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THIRD SERIES, VOL. IV

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72 FIFTH AVENUE

1900

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PREFACE.

IN the last volume of this work the most important subject treated was a remarkable war between the United States and Spain. In the present volume the subject probably of greatest interest is also, unfortunately, a conflict of arms. The reader will find it an interesting study to compare and contrast these two wars—the one being a contest between the greatest republic in the world and a comparatively weak monarchy, the other between the greatest empire in the world and two very small republics. Of both, the causes, the processes, and the result so far as reached, will be found clearly set forth in these two volumes.

On the other hand, the reader will be interested to learn what was attempted in the cause of universal peace by the conference at the Hague. A full account, with the text of the convention as adopted, is contained in the article "Netherlands."

In line with this is the benevolent work that goes on every day, in which our country leads the world. If the reader is inclined to take a pessimistic view of our present-day civilization, let him spend a little time on the twenty pages of this volume that are devoted to "Charities of the United States," wherein the subject is taken up by States alphabetically, and every paragraph is crowded with specific facts and figures. Then let him scan the ten pages filled with "Gifts and Bequests," and learn how in the past year \$66,000,000 were given for education, charity, and religion, not counting the gifts that were of less value than \$5,000. If he is still interested to know what is done for benevolence, let him look at the article "Industrial Missionary Association of Alabama," and at the articles on the religious denominations.

World's fairs are still the fashion, and the one we record in this volume is the "National Export Exposition," held in Philadelphia.

For some knowledge of the progress of the sciences in 1899, the articles "Astronomy," "Chemistry," "Metallurgy," "Meteorology," "Physics," "Physiology," and "Associations for the Advancement of Science" may be consulted.

For the financial situation, see the articles "Financial Review" and "United States, Finances of," wherein both the facts and the philosophy are set forth. And another element in our national problems may be studied in the article "Immigration Bureau." The "Geographical Progress" of the year is set forth under that title, and "Literature" and the "Fine Arts" have their usual careful record here.

The proceedings of the "Farmers' Congress," which is now an established institution, are written for this volume by Mr. Stahl, secretary of the congress.

The necrological records are longer than usual this year. Among the eminent dead in our own country are the actors John S. Clarke, Charles F. Coghlan, William Davidge, George Edgar, Sara Jewett, and Charles R. Pope, and the famous dramatist and manager Augustin Daly; the artists Mary N. Moran, Louis T. Rebisso, Giovanni Turini, and Edmund A. Willis; the authors Isaac McLellan and Emma D. E. N.

Southworth; the capitalists John I. Blair, Roswell P. Flower, Henry Hilton, Henry B. Plant, and Cornelius Vanderbilt; the clergymen Charles D. W. Bridgman, Alexander H. Clapp, Moses D. Hodge, Samuel H. Kellogg, Dwight L. Moody, John P. Newman, Charles S. Robinson, Thomas J. Sawyer, and John Williams; the educators Edmund Chadwick, Hezekiah R. Geiger, Ezra O. Kendall, Henry H. Lockwood, James O. Murray, Andrew J. Rickoff, and Eli Thayer; the inventors Ottmar Mergenthaler, Marvin C. Stone, and John P. Thompson; the jurists Nathaniel H. Clement, Charles P. Daly, George F. Danforth, Stephen J. Field, David L. Follett, and James Harlan; the lawyers Robert G. Ingersoll, William Porcher Miles, and Gideon J. Tucker; the naval officers Peirce Crosby, Philip V. Lansdale, Theodorus B. M. Mason, George H. Perkins, and Henry F. Picking; the philanthropists James W. Elwell, Moses G. Leonard, Lewis Miller, Martha B. Stevens, and Elizabeth Thompson; the publishers William H. Appleton, Robert Bonner, Moses W. Dodd, Robert Clarke, Daniel S. Ford, and Effingham Maynard; the scientists Daniel G. Brinton, Hamilton Y. Castner, Elliott Coues, Othniel C. Marsh, and Edward Orton; the statesmen Robert P. Bland, Nelson Dingley, Augustus H. Garland, Garret A. Hobart, and Francis H. Pierpont; and the soldiers Edward Ferrero, George S. Greene, Alexander L. Hawkins, Guy V. Henry, Henry Heth, Guy Howard, Henry W. Lawton, Joseph I. Reynolds, John M. Stotsenberg, William Winthrop, and Horatio G. Wright. We also lost George R. Davis, the director of the great Columbian Exposition, and George Gemünder, the famous violin maker. Sketches of all these and many more are included under the title "Obituaries, American." The foreign necrology also exhibits many serious losses. These include, besides several eminent dramatists and actors of the second grade, the actresses Mary Anne Keeley (almost as old as the century), Sarah Lane, Rose Leclercq, Mademoiselle Rhea, Charlotte Saunders, Sarah Thorne, and Emma Waller. The artists lose Harry Bates, Rosa Bonheur, Sir Arthur Blomfield, Francis Dollman, and Birket Foster; the authors, Grant Allen, Prof. William G. Blaikie, A. K. H. Boyd (the "Country Parson"), Moritz Busch, Victor Cherbuliez, Émil Ereckmann, Archibald Lampman, Emma Marshall, Florence Marryat (Mrs. Lean), Monier Williams, Elise Polko, and Johann Strauss, the famous composer; the naval officers, Sir Alexander Armstrong and Howard Colomb; the scientists, Robert Bunsen, John William Dawson, Sir William Flower, Sir Edward Frankland, and Henry Nicholson; the statesmen, Antonio Guzman (ex-President of Venezuela), Félix Faure (President of France), Count Caprivi, Emilio Castelar, Ulises Heureaux (President of Santo Domingo), John Mackenzie, Peter Mitchell, Nubar Pasha, Jovan Ristich, and Emil Welti. Among the eminent dead that are not included in any of these classes are Father Chiniquy (well known to a past generation as a popular agitator); Joseph Chitty, jurist; Oskar Bauman, explorer; and William E. Metford, inventor of a famous rifle. Great Britain lost many good soldiers in South Africa, but only one general, Andrew Wauchope. The careers of all these, and scores of others, are recorded under "Obituaries, Foreign."

Our three full-page portraits this year are of Gen. Henry W. Lawton, the gallant American soldier who was killed in the Philippines; President Kruger, of the South African Republic; and Émile Loubet, the new President of France.

The colored illustrations are a map of China (of interest because of the impending division of that empire), a map of South Africa, and a map showing the growth of the United States by accretions of territory from 1783 to the present day.

The book closes with an index that covers the four volumes of the series.

NEW YORK, May 15, 1900.

THE ANNUAL CYCLOPÆDIA.

A

ABYSSINIA, an empire in eastern Africa. The ruler, whose title is *Negus Negusti*, or King of Kings, is Menelek II, who when King of Shoa, contesting with rival claimants the succession to the throne, rendered vacant by the death of Johannes II in battle with the dervishes, signed at Ucciali a treaty with the Italians in return for arms and other aid. This treaty was signed on May 2, 1889, and confirmed in October of that year, after his position on the throne was secure. Under it Italy claimed a protectorate over Abyssinia, which

Oct. 26, 1896, by which Italy renounced the protectorate over Abyssinia, and Menelek recognized as Italian territory all the country north of the Mareb, Balese, and Muna rivers.

The Government of Abyssinia, or Ethiopia, is of a feudal character. The Kingdom of Tigre, in the northeast, the central Kingdom of Amhara, Gojam, next to it, and the powerful Kingdom of Shoa make up Abyssinia proper, the dependencies of which extend into Somaliland as far as Harrar, and embrace a large part of the country of the Gallas.

THE GIMP, OR CITADEL, AT GONDAR.

was recognized by other European governments, but was steadily denied by Menelek. In 1895 the Italians occupied Tigre, the northernmost kingdom of the empire, and advanced into Amhara as far as the city of Adowa, near which their army was surprised and surrounded by an overwhelming force on March 1, 1896, and utterly routed. Through the mediation of Russia a treaty of peace was concluded at Adis Abeba on

Besides the country to the north of Tigre, that was formerly a part of Abyssinia, with the port of Massowah, Italy reserved in the treaty of Adis Abeba a strip 180 miles wide, extending along the coast of Somaliland, having taken over the coast stations formerly belonging to Zanzibar. All the rest of Somaliland, except the part belonging to Great Britain and the French territory around Jibuti, is claimed by Abys-

sinia. In 1898 Great Britain conceded to Menelek a tract of 8,000 square miles formerly attached to British Somaliland.

The area of the empire is estimated at 150,000 square miles and the population at 3,500,000. The Negus has an army of about 150,000 men, composed of contingents drawn from the several provinces, besides which he has irregular forces and a territorial army at his command.

The Abyssinians are Christians, belonging to the Alexandrian Church. Their *abuna*, as the ecclesiastical chief is called, is always a Copt selected for the office by the Alexandrian patriarch. The *echegheh*, presiding over the monastic establishments, exercises more real authority. Jewish ceremonies are mingled with Christian rites, survivals of an earlier conversion to Judaism. The ruling caste shows evidence of the intermixture of Hebrew and Arab blood.

The people raise large herds of cattle, but till little land, although cotton and sugar cane thrive, as well as the vine and the date palm, and the coffee plant is a native of the country. Coffee, civet, wax, hides, gold, and ivory are exported. The chief imports are cotton goods of English, American, and Indian manufacture, woolen goods and raw wool, and cutlery. A railroad is planned by the French to be built from Jibutil to Harrar, 186 miles. Adis Abeba, Menelek's capital, is connected with Harrar by a telegraph. The Negus has an army of about 50,000 men, besides 15,000 between Harrar and the capital, 20,000 under Ras Makonen, and garrisons scattered over the country under other generals, all armed with modern rifles and possessing numerous Maxims and mitrailleuses. The King's chief adviser is a Swiss engineer named Ilg. His State Council is composed of the principal generals.

During the Anglo-Egyptian campaign against the Khalifa an Abyssinian force occupied the country south of Nasser, but did not attempt to co-operate with the dervishes. At the beginning of 1899 the Italians of Erythrea, fearing an attack from the Abyssinians, provisioned the fortresses of Adi Ugri, Saganeiti, Asmara, and Keren to stand a siege, and made ready an expedition for the re-enforcement, if necessary, of the local garrisons, consisting of 3,600 native regulars under Italian officers, 500 Italian regulars, 300 native artillery with 24 guns, and a native reserve militia over 3,000 strong. Mangascia, the Governor of Tigre, rebelled against the Negus in 1898, and Makonen, who was appointed Governor in his stead and was supported by the troops of Menelek, conducted a campaign against him in January, 1899, but was unable for lack of supplies to reduce him to submission. He offered to recognize the Mareb-Belesa-Muna frontier desired by the Italians, asking in return permission to buy food in their country. On Jan. 11 his forces attacked Mangascia's position, but were repelled with considerable loss. A second assault was not more successful. He then tried to turn Mangascia's flank and penetrate Agameh province, close to the Italian frontier. The Italians, however, were not alarmed, as the permission that they gave to both sides to purchase supplies and the shelter that they afforded to fugitives of the King's party, as well as to his opponents, had convinced Menelek of their neutrality. Peace was concluded between Mangascia and Makonen without a decisive engagement, the former agreeing to pay homage to Menelek and give hostages to insure his fealty, to contribute to the royal treasury, and to receive back the banished

Tigrin chieftains. Ras Mangascia and his ally, Ras Sebat, made formal submission to the Negus on Feb. 18 at Burumeida. The minor chiefs and the people of Tigre, who up to the time of the Negus Johannes were the dominant race in Ethiopia, were still unwilling to accept the rule of Menelek and the ascendancy of the Shoans, and armed bands remained in the mountains, ready to assemble once more and battle for the restoration of Mangascia. In March Menelek agreed to the Mareb-Belesa-Muna line as the permanent Italian frontier.

The advance of the British into the Soudan and their military explorations in the region of Lake Rudolf made Menelek anxious about his western frontiers. Ras Margosh, commanding one of his four principal armies, accordingly descended from the table-land of Amhara and occupied a position in Galabat. Menelek was disposed to maintain his sovereignty over this province, and also to contest the English claim to Gedaref. The French, as well as the English, have a permanent representative at the court of King Menelek, and they are building a railroad from Jibutil to Harrar and Adis Abeba, the total distance being 470 miles. Capt. Harrington, the English representative, arranged with King Menelek for a delimitation of the Egyptian frontier along the Nile valley.

AFGHANISTAN, a monarchy in central Asia, lying between Russian Turkestan and British India. The ruler is the Ameer Abdurrahman Khan, placed on the throne in July, 1880, by the British, who then occupied Cabul, the capital, having expelled Yakub Khan, son of the preceding Ameer, Shere Ali. The Indian Government has since paid an annual subsidy, at first 1,200,000 rupees, and since 1893 1,800,000 rupees, to enable Abdurrahman to consolidate his power and preserve a strong, united, and independent Afghanistan as a buffer state between the Russian dominions and India. The military forces of the Ameer consist of the feudal militia and a regular army, said to number 20,000. The artillery has 76 modern guns, and in the arsenal at Cabul are manufactured gunpowder, cartridges, rifles, and cannon by means of machinery under the superintendence of an Englishman. There are breech-loading rifles enough to arm the entire army of about 50,000 men. The Ameer's revenue is levied on the crops, his share varying from a tenth to a third, according to the amount of irrigation employed. Two crops are grown in most places, one of wheat, barley, or pulse, sown in the autumn and reaped in the spring, and one of rice, millet, or maize, sown in the spring and reaped in the autumn. Asafetida, castor oil, and madder are common products. Afghanistan is famous for its fruits, including apples, pears, almonds, peaches, apricots, plums, cherries, pomegranates, grapes, and figs, some of which are preserved and exported to India. Other exports are horses and spices. Cotton goods from India and Europe constitute 60 per cent. of the imports. Tea is imported from China. The manufactures of the country are silks, felts, carpets, sheepskin garments, and rosaries.

ALABAMA, a Southern State, admitted to the Union Dec. 14, 1819; area, 52,250 square miles. The population, according to each decennial census since admission, was 127,901 in 1820; 309,527 in 1830; 590,756 in 1840; 771,623 in 1850; 964,201 in 1860; 996,992 in 1870; 1,262,505 in 1880; and 1,513,017 in 1890. Capital, Montgomery.

Government.—The following were the State officers during the year: Governor, Joseph F.

Johnston; Secretary of State, R. P. McDavid; Treasurer, George W. Ellis; Auditor and Comptroller, Walter S. White; Attorney-General, C. G. Brown; Superintendent of Education, J. W. Abercrombie; Commissioner of Agriculture, Isaac F. Culver; Adjutant General, W. W. Brandon; Railroad Commissioners, Ross Smith, Harvey E. Jones, succeeded March 1 by A. E. Caffee and O. Kyle; State Geologist, Eugene A. Smith; Pension Examiners, Joseph N. Thompson, E. J. Oden, Joseph R. Horn; Chief Justice of the Supreme Court, Thomas N. McClellan; Associate Justices, Jonathan Haralson, John K. Tyson, Henry A. Sharpe, and James K. Dowdell; Clerk, Robert F. Ligon, Jr. All the State officers and judges are Democrats.

Finances.—The State Treasurer's report, covering transactions from Oct. 1, 1898, to Oct. 1, 1899, shows that there was at the former date \$75,243.25 in the treasury; the receipts during the year were \$2,172,755.98. The disbursements on warrants for the current year were \$2,069,603.99, and on warrants of previous years \$7,365.17, leaving a balance of \$171,030.07. Against this balance are chargeable warrants and other claims amounting to \$425,730.03, making a net deficiency of \$254,699.96. The balance in the convict fund, deducting the amount of warrants issued and not yet paid, was \$42,580.18. The principal sources of income were: State taxes of 1898, \$1,580,759.76; licenses, \$182,045.06; insurance department, \$46,514.54; on account of convict department, \$144,855.55; United States Treasury for College of Agricultural and Mechanical Arts, \$25,000; agricultural department, \$49,341.68; solicitors' fees, \$18,625.58; school indemnity lands, \$18,055.75; railroad licenses, \$12,379.06; corporations, \$11,114.18; express, telegraph, and sleeping-car companies, \$10,784.82.

The cost of the regular and special sessions of the Legislature was \$67,404.05; State salaries amounted to \$143,975.35; the railroad commission cost \$12,539.66; the agricultural department, \$39,695.66; the convict department, \$120,059.42; pensions, \$120,961.24; the interest on the bonded debt amounted to \$448,680.

Education.—The school population is given as 634,061, of whom 351,328 are white and 282,733 colored. The apportionment of State money gives \$1.05 per capita. A new law requiring teachers to take examinations from a State board of examiners is bearing rather hard upon many of the present teaching force. At an examination in September, 67 out of 100 failed to pass at the required standing.

The Alabama Polytechnic School, at Auburn, had in October 344 students. The fund belonging to the institute is made up of the interest on the bonds received from the sale of lands given by the United States Government, which is \$20,200 per annum. It also receives a sixth of the net proceeds of the funds arising from the sale of fertilizer tags, which is between \$6,500 and \$8,000 per annum. The Morrill fund is divided between the colored industrial school at Huntsville and the institute at Auburn, according to the ratio of school population. This amounts to about \$13,000 for Auburn.

Charities.—The State paid the following amounts during the year ending Sept. 30 for its charitable institutions: Bryce Insane Hospital, \$136,318; Institute for the Deaf, \$29,416.86; Academy for the Blind, \$19,320; School for Negro Deaf Mute and Blind, \$11,270.

Railroads and Telegraphs.—The total assessed value of railroad property in the State is \$47,109,052, an increase, caused by building of

new roads, of \$1,487,105 within a year. The gross earnings for the year ending June 30, 1898, were \$15,441,484.57. The operating expenses, which do not include taxes, interest on bonded indebtedness, and current liabilities, accrued and not otherwise provided for, amounted to \$11,108,000.61, being an increase of \$1,341,220.08 over the preceding year, which is 71 per cent. of gross earnings, and shows an increase of eight tenths of 1 per cent. in the proportion of operating expenses to gross earnings over the previous year.

The assessed value of telegraph property in 1899 was \$376,771, divided among seven companies.

National Banks.—The report of the Comptroller of the Currency, published in July, shows that the national banks of the State had in loans and discounts \$6,619,477.11; United States bonds to secure circulation, \$1,221,000; due from national banks, \$1,552,434.95; due from State banks and bankers, \$369,721.10; due from reserve agents, \$1,400,767.73; lawful money reserved in bank gold coin, \$385,991.50; gold certificates, \$40,960. Under liabilities capital stock paid in, \$3,105,000; due to other national banks, \$323,011.70; due to State bankers, \$192,861.74; individual deposits, \$9,255,253.60; average reserve held, 28.47 per cent.

Industries and Products.—The mineral production in 1898, in short tons, is given approximately as follows by the State Geologist: Coal, 6,509,223; coke, 1,300,254; iron ore, 2,202,158; pig iron, 1,026,459; stone for flux, 499,859; bauxite, 13,848; barrels of lime, 127,588.

The corn crop was 39,681,000 bushels, a gain of more than 9,000,000 over that of the preceding year.

The internal-revenue receipts for 1898 amounted to more than \$1,000,000.

Many new coal mines were opened in 1899, giving a prospect of an output far exceeding that of any previous year.

Huntsville is to have a new cotton mill of 200,000 spindles, built by a Massachusetts company.

Birmingham enjoyed increased prosperity in 1898. The Avondale Cotton Mills were completed at a cost of \$600,000. The street railway companies expended \$324,000 in improvements in the way of new tracks and equipments. The Southern Bell Telephone and Telegraph Company put in a new telephone exchange with underground wires at a cost of \$100,000. The bank clearings of Birmingham were \$23,777,899, an increase of \$2,870,302 over the preceding year.

Improvements.—A convention to promote the improvement of Coosa river was held at Gadsden, Sept. 26-27. It is desired to obtain an appropriation sufficient to open the river from Gadsden to Mobile. Committees were appointed on mines, forestry, agriculture, and manufactures to tabulate statistics of the products of Coosa valley and present them to the congressional Committee on Rivers and Harbors.

It is announced that the power of Tallapoosa river is to be used to furnish an electric current to Montgomery, which will light the city and supply power for all the mills and factories within its limits.

Surveys have been made for a canal from Birmingham district to Warrior river. It is proposed to use the Valley river as part of the canal, about 40 miles; about 34 locks would be required. The project includes the opening of Warrior river for navigation.

Public Lands.—The sale of certain lands given to an educational institution caused great

agitation this year in the State. Congress granted 25,000 acres of unoccupied Government lands to be sold or leased for the benefit of the Industrial School for Girls, at Montevallo; the proceeds of sale were to remain forever as a fund for the use of the school. A like amount of land was granted to the Normal Institute for Colored Youths, at Tuskegee. The Montevallo lands, according to the reports, were located, or were intended to be located, in the coal districts near Warrior river, and were summarily bargained away, or an option was given, to a syndicate already holding lands in the region, at \$5 an acre, a price alleged to be much below their value, and, as it appears, no opportunity was given for other bids, but the sale as alleged was a private transaction between the representative of the syndicate and the Governor, to whom the board of managers of the school had given authority to dispose of the lands.

The lands given to the Tuskegee school have not been sold.

About 3,400 acres of lands belonging to the State University were sold in the autumn at \$12.50 an acre. They are coal lands in Walker County, and are alleged to be worth much more.

Lawlessness.—An attempt to capture a negro alleged to be guilty of assault in Jefferson County resulted in a riot between white and black miners on June 27, in which two negroes were killed and two others mortally wounded. The blacks were said to belong to a secret organization known as the "Knights of Africa," or the "Mysterious Ten." Several cases of lynching occurred during the year: a negro suspected of burning a barn was hanged by lynchers at Josie Beat in January; another, identified as the accomplice of a murderer, was shot by a mob near Eoline in June; near Forrest, in August, a mob hanged a negro who had attempted an assault upon a young white girl; two negroes who with others attacked a white man with whom they had quarreled about a debt they owed him were killed by a mob of masked men, Aug. 19, near Eclectic; and a negro was hanged for attempted assault on a white woman, in November, near Moulton, after being taken from jail by a mob of about 100 men.

Legislative Session.—The General Assembly convened Nov. 15, 1898, and adjourned Feb. 23, 1899. R. M. Cunningham was President of the Senate and C. E. Waller Speaker of the House.

A bill calling for an election on the question of a constitutional convention was the occasion of hot debate. The new Constitution desired by those in favor of the bill is like those recently adopted by other Southern States, designed to establish "white supremacy," as appears from the debate, from which the following passage is taken: "I believe," said Mr. Waller, Speaker of the House, "that this day is destined to be the most glorious in the history of Alabama. It means salvation and rescue from a system that has undermined and corrupted the integrity and honesty of the State. I would rather that my little prattling boys lay in their graves than that I should hand down to them the taint of the Constitution under which we are living. Let these gentlemen who oppose this bill come to me and measure in dollars the cost of purity. I disagree with these gentlemen as to their estimates of the cost of a convention. I feel that it would not cost more than \$25,000 or \$30,000. But if it were to cost five times the amount they estimate the necessary money could be raised from voluntary subscriptions. The taxes I pay now are a burden to me, but cheerfully would I

increase them tenfold if by doing so I could materially aid in getting for our State a new and honest Constitution. I defy any of these gentlemen to come to me and measure in dollars the purity of their sons. It has been intimated that a new constitution would jeopardize the suffrages of white men. I say this: If any crowd of men engage in a conspiracy to disfranchise a single poor white man I stand ready to join a body of men to lynch the culprits. It has never been purposed by the friends of a constitutional convention in Alabama to disfranchise a solitary white man."

"How will you keep from doing it?" Mr. Spears asked, interrupting.

"We will put it on the broad ground of patriotism," Mr. Waller answered. "I am sorry that such a question should be asked at this time. I am sorry that faithful Democrats should so embarrass our plans at this juncture as to make and evoke speeches that may be used against us by our enemies. But we will provide for the suffrage of those who have fought for their country or their relatives within the fifth degree of kin."

Mr. Arrington followed. He favored white supremacy. In Mississippi less than one fifteenth of the illiterate white men were disfranchised by the new Constitution. "There is no telling what future awaits us if we continue in the present manner," he said. "The throes from which North Carolina has just subsided should teach us a lesson. I say to you that we may expect as bad or worse if we do not act without delay. Why, just before I left home to come here a negro named Armstrong came to me and said he had been offered the postmastership at his town. He asked for advice. I told him that as surely as the sun shone he would be shot to death within twenty-four hours after he made his bond as postmaster. He took my advice and decided not to get the postmastership."

The bill was passed by 52 to 41 in the House and 17 to 12 in the Senate. It fixed the time for the election the first Monday in July, 1899, and delegates were to be chosen at the same time. The bill was signed by the Governor.

An act abolishing the Court of County Commissioners of Jefferson County and creating a revenue board to take its place, was brought before the Supreme Court for a test as to its constitutionality. It was passed through the Senate when a bare quorum was present; and, as one of the Senators voting was lieutenant colonel of the Fifth Regiment of immunes, it was claimed that he could not legally hold a seat in the Legislature.

A new revenue law imposes taxes on many kinds of business not heretofore taxed, and amends the provisions in regard to others. Among the new subjects coming under the law are billposters, brokers, bicycles, book agents, cigar stands, cold storage, dog or pony shows, cotton buyers, coal and coke, feather renovators, dealers in securities, ferries and toll bridges, fruit stands, horse dealers, ice factories, laundries, slot machines, news companies, sellers of patent rights, photographers, plumbers, dealers in stocks and bonds, telephone companies, and warehouse and elevator companies.

The House passed a bill increasing the appropriation for public schools from \$350,000 to \$600,000; but the State Auditor published figures to show that this would involve the State in a debt of about \$150,000, and the amount was reduced to \$450,000. Other increases in appropriations were: For salary of a supernumerary judge,

\$2,500; for tax commissioners, \$2,400; the Auditor's salary was raised from \$1,800 to \$2,400; the Adjutant General's was fixed at \$1,500.

An important act was one exempting from taxation cotton in the hands of the producer or purchased for shipment and pig iron for one year; after that the rate will be \$2 for 100 tons.

Another act authorized the examination of the titles by which sixteenth-section lands are held, and the bringing of suits to recover in certain cases where they have not been properly paid for. These are the lands that were sold for the benefit of the school fund, having been given to the State upon its admission by Congress for that purpose. Authority to sell the land was granted to the State in 1827, and the greater part was sold within a few years from that date.

The special tax for relief of disabled Confederate soldiers and the widows of deceased soldiers was raised from half a mill to one mill.

The law on the consolidation and adjustment of the bonded debt was amended by changes in important particulars. The Governor has power to refund the debt in long-term gold bonds, the principal condition being that he shall secure a lower rate of interest.

A bill in the interest of temperance provided for dispensaries in about 17 counties, to be under the control of local authorities.

Other bills were:

To authorize courts of equity jurisdiction to direct the sale of property and franchises of quasi-public corporations.

To punish the making or certifying false and fraudulent abstracts of title.

To provide for regulation of corporations transacting life insurance business.

To appropriate \$7,500 to the Alabama Industrial School for Girls, at Montevallo, and to provide for additional buildings there.

To establish a charter for Birmingham.

Providing that the convict fund shall be transferred by the Treasurer into the general fund.

For the preservation of game in Montgomery County.

A. H. Alston was elected supernumerary judge by the Legislature in joint session.

A bill requiring persons convicted of larceny and some other like offenses to work out the value of the property taken was vetoed as being opposed to the spirit of the constitutional provision forbidding imprisonment for debt.

Conventions were held for the nomination of delegates to the Constitutional Convention, but in April the Governor issued a circular letter to members of the Legislature asking their advice as to the advisability of calling an extra session of the Legislature to repeal the act. The State Convention of the Democratic party had given its approval to the measure, and recommended the party to support it at the polls. The reasons for the special session were given in the circular letter as follow:

"A number of Democrats have urged me to call a special session of the General Assembly for the sole purpose of considering whether the act authorizing a vote on the question of calling a constitutional convention should be repealed, and whether any amendments to the Constitution should be submitted for ratification. The argument used in this appeal to me is, that there is serious division in our party on this question; that many loyal Democrats are opposed to a convention; that the Democrats in the Legislature and the late State convention were almost evenly divided; that many Democrats will not vote for the convention; that if it should fail it would

seriously damage our party and tend to build up a formidable opposition."

It also urged that since the declaration that the Constitution framed must be submitted back for ratification a plain amendment framed by the General Assembly would accomplish the same result and avoid the cost of a convention.

The answers to the letter were summarized as follow: In the Senate, 16 in favor of repeal, 5 opposed, 5 doubtful, and 15 not heard from; in the House, 51 in favor, 26 opposed, 10 in doubt, and 9 not heard from. The Governor therefore issued a proclamation convening the General Assembly in extra session May 2, naming the following subjects for consideration: 1. The repeal of the law submitting the question of calling a constitutional convention to the people. 2. An amendment regulating the suffrage in the State to be submitted to the people. 3. A primary-election law.

The proclamation was accompanied by a statement given to the press by the Governor, offering among others the following explanations of his reasons for asking the repeal of the act after having signed it:

"The General Assembly, by narrow majorities—5 in the Senate and 10 in the House—decided to submit to the electors the question as to whether or not they desired a constitutional convention. While this was not in accord with my views, I did not feel at liberty to withhold my assent from a measure that permitted every voter in the State to decide for himself whether he desired a convention to be held or not. Since then a Democratic State convention has been held, and, without the question ever having been submitted to the Democratic voters or having been considered by them, an attempt was made to take away from them the right given by the Legislature to decide for themselves whether they desired a convention or not, and to bind them to vote for a convention, whether approved by their judgment and conscience or not. This has been followed up by the threat that nominees of county conventions shall disobey the wishes of the conventions which nominated them and declare for the Constitutional Convention or be driven to resign. Instead of the nonpartisan convention designed by the General Assembly, the plan now seems to be to give us a constitution framed by partisans seeking only political advantage for those engineering and directing the cause. Some of the friends of the convention claim that the pledges given in the platform practically confine the convention to a consideration of the suffrage amendment. If this be true, and the pledges are faithfully observed, I am sure that the 133 members of the General Assembly are quite as competent to frame amendments and are quite as patriotic and representative of the people of Alabama as the delegates elected to the Constitutional Convention, and can do the work at one tenth the cost of a constitutional convention.

"The pledge to submit the proposed Constitution to the ratification of the people is ominously silent as to who shall be qualified electors to vote on it. The convention seems to have the power to deny to those disfranchised by it the right to vote on ratification. Even if we can trust every member of the convention to keep in good faith every pledge made, and the previous record of some of them does not inspire confidence, then the pledges did not go far enough.

"Our present Constitution guards with jealous care many rights dear to the people. Among others:

"1. It provides a homestead exemption to shelter every family in Alabama.

"2. It prohibits the State and counties and municipalities from indorsing bonds of railroads or lending their aid or credit to any corporation.

"3. It secures to the people the right to elect their own judges and other officials.

"4. It prohibits imprisonment for debt.

"5. It secures the right of trial by jury.

"No pledge is given that a single one of these provisions shall be preserved inviolate."

The State committee of the Republican party met early in April, and declared the holding of a constitutional convention to be "unwise and unnecessary, and that its declared purpose of disfranchising any of the present voters of the State is unjust and in violation of the spirit of the Federal Constitution."

The Democratic State Committee held a meeting, April 21, and made strong protest against the repeal of the convention act.

In his message at the opening of the special session, which lasted from May 2 to May 17, the Governor said: "It is claimed by the advocates of the convention that the main question to be considered is an amendment that will secure white supremacy, that no time should be lost, but the greatest haste be taken to accomplish this. I suppose there are few thoughtful citizens, white or black, who do not believe that some change should be made in this direction. The necessity for hot haste—haste that will not permit any reflection—is not apparent. White supremacy is as complete and all-pervading to-day throughout the jurisdiction and domain of our State as it is possible to be. There is not a negro in all the Commonwealth holding an office under the present Constitution, not a justice of the peace, not a constable nor a single member of the General Assembly, nor has there been one for nearly a generation. It seems to me that the franchise can be settled with less friction and more certainty and security by a plain amendment that the people can understand and vote upon intelligently than by the framing of a new constitution. If any material changes be made in the Constitution in any other respect (and immaterial ones should not be considered), then every elector opposed to any one of the changes made would vote against the whole instrument; whereas a simple and plain suffrage amendment would command not only the intelligent and uncoerced vote of every Democrat, but of practically all the white and many intelligent colored voters in the State."

The only bills passed were two—one repealing the act of the regular session providing for a constitutional convention, and one appropriating money to pay the expenses of the special session. No primary election law was passed, and no constitutional amendments were submitted.

ANGLICAN CHURCHES. Among the items of Church growth and activity brought to notice in the Official Yearbook of the Church of England for 1899 is the increase in the number of confirmations. While in single years this varies considerably, the tables for a period of ten years show a noticeable advance in the actual number of confirmations and in the centers. The Sunday-school work appears to be growing not very rapidly, the attendance, including only children under fourteen years of age, being 2,410,201 in 1898 against 2,393,372 in 1897. The number of appropriated sittings in churches increased from 1,421,906 in 1896 to 1,878,386 in 1898, while the free sittings advanced from 4,660,206 to 4,793,008. Forty-three hundred and twenty-nine

churches were open for daily prayer in 1898 against 4,117 in 1897. A decided increase in voluntary offerings is shown, from £7,051,778 in 1897 to £7,506,354 in 1898. The figures, however, include legacies of exceptionally large amounts and specific gifts for church building, an instance being mentioned of a new church costing £100,000 which was built by the munificence of a single donor. The number of deacons ordained in 1898 (638) was smaller than at any previous period during the past twenty years.

Church Missionary Society.—The one hundredth annual meeting of the Church Missionary Society was held in London, May 2. Sir John Kennaway, M.P., presided. The expenditure during the year had been £325,223, and the receipts, apart from those for the Centenary fund, £315,126, leaving a deficiency of a little more than £10,000, which, when added to the adverse balance brought forward from the previous year, made a total deficiency of £30,110. The addition of the year's receipts for the Centenary fund (£53,260) would, however, more than cover this. Including special funds, the total amount to be acknowledged for the year was £379,827. The two thousand and third missionary of the society, not counting wives of missionaries, had been sent out in March. The committee were preparing to send missionaries to the Soudan as soon as the restrictions should be removed. The adult converts from paganism and Mohammedanism admitted to the Church by baptism during the year numbered 6,829. The numerical statistics represented 496 stations, with 403 ordained and 128 lay European missionaries, 314 wives of missionaries and 273 other women, making a total of 1,118 European workers; 303 native clergy, 5,708 native lay teachers, 245,769 native Christian adherents (including catechumens), 65,387 native communicants, 86,798 pupils, and 16,047 baptisms during the year. At the time of the meeting £70,000 had been paid and promised to the Centenary fund. The society celebrated its centenary in London during the week beginning April 9. A brief historical statement prepared by the officers with reference to the celebration showed that the society was founded at a meeting held in the Castle and Falcon Hotel, Aldersgate Street, London, April 12, 1799, when 25 persons were present. It had "always held to evangelical church principles, though it had uniformly declined to enter into home controversies." In early days it was looked upon coldly by the bishops, and it was not till 1841 that they joined it in any numbers. The first candidate to offer his services was the famous Henry Martyn, senior wrangler in 1801, and he eventually went to India as a chaplain. In all, 2,003 missionaries had labored in connection with the society. Work was now carried on in West and East Africa, Uganda, Egypt, Palestine, Persia, India, Mauritius, Ceylon, China, Japan, North-west Canada, British Columbia, and New Zealand, and more than 60 languages were used. Native churches, self-supporting and almost independent, had been formed in Sierra Leone, Lagos, and on the Niger. The society's list of living converts numbered 240,000. The service of the society comprised 1,096 European missionaries, including wives, and 55 medical missionaries. It had at home about 3,700 local missionary associations, and received contributions from about 5,000 parishes. Its magazines had an aggregate circulation of about 198,000 copies a month. A series of inscriptions hung upon the hall in which one of the meetings was held gave the dates in which the several mis-

sions were established as follow: Bengal, 1815; Northwest Provinces, 1813; Punjab and Sindh, 1852; Bombay and West India, 1820; Madras and South India, 1814; Travancore and Cochin, 1816; Ceylon, 1818; Telugu, 1841; South China, 1850; Mid China, 1844; West China, 1891; Japan, 1869; Egypt, 1882; Palestine, 1851; Persia, 1875; Turkish Arabia, 1882; Equatorial Africa, 1844; Uganda, 1876; Northwest Canada, 1822; British Columbia, 1856; Sierra Leone, 1804; Yoruba, 1844; Niger, 1857; New Zealand, 1814. A preliminary sermon to the celebration was preached in St. Paul's Cathedral by the Bishop of Derry, April 9. The first day's meeting was held April 10 in St. Bride's Church, Fleet Street, when addresses appropriate to the occasion were delivered. In the evening the Archbishop of Canterbury preached in St. Paul's Cathedral upon *The Beginning of the Catholicity of the Church*, in the setting apart of Barnabas and Saul, from which he passed to a review of the growth of the society. The second day's meetings were held in Exeter Hall, and were devoted to a review of the history of the society. Among the special topics and departments of missionary activity that came under notice in the addresses were Mohammedanism as an obstacle, the mission to Uganda, missionary and evangelical methods, educational work as an aggressive force and a defensive agency, women's work, medical work, literary work, and *The Story of the Society at Home during the Hundred Years*. In connection with this subject it was represented that since 1887, when the executive committee had resolved never to reject on financial grounds any candidate who was spiritually and mentally and physically fit for the work, the revenue had increased from £221,000 to £322,000, and the number of missionaries from 309 to 777. On the third day, April 13, the actual anniversary day, resolutions were adopted expressing thanks to God for the successful career of the society; acknowledging much on the part of the society that might cause sorrow and humiliation, confessing with shame the grievous disproportion between what the Church had done during the past century and what it ought to have done, lamenting indifference shown by many to the conversion of the world, and deploring the vast areas still unevangelized; and, looking to the future, expressing the belief that "in the scriptural doctrine and primitive order of the Church of England, in the history and character of the English people, and in their commercial and political power there are peculiar privileges which constitute a divine call to the Christians of the empire to missionary enterprise in a far larger and bolder spirit than has ever yet been manifested." The fourth day of the celebration was devoted to a review of Church and Protestant missions other than those of the Church Missionary Society, in which the Universities' Mission in Central Africa, the Society of the Protestant Episcopal Church in the United States, and the South Sea and Australian Missions were represented. Two sessions were given to Scottish, foreign Protestant, and nonconformist missions, when representatives of the Established and Free Churches of Scotland, the Paris Missionary Society, the Basel Mission, the British and Foreign Bible Society, the Wesleyan Missionary Society, and the London Missionary Society spoke of the operations of those bodies. On the fifth day subjects relating to the extension of the work of the society and fields for new missions were discussed. The last day's meeting, April 15, was for boys and girls, when medals were distributed.

Propagation Society.—The public meeting in connection with the one hundred and ninety-eighth anniversary of the Society for the Propagation of the Gospel in Foreign Parts was held May 4, the Archbishop of Canterbury presiding. The year's income of the society had been £132,355, of which £17,994 were from legacies. The missionary force comprised 787 ordained ministers, 12 of whom were bishops, and 2,900 lay teachers, with 3,200 students in the society's colleges and 38,000 children in the Asiatic and African schools. More than the usual number of offers of service abroad had been received, and a large increase was shown in the number of clergy placed on the society's list and in the native ministry, as well as an increase of £2,000 in the voluntary gifts. The society had a church car in Mashonaland running over 500 miles of railway to Bulawayo. In Guiana the Chinese had built a handsome and substantial church for themselves. A bicentenary celebration of the society is appointed to begin on June 16, 1900, the one hundred and ninety-ninth anniversary of the granting of its charter, and to close on the same day of 1901.

The Universities' Mission.—The report of the Universities' Mission to Central Africa, presented at the annual meeting, June 6, showed that mission work of the ordinary kind was scattered over about 250,000 square miles. The nurseries, schools, homes, and workshops included more than 300 children, while 780 were entirely supported by the mission. Thirty-three men were required to raise their staff to a *minimum* pitch of efficiency. Occasion having arisen by the departure for England in 1898 of the European ladies, the bishop had felt able to give the entire management of the girls' school at Likoma to a native woman teacher, with the result that the average attendance had risen from 50 to 75, and had been steadily maintained throughout the year. The suppression of the slave trade by the German Government had acted in a way that was not altogether for the advantage of the mission. The people, instead of gathering in large numbers, were now separating into small communities, and the missionary, instead of having one center, where he could work with comparative ease, found himself in charge of a number of small hamlets. A steamer had been built for Lake Nyassa, and £3,000 were needed in order to send it there.

The Bishop of London's Fund.—The Bishop of London's fund for church building in the metropolis made grants during the year for 187 permanent churches, of which 171 were parochial churches and the others "chapels of ease." It was represented at the annual meeting of the subscribers, May 1, that, while the provision of sufficient churches for themselves seemed hopeless to the growing populations of the outskirts of London, where the bishop's fund furnished the nucleus, the people of the neighborhood took heart and joined in the work. A resolution was adopted affirming the need of increased efforts to meet adequately the spiritual needs by means of the supply of mission clergy, mission rooms and churches, and additional curates and lay agents.

The Church Army.—The seventeenth annual report of the Church Army, presented at the anniversary, May 2 and 3, describes a large variety of operations which were conducted by about 150 evangelists, colporteurs, nurses, rescue workers, pioneer and tent missionaries, social officers, and other agents. Sixty-five mission vans were at work in 33 dioceses. The work done in the

72 labor homes and other institutions had realized £25,000 in the past year, and nearly £14,000 had been paid in wages to the inmates. Grants had been received from a number of boards of home guardians, and practical sympathy from the home office, the prison commissioners, judges, magistrates, and other authorities. In the lodging houses 80,000 beds had been let, 3,480 men had passed through the Thames Embankment Rescue Home, and more than 600 women and girls through the London homes provided for them. The general and evangelical accounts showed an income of £40,208, and an expenditure of £39,027; the accounts of the social departments an income of £46,246, and an expenditure of £46,405. The balance sheet showed an excess of £28,442 in assets over liabilities.

The Church Union.—At the annual meeting of the English Church Union, June 15, it was represented by the presiding officer that 7,850 persons had joined the union since June 1, 1898, of whom 5,450 had joined during 1899. The present whole number of members, 37,900, included 4,370 clergy. Never in the forty years of its existence had the union been more united or more determined to protect the doctrines and privileges of the Church. An address by Lord Halifax, president of the union, was read in his absence on account of illness, criticising recent proceedings. The resolutions unanimously agreed to by the union in 1877 were unanimously reaffirmed. They deny that the secular power has authority in matters purely spiritual.

The Liberation Society.—The Council of the Society for the Liberation of Religion from the Patronage and Control of the State at its annual meeting determined to seek to have disestablishment made a plank in the Liberal platform at the next general election, and the society at the public meeting held the same day adopted a resolution approving of the step.

Woman's Help Society.—The Church of England Woman's Help Society has for its objects the cultivation of personal purity and of religion, and works among the roughest girls. The report made at its anniversary, May 3, showed that it had made considerable progress, and was doing much good in a quiet and unobtrusive way.

Ecclesiastical Procedure.—At a meeting of all the bishops, held at Lambeth Palace, Jan. 17, it was resolved that a bill for the reform of the ecclesiastical courts, drawn on the lines laid down by the Royal Commission in 1883, should be submitted to the convocations at their meetings in February. The Royal Commission referred to was appointed in May, 1881, at the instance of Archbishop Taft, of Canterbury, to inquire into the constitution and working of the ecclesiastical courts. It presented its report, after two years of consideration, in August, 1883. It was understood that the proposed measure would recommend that complaints against a clergyman be heard and pronounced upon first by the bishop. If the respondent failed to submit, the case should be brought before a diocesan court consisting of the bishop with a legal and a theological adviser. From this court an appeal should be to the provincial court of the archbishop, and from this court a final appeal to the Crown, represented by a permanent body of lay judges.

Convocation of Canterbury.—At the meeting of the Convocation of Canterbury, Feb. 8, the Bishop of London said in the upper house that he had received a petition, signed John Kensit, for presentation to the house. His grace the president had, however, expressed the opinion that it was not desirable that the house

should receive it, as it contained reflections on the conduct of the bishops. The archbishop said that the petition ended with a very improper sentence, implying a sort of threat against the bishops, which it would be very unseemly indeed for that house to allow to appear on its records. He had, therefore, requested the Bishop of London to be good enough not to present it, and he could, if he thought fit, tell Mr. John Kensit the reason why.

The text of this petition as it appeared in the newspapers was as follows:

"To the Most Reverend the President and the Right Reverend the Bishops of the Upper House of the Convocation of Canterbury: The honorable petition of John Kensit, of 18 Paternoster Row, in the city and diocese of London, sheweth that since your petitioner has approached your right reverend house there has been throughout the country a widespread feeling of alarm and indignation at the prevalence in very many churches in every diocese throughout the country of practices distinctly Roman in their origin and use, and that to the ordinary layman there seem to have been few, if any, changes in ritual acknowledged to be legal; that, nevertheless, your lordships and divers organs of the press allege that the evil is of very restricted character; that your petitioner, with multitudes of others, believes this statement to be utterly unfounded; and he therefore humbly prays that your grace and your right reverend brethren, without delay, will furnish to the Church at large a statement of the number and names of churches in which, by your godly admonitions in private, excesses have been abandoned and unsound doctrines are no longer taught from the pulpit, and Romanizing manuals have ceased to be circulated. That your petitioner, at the request of his diocesan, the Lord Bishop of London, has scrupulously refrained from any attempt to interfere with or protest against the services in the churches to which this petition alludes; and that he would deeply regret if, through episcopal supineness, he has to resume on principle a form of protest distasteful to himself, but which seems the only course which really arrests public attention. And your petitioner will ever pray.

"JOHN KENSIT, 18 Paternoster Row.

"Feb. 8, 1899."

After the remarks on Mr. Kensit's petition the archbishop made a statement in regard to the bill for the reform of the ecclesiastical courts, to the proposed court of the archbishops for the interpretation of the rubrics, and to a joint meeting of the two convocations which was contemplated to be held in the ensuing April.

The lower house adopted a resolution of thanks to the archbishop and their lords of the upper house for proposing to rehabilitate the ecclesiastical courts of the country, "which as at present constituted do not command the confidence of the clergy as a body, and will do their utmost to consider fully the measure sent down for consideration. At the same time they desire to express their loyalty to the bishops and the directions of the Prayer Book, and their determination to do all that lies in their power to secure obedience to both the written and living voice of the Church of England, thereby assuaging the prevailing anxiety." An article was adopted requesting the bishops to institute measures looking to the relief of the clergy from burdens imposed upon their consciences by certain provisions of the marriage act of 1897. The house by resolution expressed its dutiful desire to uphold the

authority of their lordships of the upper house, and its readiness, on their direction, to give its careful consideration to subjects that concern the ritual and doctrine of the Church. "At the same time, having reasons to fear lest individual clergymen may be led to make changes on their own responsibility, this house feels constrained to exhort its brethren in the ministry to entertain with caution modes of thought and action which may weaken not only the rightful authority of the synod, but the very independence of the Church itself."

In the House of Laymen a resolution was adopted declaring that the house, "while welcoming the noble effort now making to elevate and instruct the people of the Soudan and Upper Egypt through the means of the Gordon College, at Khartoum, is nevertheless of the opinion that no effort to perpetuate the memory of Gen. Gordon can be considered adequate which does not include the direct proclamation of the gospel of Jesus Christ to all the races inhabiting the upper basin of the Nile, which has recently been brought under the control of England. They would express their earnest hope that at the earliest moment consistent with public safety the Government of the Soudan will remove the restrictions at present existing upon the entrance of missionaries into Khartoum."

At a joint meeting of the upper and lower houses and the House of Laymen, held on the first day of the sessions, the archbishop made a full statement in regard to matters affecting the existing crisis in the Church. He spoke first of the offer of the archbishops to hear cases of disputed ritual. Next he explained the nature of the bill which they proposed to introduce into Parliament. A bill had been drawn up about ten years previously by Archbishop Benson and introduced into the House of Lords, but not proceeded with. It was now reprinted, in order to make it a basis of consideration for any such reforms as would be desirable for them to introduce into Parliament and endeavor to induce Parliament to accept. If that was to be of any use, it must be considered with very great care. They ought not, however, to be in any great hurry, but should thoroughly look at the bill from all points of view previous to putting it before either house of Parliament. The archbishop felt very confident that they would be able to get things straight if only they could get the clergy and the laity to second their endeavors to proceed quietly and gently, and to seek, above all, not each his own particular fancy or predilections, but the good of the Church as a whole.

At the meeting of Convocation, April 25, the Bishop of London in the upper house presented a petition, signed by 768 medical practitioners from all counties in England and Wales, upon the subject of the communion of the sick. The petition represented that there were many exceptional cases in which the office for that service provided in the Prayer Book was too long, and its use detrimental and even occasionally dangerous to the sick person. Such exceptional cases were acute disease; long-standing wasting diseases, such as the latest stages of consumption and cancer; infectious diseases, when the priest and others are unnecessarily exposed to infection and liable to spread it; cases of sudden emergency, in which there is no time to consecrate the elements; and where there is no convenient place in which the sacrament can be reverently celebrated. As professional men the signers thought that "the sacrament should be

administered in the way which is easiest to the sick and dying, and that in the cases mentioned the custom of taking the sacrament to the sick ought to be specially permitted, as in former times, to the end that these very real difficulties and dangers may as far as possible be avoided." The experiment having been recently begun by the proprietors of two of the daily newspapers of London of publishing their journals on Sunday, as well as on the week days, the house took occasion to express its regret at the action, and its trust that the innovation, which would put a great pressure upon other journals to take a like course, and which, "if allowed to spread, will lead to a great extension of Sunday labor and an obliteration of the distinction between the Lord's Day and other days of the week, may be emphatically and effectually discouraged by public opinion, and that Churchmen will take an active part in the protest."

A resolution was passed in the lower house with reference to a license from the Crown or a declaratory act authorizing the draft of a canon for the more adequate representation of the clergy and laity in convocation. In another resolution the house expressed its opinion that "the present difficulties in the Church will be most permanently met by finding a fuller expression, consistently with the union between Church and state, for the principle of corporate Church action in the conduct of Church affairs, and its trust that a larger measure of freedom in the management of her internal affairs may be accorded to the Church, acting in and through her duly constituted assemblies, regard being had to the respective responsibilities of clergy and faithful laity," and requested the archbishop and bishops constituting the upper house to take such steps with a view to securing these objects as in their wisdom they might think fit.

Resolutions were passed in the House of Laymen asking the archbishop to take into consideration the desirability of a service being provided by authority to be used in cases of cremation; expressing the hope that the Government would speedily see its way to carry out a policy for conferring greater autonomy on the Church; and declaring that, while deploring the practice of any observances which could not fairly be held to be within the comprehensive limits of the Church of England, the house strongly protested against the Church discipline bill as inconsistent with the episcopal government of the Church.

At its meeting in July the Convocation, in all its three houses, discussed the ecclesiastical procedure bill.

Convocation of York.—The Convocation of York opened, Feb. 9, with a joint meeting of the two houses, when the archbishop spoke concerning the crisis in the Church, and particularly concerning the arrangement with the Archbishop of Canterbury for the archiepiscopal hearing of cases of disputed ritual and of the contemplated ecclesiastical courts bill. The upper house having resolved that the increasing practice among the clergy of encouraging habitual, systematic, or compulsory private confession demanded the serious attention of the bishops, a committee of the whole house was appointed to consider the subject. A resolution was adopted approving the assembling at an early date of the synods of the two provinces in one place. A resolution similar to one adopted in the lower house of the Convocation of Canterbury thanked the archbishop and bishops for proposing to rehabilitate the ecclesiastical courts of the country, and expressed

loyalty to the bishops and the directions of the existing Prayer Book.

At the session of the Convocation, May 3, a petition was presented from members of the medical profession urging that there were many exceptional cases in which the office for the communion provided in the Prayer Book is too long, and its use detrimental and occasionally even dangerous to the sick person. The discussion of the petition related to the difficulty of providing such a service as was called for in it, and was terminated by an observation by the archbishop that he thought it would be very much better if, after prolonged consultation, they were to endeavor to devise some means of meeting the difficulty, instead of leaving it, as they did at present, to the bishops and clergy very much to adopt their own means. A report was unanimously adopted on the fasting reception of the holy communion, which the bishop said he hoped would be a valuable help not only toward relieving consciences that were spiritually perplexed when such demands were made upon them as were made in the insistence upon fasting communion, but also in emphasizing the spiritual character of the preparation which was required for the holy sacrament. Resolutions were adopted in both houses condemning the issuing of newspapers on seven days in the week.

Joint Meeting of the Convocations.—The upper and the lower houses of the Convocations of Canterbury and of York having severally resolved themselves into committee, the four houses met in the Church House, London, in joint session, July 6. The archbishops presided jointly, but the Archbishop of Canterbury took the lead in the proceedings. The meeting was held with closed doors. Resolutions were submitted as "propositions for consideration as regards the appeal to the Crown and to the perpetual court": 1. That an appeal to the Crown for lack of justice shall be allowed in all cases. 2. That the subject of the appeal shall be limited to the question whether the defendant has done or taught what the Church of England has directly or by necessary implication forbidden, or omitted to do what the Church of England has expressly enjoined. 3. That the right of appeal shall be allowed to both parties, but only when there has been a difference in the judgments of the diocesan and provincial courts, unless the Crown shall give leave to appeal. These resolutions were approved. A fourth proposition—"that the Crown shall refer the appeal to a permanent committee of the Privy Council learned in the law, being also members of the Church of England"—raised discussion, in which important differences of opinion were made evident. After the conclusion of the joint session on the second day the Archbishop of Canterbury gave out as its ultimate finding a resolution, unanimously carried, that "the meeting of the committee of the whole houses of the Northern and Southern Convocations, after considering the various propositions which have been discussed during its sessions, is of opinion that further consideration of these propositions is necessary before practical steps are taken in the direction of legislation, and that the archbishops be requested, in accordance with the law and custom of Convocation, to bring the matter before their respective convocations at their next sessions." A resolution was also passed declaring that "in the interests of the Church it is desirable that a joint meeting of the two convocations should be held in each year." The resolutions adopted by the four houses were con-

sidered by the houses of laymen of the two convocations in joint convention, which, while thanking the archbishops for submitting the propositions, expressed the opinion that "it is undesirable to press forward new legislation for courts to deal with questions of doctrine and ritual when opinion is so much divided upon the form which it should assume, and when the archbishops are taking steps to place church discipline upon a better footing by the establishment of better relations between the episcopal bench and the parochial clergy." The laymen also resolved that, "in the interest of the Church, it is desirable that a joint meeting of the two convocations be periodically held, and that power should be given them for that purpose, and letters of business be issued for their action as the representative body of the Church of England"; that "it is desirable that the houses of laymen should have a more recognized position as consultative bodies of the Church, and should meet jointly when the two convocations do so"; and that "it is desirable in the interests of the Church that a joint meeting of the two houses of laymen should be held from time to time at Westminster."

The Ritualistic Crisis.—The controversy over ritualism was the predominant topic in all circles of the Church during the whole year. Mr. Francis Peek, in the *Contemporary Review* for January, charged certain of the bishops with ordaining candidates whom they knew, from the character of the colleges whence they came and of the churches to which they were to be appointed, would violate their obligations to use in service the forms prescribed in the Prayer Book and no other. Regarding the distribution of patronage by the present bishops, he claimed to show that they had appointed 28 supporters of ritualism as archdeacons, 25 to residentiary canonries, and 318 to honorary canonries; and 70 members of the Confraternity of the Blessed Sacrament to livings, with a pecuniary benefit to the ritualists of £47,000 a year. The writer further called on all friends of the Reformation to withhold contributions from those religious societies on whose boards members of the English Church Union are represented, and from the building of all churches "which are not protected from ecclesiastical patronage." A Churchmen's Council was formed in Liverpool, comprising about 100 clergymen of the dioceses and about 200 laymen, many of whom held the office of church warden; and a laymen's league, under the direction of which meetings were held in various parts of the city, and which had a bill drafted for the suppression of illegalities in the Church. A similar bill, drafted by the laymen's league, and approved by a committee of the National Club in London appointed to consider legislation in the Protestant interest, and also by the Church Association, dealt specifically, under the head of offenses, with the word mass, the issue of mass books, everything like compulsion in regard to confession, and all unauthorized rites, ceremonies, and services, and made them cognizable under two comprehensive clauses; contemplated the abolition of the episcopal veto, while granting the bishop not less than a month during which he could bring his own disciplinary powers to bear upon the offender; after the lapse of which period, upon the repetition of the offense, proceedings might follow before a lay judge, with an assessor appointed by the bishop. The bill provided that the trial be held at the nearest place to the one where the offense was committed. Any two members of the Church of England resident in the diocese might be the

complainants, they giving security for costs. The bill further provided that if judgment be obtained inhibition should follow immediately, except the offender give a written undertaking to discontinue the offense or offenses complained of. Failing such undertaking within three months, inhibition should result upon three judgments obtained against the same person within five years. An appeal to her Majesty in Council was given, and all power of imprisonment was abolished by the bill.

At a meeting held at the Church House, Jan. 11, under the auspices of the National Protestant Church Union, a memorial which had already been signed by many peers, members of Parliament, and clergymen, was adopted for presentation to the Queen. It affirmed that certain of the clergy had been engaged in the avowed purpose of undoing the work of the Reformation, and that mediæval doctrines and practices which have no place in the formularies of the Church had been introduced, and appealed to her Majesty to take steps to correct the evils complained of and prevent the reimposition of the sacerdotal yoke. (This memorial, signed by 3,900 Churchmen, of whom 31 were peers, 50 members of the House of Commons, 2,000 justices of the peace, and 1,300 clergy, was presented to the Queen on March 9.) A resolution adopted by the meeting declared that the persistent efforts widely made "to bring back into the Church of England doctrines and practices which had been deliberately rejected at the Reformation, and were identified with the Church of Rome, constitute grave danger, both to the country and to the Protestant reformed religion established by law." Another resolution suggested that should the bishops prove unable, by an exercise of the powers already intrusted to them, to remedy these evils, recourse should be had to further legislation. At a meeting of about 10,000 persons held in Albert Hall, London, under the auspices of the Church Association and about 50 other general and local Protestant societies, a demand was made for the application of the present laws to the suppression of lawless ritualism, and for new legislation to compel obedience to the law by removing the veto of the bishops and giving the laity free access to the courts of the realm. Notice was also taken of a book entitled *The Secret History of the Oxford Movement* as an offensive one, describing practices to which the attention of the Queen and Parliament should be given. At this meeting Lord Overtoun suggested that in the act of union England had pledged itself to Scotland to maintain forever the Protestant religion, and that Scotland would insist upon England fulfilling its part of the contract.

A conference of Churchmen was held April 28, the Bishop of Hereford presiding, for the purpose of forming a common basis of action between moderate High Churchmen, Broad Churchmen, and Evangelicals. Co-operation was pledged in maintaining by all lawful means the Protestant and comprehensive character of the Church, and in guarding "the great heritage of religious freedom and progress secured to the English people at the Reformation." The real presence believed in was declared to be purely spiritual, and no other to be recognized in the formularies of the Church. The doctrine of the ritualists was denounced as unscriptural and materialistic, and their ritual as hardly, if at all, distinguishable from the Roman mass. Opposition was pledged to the introduction of habitual confession to a priest and to the doctrine of the confes-

sion, and the bishops were appealed to to prevent clergymen from taking advantage of their positions to teach it, as well as to prohibit the reservation of the sacrament. The meeting expressed the opinion that the final determination of ecclesiastical cases should continue to rest with her Majesty in Privy Council, and declared opposition to the pretension put forth by some of the clergy that the law of the Church in spiritual matters is to be authoritatively interpreted by the clerical order alone. A representative committee was appointed to carry out the objects of this movement.

A resolution was adopted at the *conversazione* of the Church Association in May expressing astonishment and alarm at the failure of the archbishops and bishops to take action and at their inadequate treatment of the whole question.

A Ladies' League for the Defense of the Reformed Faith of the Church was formed in May. It saw the chief danger of the Church in the teachings rather than practices of ritualism, and, disclaiming all partisan or political views, purposed to approach the great questions at issue from the religious side and by educational means.

Letters of Sir William Harcourt.—An important feature in the controversy was the publication in the Times of London of a series of letters by Sir William Harcourt, dealing with the various aspects of the discussion, and giving prominence to legal points involved in it. In the first of these letters the writer criticised the proposal made by the archbishops to have disputed cases argued before them personally or by counsel as insufficient, because such a course would deal only with questions of rubric and not of doctrine; because the decisions of the archbishops would have no binding power; and because the cases, having to be carried there by the bishops, would probably never get before the archbishops. In a second letter he marked out a line of action to be taken in dealing with lawless clergy. His plan was first to ascertain the facts and to establish the real nature and extent of the operations of the "Catholic revival" by obtaining specific statements from each parish of what practices were in use which had been declared illegal by the courts or condemned by the bishops; by the establishment in each diocese of a regular organization for obtaining trustworthy reports on these, and then pressing these reports on the attention of the bishop, and demanding his action, or, in the alternative, liberty to proceed. The plan also contemplated that the diocesan organization should secure reports not only on the services in churches, but also on the publications circulated among congregations, and especially among children of the Church schools.

Claims of the Ritualists.—At a meeting connected with the anniversary festival of the English Church Union, Feb. 23, the Rev. T. O. Marshall, organizing secretary, spoke of the situation as being the case of the Church being governed by the man in the street—by public opinion—"but they could not submit to that." The Rev. G. Bayfield Roberts, vicar of Gloucester, said "they wanted it to be remembered that they were the Catholic Church of England, and if the assertion of that principle was dependent on bringing the bishops out of the House of Lords and bringing about disestablishment and disendowment, then in God's name let the bishops go out of the House of Lords; let disestablishment and what they called disendowment . . . come; but let them still hold true to the Church of Christ."

At a meeting attended by at least 220 incumbents, held at the Holborn Town Hall in January, with the object of which a large number of others expressed sympathy, the reservation of the sacrament for the *bona fide* purpose of communicating the sick and the dying and the ceremonial use of incense were declared to be laudable practices of the whole Catholic Church of Christ, both included in the directions contained in the ornaments rubric, the right to which could not and must not be abandoned.

The Manifesto of the Church Union.—A meeting of the English Church Union was held in London, Feb. 28, and was largely attended by men prominent in every sphere of life, all active Churchmen. Lord Halifax, president, addressing the meeting, spoke of the agitation as one which necessitated the united action of their union. What would be indifferent to them if it only touched themselves, he said, ceased to be indifferent when it touched the Church of England, and for the sake of the Church and for the sake of the truth it behooved them to make some such reply as their countrymen should understand. He denied that they were lawless in regard to the authority of the Church, and of the bishops administering Church law on Church principles, but admitted that they pleaded guilty of lawlessness in regard to the authority of the Privy Council and of courts subject to its jurisdiction when they interfered in spiritual matters. The following memorial was unanimously adopted:

"We, the clergy and laity of the English Church Union, have been publicly accused of lawlessness and disloyalty.

"We might have disregarded such accusations if they had been directed only against ourselves; we can not disregard them when we see them used to damage the Church of England, to the service of which we are pledged.

"It was open to the rulers of England in the sixteenth century to have thrown in their lot with the foreign Reformers, and to have established a new religious body in the place of the ancient English Church. They did not do so. With one voice they rejected all idea of separating themselves from the Catholic Church. They disclaimed all intention of dissociating themselves from 'the churches of Italy, France, Spain, and Germany,' except in such particular as these churches had themselves departed from primitive antiquity.

"They declared that nothing was to be taught except what could be collected from the Catholic fathers and ancient bishops. They justified their position by an appeal to Holy Scripture and primitive custom. In the sphere of government they claimed for the Crown only such power in respect to the Church as had always been claimed by the sovereigns of England—namely, to see legal justice administered in regard to all persons and causes, free from any foreign interference. In the sphere of doctrine and religious observance they rejected all changes which 'struck at any laudable custom of the whole Catholic Church of Christ.' The ordinal provided for the continuance and succession of the priesthood as it had hitherto been understood and received. Provision was made that 'the chancels should continue as in times past,' and the ancient vestments used by the clergy 'in all times of their ministrations' were enjoined.

"What have we said or done that is not in strictest harmony with these requirements?

"We have asserted, and we assert again, that the Church of England can not consistently with her principles release herself from the obligations

imposed upon her by her relation to the rest of the Catholic Church.

"We have maintained, and we shall continue to maintain, that the doctrine, discipline, and ceremonial of the Church of England, as they have at any time during the course of her history been prescribed by her, remain in force and operation except in such specific instances as they have been changed by her own authority.

"We have denied, and we deny again, that a new religious establishment was set up in England in the sixteenth century.

"We have denied, and we deny again, the right of the Crown or of Parliament to determine the doctrine, the discipline, and the ceremonial of the Church of England.

"We are content, if need be, to suffer for these things, and to suffer gladly. What we are not content to do is to sacrifice the rights and liberties of the Church of England to popular clamor and ignorant prejudice.

"If the nation, at a moment when the Church is doing more for souls, both at home and abroad, than at any previous time, is no longer prepared to recognize the Church of England on the lines which have always been hers, so it must be. We shall protest against the spoliation of the Church, but we are not prepared to barter the principles of the Church for the sake either of establishment or endowment.

"It is hateful to us even to seem to be in opposition to our bishops.

"We claim no right to introduce new ceremonies or novel doctrines at our own good pleasure, but we do claim that the rights of the Church of England shall be respected, and that matters which, in view of all the circumstances of the case, may rightly be subjects for regulation shall not be condemned on a principle of interpretation to which it is impossible we can assent.

"We can not admit, in view of the history of the Church of England, that any interpretation of the rubrics of the Book of Common Prayer can, be legitimate which relies on the principle that omission to prescribe is equivalent to prohibition to use. Neither can we admit that arguments founded on nonuser, however long and continuous, can be legitimately adduced as evidence of what the Church of England forbids or enjoins.

"A church which, prescribing a service for Ascension Day as full and as particular as that ordered for Christmas and Easter, has yet for long periods of time acquiesced in a general neglect of Ascension Day has no continuous tradition or practice which can be appealed to as evidence of what it enjoins or forbids.

"We insist that it is for those who assert that certain usages formerly prevailing in the Church are not covered by the ornaments rubric to prove that they are forbidden, not for those who uphold those usages to show that they are explicitly ordered.

"We submit that when the use of the English Prayer Book was first enjoined it was used by a clergy accustomed to the traditional way of performing the services of which the Prayer Book was for the most part a translation and adaptation. Such clergy would inevitably be guided in the use of the new service book by their practice under the old. What was legitimate then can not be illegitimate now.

"These are the principles which the members of the union have maintained in the past; they are the principles they will continue to maintain in the future. Relying upon them, we earnestly beseech the rulers of the Church not to use their

spiritual power to curtail the glory and the splendor of the services of God's house on earth by imposing on the Church a narrow and disputed interpretation of the rubrics.

"We no less earnestly entreat the rulers of the state not to incur the risk of certain disaster by encouraging any legislation which should aim at enforcing upon the Church in England the decisions of secular courts in spiritual matters."

Action of the House of Commons.—This manifesto of the Church Union was the subject of debate in the House of Commons, April 11, when Mr. Balfour spoke in condemnation of the position assumed by the ritualists. A resolution was passed by a vote on division of 200 to 14 deploring the spirit of lawlessness shown by certain members of the Church of England, and advising that clergymen, before obtaining preferment from the Crown, be required to promise obedience to the bishops and the Prayer Book, and also to "the law as declared by the courts which have jurisdiction in matters ecclesiastical."

Reply of the Church Association.—In a reply to the manifesto of the English Church Union, issued in March, the National Protestant Church Association set forth that the points in dispute were not for the most part matters concerning which there had been mere "omission to prescribe," but matters "which were carefully and deliberately rejected, after mature consideration, by the Church at the revision of the Prayer Book, and are further condemned in the articles and other formularies." And it concluded: "It is vain to imagine establishment without at the same time being subject to a certain degree of state control. Nor can the state, having conceded to the Church very great privileges, on the condition that certain doctrines were to be taught and a particular form of Church government maintained, permit the clergy to contravene those doctrines and repudiate the contract with the state, by which alone they are secured in their offices and emoluments. This is really the question at issue."

Positions of the Queen and the Prime Minister.—A statement was made in the *Leeds Mercury* in January, in connection with a visit made by the Bishop of Winchester to Sir William Harcourt, that her Majesty was much concerned about the dissensions in the Church, and strongly desired that before any legislation was attempted an understanding should be arrived at between the Government and the bishops, so that such changes as were considered necessary might be carried through with the least possible delay and friction. While she had always taken a deep interest in Church government and discipline, her Majesty was quite unaware until the present agitation of the extent to which the new doctrines and practices had been introduced into the national Church. She was distressed at the chaos revealed, and was prepared to do all in her power to restore peace to the Establishment.

While the controversy was at its height, April 29, Lord Salisbury wrote, in a letter expressing sympathy with the anxiety expressed by his correspondent, that "great dangers and evils are before us unless it shall be found possible to restore the discipline which has been so seriously impaired. The archbishops and bishops, with whom in this matter the primary responsibility lies, are doing their utmost to bring the Church back to a sound condition in this respect. Their efforts to effect this object and to restore a respect for the laws of the Church, which in some quarters has been forgotten, deserve the hearty support of all Churchmen."

Hearing before the Archbishops.—The archbishops announced, Jan. 20, in order, as they declared, to give more confidence to the clergy and laity that their views and opinions would be fully considered; that where doubt existed as to the interpretation of the law of the Church either archbishop would be prepared to hear cases arising within his own province argued by the party interested or by counsel. In order to guard against contradictory decisions in the two provinces, neither archbishop would pronounce his decision without consulting the other.

In accordance with this proposition the Archbishop of Canterbury, with the Archbishop of York as adessor, sat at Lambeth Palace, May 8 and the followings days, to hear cases that were submitted to him by the Bishops of Norwich and of London. The proceeding was of the nature of an informal reference, having no sanction of law, and it was not expected that the opinions, advice, or command of the primate would have the effect of a judicial decision. It was regarded rather as an informal effort to determine questions of ritual and to restrain irregularities without resorting to the secular courts, and the result was expected to have great influence as a disciplinary in distinction from a judicial pronouncement, coming from the highest ecclesiastical authority. Two cases were presented, involving questions of the use of incense and of processional lights. In the one case the Bishop of Norwich had prohibited the Rev. Edward Ram, of St. John's, Timber Hill, Norwich, and in the other the Bishop of London had prohibited the Rev. Henry Westall, of St. Cuthbert's, Philbeach Gardens. A printed brief of 173 pages had been prepared, common to the cases of both clergymen, full of historical and antiquarian matter. The cases were considered from the ecclesiastical point of view. The case of the Rev. Edward Ram was heard first.

A hearing in the second case, that of the Rev. H. Westall, of St. Cuthbert's, Philbeach Gardens, was held June 7 and the following days. The case involved the question of the legality or illegality of the use of lights—not of lighted candles upon the altar, but of lighted candles in candlesticks—or of tapers in processions or on the credence table, or elsewhere than on the altar.

The judgment of the archbishops in both cases was pronounced July 31. It began by setting forth that with reference to the two questions before them—the lawfulness of the liturgical use of incense and the lawfulness of carrying lights in procession—there was no direction in the Prayer Book either enjoining or authorizing either of these two practices. Nothing, however, could be clearer than the words used in the act of 1559 prohibiting the use of any ceremony not ordered in the Prayer Book. Specifically, as to incense, there was nothing to prevent its use for fumigating or sweetening purposes in the Church. But this had no bearing on the liturgical use. The conclusion on this point was, then, that "the use of incense in the public worship and as a part of worship is not at present enjoined nor permitted by the law of the Church of England, and it is our duty to request the clergy who so use it to discontinue that use." As to lights in processions, there was no authority for such processions, and they were therefore neither enjoined nor permitted. They might light up a Church to add to its beauty, but the ceremony of carrying lights about was of a different character. "And in this case, as in that of incense, we are obliged to request the clergy to

discontinue what the law of the Church of England does not permit. . . . In conclusion, we think it our duty to press not only on the clergy who have appeared before us, but also on all the clergy alike, to submit to episcopal authority in all such matters as these. All alike have consented to the Book of Common Prayer, and the Book of Common Prayer requires all persons, not only if they doubt, but if they find that others disagree with them concerning the meaning of the directions contained in the book, to resort to the bishop of the diocese, who may, if he thinks fit, send the question to the archbishop for his decision. In order to give the fullest opportunity to any who diversely take any question of this kind to give reasons for their opinion, we have suspended our decision until we had heard the matter fully and learnedly argued before us, and we have now given our opinion as the Prayer Book requires us to do. We entreat the clergy, for the sake of the peace of the Church, which we all so much desire, to accept our decision thus conscientiously given in the name of our common Master, the Supreme Head of the Church, the Lord whose commission we bear."

The bishops generally communicated the substance of the opinion of the archbishops to the clergy of their several dioceses, and advised those who used the practices aimed at in it to discontinue them. Among the bishops supposed to be in sympathy with the ritualists, the Bishop of Rochester, while he did not conceal his sympathy, pointed out in his epistle that "the only right and loyal course for the clergy and the congregations concerned is to obey, and to be forward to obey, the grave and deliberate ruling by the highest authorities in our Church, and the admonition or wish by which that ruling is accompanied. A considerable number of the ritualistic clergy made modifications in their services, indicating a respect for the letter of the advice given them by their bishops. A few refused to obey.

According to a statement made in the Record newspaper, there were at the time the opinion of the archbishops was pronounced 289 churches in English and Welsh dioceses where incense was used, and therefore vitally affected by the decision.

An expression made by Lord Halifax, president of the English Church Union, after the decision was made, deprecating it as "the greatest misfortune that has fallen on the Church since the rise of the Oxford movement," provoked much comment. Advice given by him to laymen to obey their immediate clergy whatever their decision may be was interpreted as meaning that clergymen who refused to obey their bishops should be supported in doing so. This led to the withdrawal of several members from the Church Union, among them Dean S. Reynolds Hale, of Rochester, a very popular and influential clergyman.

The Church Congress.—The thirty-ninth annual meeting of the Church Congress was held in London—this being the first time in its history that the body has assembled in the metropolis—beginning Oct. 10. The civic welcome was given in St. Paul's Cathedral, with a sermon by the Archbishop of Canterbury on The Failure to achieve the Unity of the Church. Other sermons were preached at Westminster Abbey by the Dean of Christ Church on The Kingdom of Christ, and in St. Mary Abbots, Kensington, by the Bishop of Peterborough, on The Presence of Christ with his People. The presidential address was delivered at Albert Hall by the Bishop of London, and had for its subject the question,

How can the Church best do its Work for the World? The first topic for stated discussion was The Church in London in this Century: Its Progress and its Needs, as bearing upon which the Archdeacon of London gave a review of the history and characteristics of The Diocese of London: The West and the City, and the Bishop of Stepney spoke of the Church in East London. The subject of The Church and the Laity: The Place and Work of the Laity in (a) Church Services and Parochial Organization, (b) the General Government of the Church, was spoken on by Mr. G. W. E. Russell and Mr. T. Cheney Garfitt on the first head, and the Dean of Norwich and Canon Gore on the second. The subject of The Church and her Services was discussed under the heads of The Principles of Ritual, The Question of maintaining a Type of Anglican Service, and the Limits of Possible Variations. In this discussion, after a paper on The Principles of Ritual, by the Rev. Principal Robertson, of King's College, London, Lord Halifax, President of the English Church Union, and one of the foremost representatives of the ritualistic party, made a presentation of their case as that of conscientious worshippers, asking for a generous and hearty indulgence in efforts to enrich the service of God with an appropriate ritual derived from the early Middle Ages (approximately the thirteenth century), when the art of ritual culminated and before it degenerated into overelaboration. He was followed, after a paper by the Venerable B. Cheetham, Archbishop of Gloucester, by an address on the opposite side by Prebendary Webb-Peploe, Secretary of the National Protestant Church Association, an equally prominent representative of the antiritualists, who took the position that whatever was foreign or repugnant to the national instincts should, so far as possible, be avoided, and that whatsoever accorded with or developed those instincts might be encouraged by those in authority, provided always that limits of charity, decorum, and general utility be observed; and applied this principle to the various aspects of the ritualistic question. On the subject of The Church and the Divisions of English Christianity—(a) the History of Non-conformity in this Century and its Influence on the Life and Work of the Church, and (b) the Possibilities of a Better Understanding in the Future, papers were read or addresses made by Prebendary Wace, Canon Overton, the Rev. W. H. Hutton, the Dean of Canterbury, the Archdeacon of London, the Dean of Ripon, the Rev. C. L. Engstrom, and the president.

Other subjects discussed were: The Evangelization of the World, Within the Empire and Beyond the Empire, The Church and Modern Society (including Speculation and Gambling, Certain Needful and Needless Sunday Employments, and Sunday Amusements), The Working Women in the Church, Purity and Temperance, Impoverishment of the Clergy and its Remedies, The Church and Education, The Church in Wales, Experimental Religion: Its Doctrinal Character and Foundation (a) as set forth in Holy Scripture and (b) as expressed in the Book of Common Prayer; and The Church and Social Questions—(a) Relations of Economic Knowledge to Christian Charity, (b) Conciliation to Labor Disputes, (c) Old-age Pensions, and (d) Housing of the Poor. An evening mass meeting of men was addressed by the Archbishop of Canterbury. The closing service of the conference was held in St. Paul's Cathedral, Oct. 13, when a sermon was preached by the Bishop of London. After the formal closing of the congress proper, affiliated

meetings were held, Oct. 14, for young people and for choirs and choral societies.

ANTI-WOMAN-SUFFRAGE MOVEMENT, THE. Theories advanced in the writings of Jean Jacques Rousseau gave the first inspiration to the idea of woman as a voter. He held that only the savage is free, and if there needs must be society the individual, not the family, is its unit. During the French Revolution Condorcet and Sieyès proposed that the ballot be given to woman, and their theories influenced Mary Wollstonecraft. Her *Vindication of the Rights of Woman* was at once admired and condemned. Sympathy with the Revolution took her to Paris, where she was deserted by her American lover. Freedom from the marriage tie was considered a necessary part of the scheme for equal rights, as it was thus proclaimed; but society opposed it and compelled Godwin to wed Mary Wollstonecraft and Shelley to wed her daughter. About 1820 Frances Wright, who is called "the pioneer woman in the cause of woman suffrage," came to the United States from Scotland. She lectured throughout the country, and established in New York city, in connection with Robert Dale Owen, a newspaper called *The Free Inquirer*. It was devoted to the promulgation of communism, materialism, and state socialism. She attacked state and church as the enemies of woman, and state and church took instant alarm. A party arose, calling itself "The Christian Party in Politics," to oppose her doctrines. In 1836 Ernestine L. Rose, an exiled Pole, came to this country to lecture. She was an extreme communist, and had presided in Europe over a body called "An Association of All Classes of All Nations, without Distinction of Sect, Sex, Party, Condition, or Color." She also was a pioneer advocate of woman suffrage, and opposition to her teachings was strongly felt and openly manifested.

In 1840 the Antislavery Association was broken up by the determined effort of a few radical women to be heard publicly in its councils. In that wing of the abolition party which established "communities," which held that all human government is sinful because it is founded on force, the woman-suffrage theory found lodgment and open advocacy. It attacked the home and the state, as well as the church, in the supposed cause of woman. The state and the home looked upon these radicals as sincere but misguided enemies, and the community life was frowned out of existence.

In 1848 a convention was called to meet in Seneca Falls, N. Y., to discuss "the social, civil, and religious condition and rights of woman," and the teachings of fifty years had culminated in the inauguration of a movement in which possession of the ballot by women was the main thing to be struggled for. Strong disapproval was expressed by women of the land who were foremost in education and philanthropy—by Catherine Sedgwick, Hannah F. Gould, Catherine Beecher, Sara Josepha Hale, Dorothea Dix, Harriet Beecher Stowe, Emma Willard, Lydia H. Sigourney, and Mary Lyon—but the first formulated protest against woman suffrage was sent to the Massachusetts Legislature, in 1860, by 200 women of Lancaster. They prayed the Legislature to refrain from forcing the vote upon women, because "it would diminish the purity, the dignity, and the moral influence of woman, and bring into the family circle a dangerous element of discord."

In 1868 and following years frequent protests were sent from women to the Illinois Legislature.

In 1870 a protest was sent to the Ohio Legisla-

ture from Oberlin College. Mrs. Henry O. Houghton, of Cambridge, Mass., for years conducted an organization that confined itself to issuing protests to the Legislature and to an occasional printed appeal. In 1871 a movement, largely inspired by Emma Willard, was inaugurated by Mrs. Dahlgren, widow of Admiral John A. Dahlgren. Associated with her as officers were Mrs. William T. Sherman and Mrs. Almira Lincoln Phelps. These ladies presented a protest to Congress, signed by 15,000 women, many of them notable, representing every walk in American life. The protest gave the following reasons:

"Because Holy Scripture inculcates a different, and for us higher, sphere apart from public life.

"Because as women we find a full measure of duties, cares, and responsibilities devolving upon us, and we are therefore unwilling to bear other and heavier burdens, and those unsuited to our physical organization.

"Because we hold that an extension of the suffrage would be adverse to the interests of the working women of the country, with whom we heartily sympathize.

"Because these changes must introduce a fruitful element of discord in the existing marriage relation, which would tend to the infinite detriment of children, and increase the already alarming prevalence of divorce throughout the land.

"Because no general law, affecting the condition of all women, should be framed to meet exceptional discontent."

These ladies conducted a journal of protest for several years. Individual States had thus made quiet resistance, but it was not until 1894 that organized effort to combat the suffrage movement was begun.

By that time the situation had become confused. Many of the claims of suffrage advocates had apparently blended themselves with the progress of a century that has been notable for women's advancement. First Mormonism, and then the rise of the Populist party, had carried constitutional suffrage for woman into three States of the Union. In May, 1894, the Constitutional Convention of New York met in Albany. The suffragists asked that an amendment, striking the word "male" from Article II, section 1, of the State Constitution, be submitted to the people at the next election. A woman in Brooklyn, in the midst of the cares of a young family, began to call the attention of her friends to what seemed to her a grave danger, and she stirred sentiment so deeply that a meeting was called and action was decided upon. New York women were also interested, and a committee of six were placed in charge of a petition of protest. In less than three weeks this was forwarded to the convention with 7,000 names appended, nearly 3,000 of which were wage-earners. The protest said:

"The signatures attached are those of women who have given serious and intelligent thought to the subject, and who have become convinced that the movement for unlimited suffrage, if successful, would undo much of the good which earnest effort and untiring philanthropy have achieved for their sex in the past twenty years. We have held no public meetings, have made no speeches, conducted no campaign, have made no effort to impress the convention by mere number of names. We have accepted the signatures of no men, of no women under twenty-one years of age, of no aliens or nonresidents of the State. The signatures are confined to no class, and represent only those women who are so seriously concerned at the mere possibility of what they consider a most alarming proposition that they have come for-

ward voluntarily to record their dissent. We respectfully submit that, notwithstanding the vigorous agitation of the question and the attempt by suffragists to arouse public opinion through the press and otherwise, there is among the women of this State a profound indifference on the subject, and that until a practically unanimous expression of opinion in its favor is given the convention will not be justified in considering the radical change demanded by a small number of women who regard themselves as the special advocates of the rights of their sex."

This statement was signed by Mrs. Francis M. Scott, Mrs. Clarence E. Beebe, Mrs. David H. Greer, Miss Eleanor G. Hewitt, Mrs. Arthur M. Dodge, Mrs. George White Field, Mrs. Richard Watson Gilder, and Miss Florence Lockwood. The convention decided not to submit the amendment.

In April, 1895, the Association Opposed to the Extension of the Suffrage to Women came into being in New York city. The reason therefor is set forth in its first annual report, which says:

"It is just two years since the energetic labors of the woman suffragists to induce the Constitutional Convention to pass favorably upon a suffrage amendment first roused the women of this State into active protest. When the deliberations of that body resulted in a decision to abide by the existing suffrage regulations the storm and stress of violent discussion which had wearied the minds and ears of the community was followed by a sudden quiet. The fact that a constitutional convention is held only every twenty years led to the mistaken statement, made in newspapers and elsewhere, that this vexed question of woman suffrage would not again be presented for legislative action for that period of time.

"In spite of the decision of the Constitutional Convention, the work of the woman suffragists upon the Legislature was begun early last year. Very little attention was paid to their quiet prosecution of their work, either by the general public or by those women who only a few months before had emphatically put themselves on record as against the false idea of progress indicated by the course of these same woman suffragists. It was not until the fact that the suffrage amendment, or concurrent resolution, as it is called, had passed the Assembly and reached the Judiciary Committee of the Senate, with every prospect of passing there, was brought to the attention of the original Executive Committee who had charge of the protest sent to the Constitutional Convention, that it was realized that our work was not finished, but only just begun. A meeting of the disbanded Executive Committee was hastily called, and it was determined to oppose the contemplated action of the Legislature. After advising with a member of the Senate Judiciary Committee, it was considered best to send one of our number to appear before them. This was in response to the statement that no woman had ever been heard in opposition to the proposed amendment in all the years it had been before the Legislature, leaving us to infer that the Legislators could not be blamed if they believed those who did appear when they asserted that they spoke for all intelligent and educated women.

"At the meeting of the original Executive Committee referred to the necessity of organization was appreciated, and the determination reached to form a permanent association to take charge of the work which again pressed upon us, and thereby to create a channel into which should

flow naturally that gathering flood of strong feeling, opinion, and judgment which demands that woman should be left free to develop along the lines indicated by Nature and its logic; free to exercise the qualities specially hers; free to supplement or lead the work of her brothers in all the ways from which Nature and its logic have shut them out.

"Twenty out of the 45 States have already written, asking information, expressing sympathy and encouragement. The interest aroused in our own State was so immediate and so great that it was found that some system of organization was necessary in order that our association should grow symmetrically. The simplest, and so the best, that was suggested was to take the already defined eight judicial districts of the State as a first form of division. Each one of these judicial districts is formed of a number of counties, excepting the First, which comprises only the city and county of New York. This plan was adopted. In each one of these districts a prominent city has been selected, and there the association formed is called an auxiliary, and is numbered according to its district. The other associations formed in cities and towns are called branches.

"We have subdivided this First Judicial District into a number of branches, eight of which have been successfully formed, and more are preparing to take up the work in the near future. The result of this general organization, which was begun in January, has been a great increase of interest and membership. On Jan. 1 we had 532 city members; we now number 1,406.

"This encouraging result makes it plain that when the women are reached quietly and systematically they are glad to record themselves on our side, and have heretofore only lacked the opportunity. In the nature of the case the women who feel with us are not an aggressive sisterhood. They are not clamoring for anything; their every instinct is against loud and public demands. But once approached, and the need of concerted action made plain, there has been generally found a willing, and sometimes an eager desire to give us the weight of their names and the encouragement of their sympathy. The interest, as expressed both by letters and interviews, is very great, and in an emergency there are large numbers of women who, while now preferring simply to register themselves as members of the general association, are ready to take up the active work necessary to defeat legislation should an emergency occur. This association has as a reason for its existence the determination to make such emergencies impossible. It is our desire never again to let it happen that a small proportion—a bare 10 per cent. by the largest claim the woman suffragists ever made—of the women of this State shall assume to speak for all, or even a majority. We believe, and might almost say we know, that this association is the voice of the majority of the intelligent and thinking women of this State, and as such is prepared to stand between the unwise, socialistic, and illogical demands of the woman suffragists and the unwise, hasty, and inexpedient action of the Legislature.

"During the year we have received 500 letters from 200 different people; we have sold 360 sets of pamphlets and given away 41 more, each set containing 9 different pamphlets; of single pamphlets, 5,412 have passed from the hands of our secretary into those of eager readers. Since our appearance before the Senate Judiciary Committee last spring this matter has finally begun to be recognized as not a joke or a bit of harmless

courtesy, but a grave social and political question (foreboding much and threatening more). Massachusetts has joined hands with us in offering encouragement and assistance to those other States where the desire is felt to arrest this retrogressive movement, and from all over the land come words of thanks, of help, of indorsement."

The following document, which was addressed to the Senators and Representatives of the Massachusetts Legislature of 1898, will show that the antisuffrage sentiment of that Commonwealth was organized about the same time with that of New York, and will explain their methods and indicate their progress:

"We the undersigned, members of the Executive Committee of the Massachusetts Association Opposed to the Further Extension of Suffrage to Women, beg leave to bring to your attention a brief statement of the work of this association, which has 18 branch committees, representing 146 cities and towns. The association was organized in May, 1895, after the passage of the Wellman bill. It took the ground that 'municipal suffrage would involve a danger to the State for which no compensating advantages were shown; that the present division of labor between the sexes was founded on the laws of Nature and reason, and it affirmed that a higher standard of public duty for both men and women must be brought about by advance in education and civilization, and would be impeded by the complications arising from municipal suffrage for women.'

"Acting on this belief, a standing committee of more than 100 representative women from Boston and other parts of the State was organized. This committee forms the basis of the association, and chooses annually an Executive Committee. From the Executive Committee as a center radiate the branch committees. Each branch committee forms a center for neighboring towns, and keeps in frequent correspondence with the Executive Committee. Our growth has been rapid, although our methods are quiet.

"We aim to give an opportunity to women who agree with us to express their convictions; to arouse an interest in the subject among those who have not considered it, or who, perplexed by statements and appeals from suffragists, which do not convince them, are in an undecided condition of mind. All are included in our membership—professional women, wage-earners, home-keeping wives, and mothers. We all have the same needs for good government, for higher standards of public life, and for a deeper recognition of the fact that 'the family remains the most sacred, durable, and potent of human institutions, and through it must be sought the replenishment and improvement of society.' By lectures and informal meetings, by the circulation of literature expressing our convictions, and by giving a constant and cordial support to whatever encourages the true progress and welfare of women, we try to do our part in the great educational movement of the day.

"We believe that it should not be thought solely women's work to study this question of suffrage, but that its serious consideration is a duty which men owe to their families and to the State.

"We gratefully acknowledge the support given by previous Legislatures to the claims represented by this association, and we earnestly request a continuance of careful consideration of the views of the opponents of the further extension of suffrage to women." [Signed by the Committee.]

The progress of the opposition movement can be best traced by quoting from the next annual

report of the Central Association, in New York, April 1, 1897:

"The appeals for help from the women of other States, who are just awakening to the fact that in order to defeat they must oppose woman suffrage in their own States, have been constant and earnest during the year. The most earnest demand for assistance has been from Illinois, and your Executive Committee has decided that an association in Chicago should be started immediately. If the suffrage question is gaining strength anywhere, it is in the West.

"The first important matter undertaken by this association during the summer was accomplished by the presence of Mrs. Crannell, of Albany, at the national conventions at St. Louis and Chicago, in opposition to the suffragists who were petitioning for suffrage planks in the platforms of the Republican and Democratic parties. Mrs. Crannell represented not only New York State, but Massachusetts and 14 other States.

"During the summer our secretary was busy with correspondence with people in various States, who, learning that New York had a large organization opposed to suffrage, desired information, pamphlets, and advice. The most important part of this correspondence came from California, the only State which during the year has sent the question of suffrage to the people. It was defeated at the November elections by a large majority—83,000 to 57,000—after a regular campaign organized and carried on by some of the best known suffragists, who stumped the State in every county, and brought every private and political influence to bear that they could command. The Legislature has since defeated, by a vote of 25 to 2, a bill to resubmit the question. The other States that have defeated woman suffrage during the year are Montana, by the Legislature, 41 to 27; Nevada, by the Senate, 9 to 5; Nebraska, by the Legislature, 56 to 36; Arizona, by the Assembly, 13 to 9; Oklahoma Territory, by the House, 13 to 11; Massachusetts, by the House, 86 to 53; Delaware, by the Legislature, 17 to 7; Maine, by the Judiciary Committee, unanimous against; Iowa and Missouri both defeated the question; Connecticut in both houses; Indiana, the question of the right of women to vote under the present Constitution taken to the Supreme Court and defeated; in Kansas, where women vote in municipal elections, the lower house killed the bill giving them the right to vote for presidential electors. Outside of our own country, in Nova Scotia, the House voted 23 to 5 against it; in England, the House of Commons 228 to 157; and in South Australia, where women are allowed to vote on most questions, the Federal Convention rejected, by a vote of 23 to 12, an amendment to allow women to vote for members of the House of Representatives. The suffragists have gained their point in Idaho by a vote of the State, 12,126 to 6,282. The question went to the Supreme Court on the ground that only one half the people voted, but the vote was upheld.

"Within our own State our work has progressed more slowly than we could have wished, owing to changes in the Executive Committee, the work done for other States, and the feeling that there was no need for anxiety this winter, owing to the avowed intention of the suffragists to do nothing here until next year. In May Auxiliary No. 4, Schenectady, was organized, and in February the sixth branch of the central organization.

"The Committee on Publications has had the more important pamphlets and leaflets bound in

volumes, and sent to 50 of the most prominent public libraries in the State, and has received a large number of letters expressing appreciation of the convenience of these volumes for reaching the general public. Our literature has received some valuable additions through the Albany auxiliary, the Massachusetts Association, and the Remonstrants of Illinois. A very large number of leaflets has been sold or distributed by the secretary, especially in other States.

"In January a petition was sent to the Legislature praying it not to strike the word 'male' out of Article II, section 1, of the Constitution, and a set of our pamphlets was sent to every member of the Senate and Assembly. On March 24 Mrs. Francis M. Scott, with several other members of the Executive Committee, appeared before the Judiciary Committee of the Senate to protest against the same change in the Constitution. Mrs. Scott's arguments were listened to with interest, and in spite of the large number of prominent suffragists who appeared in favor of their petition the bill to report the question to the Senate was 'killed in committee.' On April 14, when a number of us appeared, ready to speak for our side in a hearing appointed before the Judiciary Committee of the Assembly, we were informed that there was no need our being heard, as the bill had met the same fate in the Assembly committee that it had in that of the Senate. This, we think, is really a gain, for when we remember that two years ago both committees reported favorably, and that Senate and Assembly both voted in favor of the question going to the people, we have reason to think that our appearance, with a strong, earnest association behind us to oppose the submission of the question to the people, had influence with the committees."

In the annual report for 1898 work among wage-earners was reported which proved that, save in socialistic-labor circles, the working woman in New York does not desire the ballot. "Opposition to woman suffrage was organized in Iowa. Manhattan reported an enrollment of 2,000, Brooklyn of 900, while in the entire State the membership reached into the tens of thousands. No paper for signatures was circulated at meetings among working people or other assemblies gathered to hear our arguments." This report mentions that for 1899 Manhattan had distributed 13,544 pamphlets, Brooklyn 3,720, and Albany auxiliary 20,000. On Feb. 22 of that year a joint hearing was given the association before the Judiciary Committees of the Senate and Assembly. Before December, 1899, there were anti-suffrage associations (besides those mentioned) in South Dakota, Washington, California, and Oregon. Oregon has organized to protest against the passing of a suffrage amendment that is to be submitted to the people in June next. In their address to the voters the women say:

"We believe that only a small percentage of the women of our State ask for or desire the ballot. Our school elections prove, as do those of every State in the Union which permits women to vote at such elections, that the great majority of Oregon women do not use the ballot even in school matters, in which they may be presumed to take special interest on account of their children. We believe that the majority should rule in this as in other political matters, and that a small though eager minority of our sex should not force the ballot (and its attendant privileges of sitting on juries and running for offices) upon the far larger number of women who do not desire to vote. We have no quarrel with our suffragist sisters, but we protest against their being

regarded as representatives of the true opinion of Oregon women upon this vital subject. We also believe that the adoption of this suffrage amendment would necessarily lead to serious complications in both the political and social conditions of the State, and that such complications would be harmful to the State in every way."

In their address to the women they say: "The entrance of our sex into politics would not raise or purify politics; it would only lower women instead. Woman's influence and woman's sphere are larger now than she can fully use or fill. Our true career lies in developing and enjoying what we already possess, not in grasping restlessly for a vain shadow of power. The hand that rocks the cradle rules the world."

The main points of the antisuffrage argument are the following:

Recognition of a fundamental difference between men and women, which reveals the fact that their Maker has appointed them to different tasks of equal dignity and value. Recognition of the fact that the suffrage theory, carried to its natural, inevitable conclusion, would array woman against man, and that such a catastrophe could only end in destruction of every principle of human hope or progress. Recognition of the fact that woman suffrage is based on principles that are at war with a republican form of government, and would, if attempt were made to put the ballot into woman's hand to any serious extent, endanger the freedom whose first object is now the protection of woman. Recognition of the fact that woman's progress has been steadyest and most in accord with Christian civilization where she has not had the ballot and has least desired it. All these positions the women who are carrying on a steady, unassuming work of opposition say they are prepared to maintain by argument and illustration.

The secretary of the Central Association is Mrs. George Phillips, No. 445 West Twenty-first Street, New York.

The first published book opposed to woman suffrage was Horace Bushnell's *Woman Suffrage: The Reform Against Nature* (New York, 1869). A later and much more comprehensive treatise on the subject is Helen Kendrick Johnson's *Woman and the Republic* (New York, 1897). Pamphlets opposing the extension of suffrage to women have been written by Goldwin Smith, Francis Parkman, Abram S. Hewitt, Mrs. Schuyler Van Rensselaer, Francis M. Scott, Rossiter Johnson, Helena De Kay Gilder, Edward Drinker Cope, and others, and have been printed and circulated by the association.

ARCHÆOLOGY. *American.*—The American Archaeological Institute has been very efficient in encouraging exploration of antiquities in Italy and Greece, and has co-operated with the American schools at Rome and Athens, under whose direction much information has been systematically collected and verified respecting many of the ancient cities and their life and art. For the sake of drawing these three institutions into closer union meetings of their councils or executive committees have been arranged to be held at the same time, or together. Such meetings were held, May 11 to 13, at Columbia University. The Archaeological Institute adopted measures intended to revive interest in American archaeological exploration, which had been conducted with less vigor within a few years past than before.

Indian Remains on the North Pacific Coast.—Researches carried on by Harlan I. Smith in connection with the Jesup expedition

to the north Pacific coast of America were directed to the archæology of southern British Columbia and to the investigation of the shell heaps of the coast of Vancouver island and of the adjacent mainland. The Salishan Indians now living in the interior of British Columbia, particularly in the valleys of the Thompson and Fraser rivers, exhibit many traits that ally their culture with that of the tribes of the east and differentiate it from that of the coast people. None of the native peoples in British Columbia make pottery, and no pottery has been found in archæological work. The archæological remains occur in the light sand of the valleys and hill-sides, where the wind is continually shifting the dry sand from place to place. Hence no definite age can be assigned to the specimens secured. Judging from the complete absence of European objects in many of the localities explored, it is inferred that the remains found there antedate contact with the whites. Numerous circular depressions are found, indicating the sites of ancient underground houses. Bits of skin garments are preserved. Portions of the clothing and bags that were made of the bark of the sage brush remain in the driest places. Beaver-teeth dice like those used by the present Indians, digging-stick handles made of antlers similar to those in use to-day, charred berries, fish bones, and skin scrapers made of stone were unearthed. The graves were found in groups and also singly. The bodies were buried upon the side, with the knees drawn up to the chest, were wrapped in a fabric made of sage-brush bark, and were covered with mats of woven rushes. Over the forehead and around the neck were strings of beads, of copper, or of *Dentalium* shell. At the side, in a pouch also made of sage-brush bark, were usually found such objects as pieces of glassy basalt, points chipped out of the same material for arrows and knives, a pair of grooved stones, which were used for smoothing and straightening arrow shafts, a set of beaver-teeth dice, bone awls and needles, quantities of red ochre, copper-stained clay, and red earth, used for paint. A number of war clubs and several small animal figures carved in bone were found. The handles of the clubs were sculptured to represent human heads with plumed headdresses. Several specimens, such as the stone mortar and the tubular pipe, recall the types found in Oregon and California. Ethnological investigations have shown the affiliation of the recent culture of this region to that of the Rocky mountain region. These archæological evidences suggest to Mr. Smith that this similarity was even greater in the past.

The most extensive remains of the early inhabitants of the coast are shell heaps. Their general distribution may be judged by the fact that more than 150 were noted in the region, less than 100 miles square, on the shore of the north end of Vancouver island and the mainland opposite. In general they are located at the mouths of fresh-water streams, and are several hundred yards in length by 5 or 6 feet in depth, while a few are miles in length and some are as much as 9 feet deep. Stumps more than 5 feet in diameter standing on them indicate a considerable antiquity for the lower layers, but few of the layers being more than an inch or two in thickness. The archæological specimens found in them include points and barbs rubbed out of bone, bone choppers for preparing cedar bark, pebbles with battered ends, such as are used in a game resembling quoits, and a copper ornaments. The scarcity of archæological specimens is accounted for by the fact that the people de-

pended very largely upon cedar products, which soon decay. The shell heaps of the delta of the Fraser river, while in general resembling those of the coast, present several marked differences. Much more black soil, charcoal, and ashes occur among the layers. The shells are considerably more decayed and mixed with the black soil; numerous skeletons of two distinct types of men are found among the layers. The proportion of specimens to the extent of the shell heaps is vastly greater than in the other localities. A stump of Douglas fir more than 6 feet in diameter stood on one of the heaps where the layers, there reaching a depth of more than 8 feet, contained human remains. This tree indicates an age for the top layers of more than five hundred years, and the bottom layers must be very much older. There is no apparent difference in the character of the specimens found in the recent and in the older layers. The general style of the objects is similar to that of those made by the present tribes on the coast. The two types of skeletons belonged apparently to coexistent people, as they were excavated from the same layers. The fact that bodies were found in shell heaps indicates that the customs of this people must have differed from those of the people who formed the shell heaps on northern Vancouver island, or that the former people was subject to other influence. The bodies were usually lying on the side, with the knees close to the chest. Except in rare instances, but few, if any, objects accompanied them.

Cairns were observed, consisting of irregular piles of boulders, from 10 to 20 feet in diameter, thrown over the body. In most cases the body was surrounded by a rectangular vault, formed by placing the straight sides of four or five boulders toward the body, and covering the cyst thus made with one or two slab-shaped rocks. Over this the rough pile of the cairn was reared. A few copper ornaments were found buried in cairns. The skeletons were usually much decayed.

Relics of the Cliff Dwellers.—The discovery of extensive ruins of the cliff dwellers and prehistoric peoples scattered over considerable tracts in southern Colorado is reported by Mr. Cecil A. Doane, a deputy United States surveyor. They are situated in districts which have been little visited by scientific archæologists. In one place, west of the La Plata river, an area of about 6,000 or 7,000 acres were dotted with the ruins of the stone houses, most of them small (family houses), of a people who apparently lived by agriculture. Yet no evidences of irrigation were observed. Traces of similar former habitation were found in localities where the surface is now covered with a dense growth of sage brush and piñon or cedar trees, through which it is often difficult to make way. The ruined walls of what must have been a very large structure—massive and measuring 45 by 90 feet—were discovered in surveying a forest. Large piñon trees were growing within the walls. In another locality were found houses of cliff dwellers, built high up the rocks, and accessible now only by ropes, reaching down from the tops of the cliffs.

A number of well-preserved mummies found by a prospector in a sealed cliff dwelling in the upper Verde cañon had well-developed skulls, covered with fine, silky hair, and were bandaged with cotton and woolen cloths of various degrees of fineness, some of it embroidered in open work. The whole was wrapped in a matting of bear grass. Kernels of corn and bone implements were found with them. Small copper bells were dis-

covered in a cliff house on upper Salt river. Accounts of this whole region agree in representing the cliff dwellings and mounds representing the ruins of former buildings as occurring in very large numbers.

An Ancient Crown.—A part of a golden crown in the collection of Mr. E. J. Molera, of San Francisco, was taken from an ancient tomb near the Indian village of Tula. It was rescued from Indians, who were opening the tombs for the sake of the treasures they contained, after it had been broken into pieces and some of the pieces had been melted. When whole the crown was a plain circle of gold, beaten to a thickness of one eighth of an inch, two and a half inches broad, with a straight edge below, but rising in front with a domelike curve to a height of nearly five inches. The front and a part of one side are all of it that has been preserved, and this bears the stamp of Leopoldo Batres, inspector of monuments for the republic of Mexico. In the same grave from which this crown was taken a necklace and a lip stone were found. The lip stone is a crystal of remarkable brilliance and workmanship, and the necklace, composed of similar crystals, is also highly finished.

A City on a Hilltop.—In exploring a hill called Xochicalco, which rises between 300 and 400 feet above the surrounding plateau, about two days' horseback journey from Cuernabaca, Mexico, Prof. W. H. Holmes observed that the surface had been remodeled on all sides so as to present a succession of terraces faced with stone. The work was so constructed as to furnish approaches by series of staircases of stone. All the level places were marked by traces of ancient houses, with surrounding courts or plazas, within which large buildings had been erected. One of these buildings or temples was in a good state of preservation, and was situated within a plaza between 300 and 400 feet square. It rested upon a stone base between 60 and 70 feet square at the bottom and rising to about 20 feet in height, was capped by a heavy cornice standing out like a brim, and was adorned with elaborate sculptures. The hill was further marked with many subterranean chambers or caverns, some extending 150 feet back, of which those explored by the author were walled and plastered.

England. New Discoveries at Silchester.—The excavations at the Romano-British site of Silchester had been carried on systematically, at the time the report for 1898 was made, for nine years, and had resulted in the exploration of considerably more than half of the 100 acres within the walls. Operations in 1898, as described by Mr. W. H. St. John Hope before the Society of Antiquaries, had been confined to the southwest corner of the city, where an area of 8 acres had been dealt with. This area had been found to contain two *insulae*, which had been numbered XIX and XX, and a large triangular space south of them, which appeared to belong in part to *Insula XVIII*, excavated in 1897. *Insula XIX* presented the unique feature of being completely inclosed by walls. It contained a small house and two other minor buildings, as well as a well-planned house of the largest size, built round a courtyard, and having attached to it what seemed to be the remains of a tannery. The winter rooms of the house were warmed by a series of hypocausts. Beneath the courtyard were laid bare the traces of a still older house. *Insula XX* contained two small houses and a number of other buildings. The interest in the remains of the older house lying in the courtyard of the large house in *Insula XX* con-

sisted in the fact that they showed a building of half-timber construction. Such construction was not entirely unknown at Silchester, as indications of modern partitions in masonry-built houses had been detected, but entire buildings of this kind had not as yet been found on the site. The design of a finely enriched mosaic pavement in one of the chambers differed from the general run of Romano-British mosaics, in which variously disposed lines of braidwork form the most conspicuous portions. In this composition the noticeable features are delicate arabesques, resembling friezes found among the wall paintings of Pompeii, and a huge scroll of black leafage on a white ground, strongly resembling the leaf borders to be seen on Greek painted vases dated about 300 B.C.

This mosaic was shown at an exhibition of Silchester relics held at the rooms of the Society of Antiquaries, Burlington House, in May. Among the miscellaneous articles exhibited in connection with it were a mutilated amphora, without top or feet, found in the same house; a pot ornamented by the potter making indentations with his thumbs in the wet clay; pieces of plaster painted to imitate various kinds of marble; a quern, both the upper and lower stones of which were found *in situ*, and an upper quern stone still retaining its wooden handle; a pair of manacles or handcuffs, with a large lock; a well-preserved set of hooks, such as might be used for slinging barrels; a little scone to screw into the wall and hold a candle; a "hipposandal," the purpose of which is in doubt; ornaments; coins; and a brick or tile, upon which before it was baked some workman had scrawled with the tip of his finger the word "satis."

France. Caves of Brassemponty.—Among the finds of 1897 in the caves at Brassemponty, France, recorded by MM. Ed. Piette and J. de Laporterie were a horse's head engraved on a vertebra, a seal in *champlevé*, a young bovine animal raising its foot against an aurochs, two other equine figures, the head of a doe engraved in *champlevé* on a two-pointed instrument of reindeer horn, a number of bones with lines cut in them after the manner of runes, and bone arrowheads with simple linear characters. The authors remark that man had hardly been installed at Brassemponty under a relatively clement climate when he invented sculpture. The first deposits met with, at the base, in the alley, and in the largest part of the great gallery, contained human statuettes, and not a single animal figure. In this respect the discoveries differ materially from those at Mas d'Azil, which are attributed to the same period.

Rome. Relics of the Republic and Kingdom.—It was usual in the earlier excavations of the Forum to stop when the first remains of a pavement were met, without seeking further to find what more ancient remains might be beneath it. Discoveries of any great value regarding the early history of Rome could hardly have been expected under this method, because all the structures of the Forum and the Comitium, with the surrounding edifices, were seriously injured or completely destroyed by the fire of Carinus, A.D. 283, and were repaired and reconstructed under Diocletian and Maxentius. Excavations could, however, have been carried on deeper without destroying what might exist at the level by digging in the gaps and free spaces between the surface ruins. This plan has been adopted in the most recent explorations under the superintendence of Signor Boni, in which the object has been kept in view of reaching the early im-

perial, republican, kingly, or even prehistoric strata whenever it was possible to do so without injuring the later or higher structures; and some interesting discoveries have been made of ancient remains under and in front of the *pronaos* of the temple standing on the site of the very ancient statue of Saturn (which was erected after the great fire of Carinus) where the ruins of the three former structures have been found. A difference of level of 1.8 millimetre exists between the Comitium of the kings and that of the late empire. At the lower or older level were discovered a platform of tufa from the *lautumia* 3.64 millimetres wide, 2.66 millimetres deep, on which stood two oblong pedestals, which proved to be those of the lions mentioned by Varro and Dionysius; a conical pedestal, also of tufa, 0.77 millimetre in diameter, standing on a slightly curved plinth, on the west side of the platform; an inscribed *stela*, slightly pyramidal in shape, measuring 0.47 millimetre by 0.57 millimetre at the base, and irregularly broken about the middle of its original height; and a tufa platform, which may possibly represent the original rostra. These four relics are all differently ornamented, and have all been purposely injured and broken by the violence of man. The deed of destruction was afterward expiated by a sacrifice, the remains and traces of which form a layer of votive offerings about half a metre in thickness.

In digging through the rude pavement and the embankment of rubbish beneath it on the line separating the Comitium from the Forum, Cavaliere Boni came upon an inclosure about 12 feet long and 9 feet wide, screened by a marble parapet on three sides, and paved with slabs of black Tenarian marble. This inclosure with its pavement is believed to be one of the structures restored by Diocletian and Maxentius, and therefore to have been considered by them important to preserve. An association is suggested of it with a passage in Festus, reading, "Niger lapis in Comitio locum funestum significat." The same author says that the spot had been selected for the burial of Romulus, the founder of the city, but, as the hero had been bodily carried up to heaven by his father, Mars, the funeral plot had been given up to Faustulus "nutricius suus." Dionysius asserts (I, 87) that near the rostra, but within the area of the Comitium, a stone lion of archaic workmanship was supposed to mark the site of the grave of Faustulus. Varro speaks of two stone lions guarding, as it were, the grave of Romulus in the same corner of the Comitium. The remains of the pedestals of both of these lions have been found. These discoveries are regarded by M. Rudolfo Lanciani as "showing how wrong we have been in disbelieving every particular of Roman traditional history previous to the Punic wars, and the inscriptions on the monuments associated with them, comprising the oldest written documents of Roman history, as the most important ever found in Rome." The inscription on the *stela* has been studied by Signor G. F. Gamurrini, who finds that it was cut in the very early style, called *βοστροπήδον*, in which the lines run alternately backward and forward, from right to left and from left to right, or, as the etymology of the word indicates, like the turning of the oxen in plowing. This style of writing was given up by the Greeks before the end of the sixth century B.C. The lines in the present inscription, however, are perpendicular instead of being horizontal. They cover the four principal faces of the stone, with an extra line on one of the flattened corners. Unfortunately,

the top of the stone is broken, so as to make every line incomplete alternately at the beginning and the end. The characters in which the inscription is cut are those of the earliest italic derivation from the Chalcidian alphabet. Another evidence of its great antiquity is given by the three vertical dots by which the words are separated. This peculiar style of interpunctuation is to be found only in inscriptions (Attica, Laconia, Elis, Argos, Etruria) dating from the end of the seventh and the beginning of the sixth centuries B.C. The *stela*, Prof. Lanciani says, shows how exact the early Roman annalists and historians were when they speak of "leges Regiæ" and public treaties engraved on stone in a language that could not be understood. All these documents were supposed to have been lost in the Gaulish fire, and this is the only one known that partially escaped destruction then. Prof. Luigi Ceci, of the University of Rome, reads the inscription and supplies the missing words as follows:

1. QUOI HO[r]das ueigead, ueigetod s]AKROS [s]ESED.
2. SOR[das, sakros sed].
3. [eid]IASIAS REGEI LO[iba adferad ad rem d]EVAM.
4. QUOS R[ex per mentore]M KALATOREM HAP[ead endo ada]GIOD, IOUX MENTA CAPIAD, DOTA V[oread].
5. [Int]M ITE RI K[oised nounastias i]M.
6. QUOI HAVELOD NEQU[am stied dolod mal]OD, DIOVE ESTOD. [qu]OI VOVIOD [sacer Diove estod].

His Latin translation is:

1. Qui fordas consecret, consecrato sacellum ver-sus [or, ad sacellum].
2. Sordas [viz., qui sordas consecret, consecrato] seorsum a sacello.
3. Idivbus regi liba adferat ad rem divinam [viz., ad sacrificium].
4. Quos Rex per augurem Kalatorem induhpeat [viz., consecratum admittat] adagio [viz., carmine] precibus auspicia capiat, dona votiva voveat.
5. Itemque rei [divinæ] curet Nonis ibi.
6. Qui auspicio nequam sit dolo malo, Iovi esto. Qui voto [viz., nequam sit dolo malo] sacer Iovi esto.

Prof. Lanciani remarks as the most salient linguistic specialty of this document "the great number of words—great in comparison to the total—that do not appear in the Latin language." Its date is assigned by him to about the middle of the sixth century B.C. It is therefore one century older than the Prænestine fibula of Manios (Corpus Inscriptionum XIV, 4123), and two centuries older than the vase of Duenos. Prof. Ceci observes, in communicating his version of the inscription to the Italian Minister of Public Instruction, that while he will not say that the discovery of the *stela* marks the downfall of the modern hypercritical school, especially German, "one thing is certain, it will shake the faith of the many who believed blindly in the word of Niebuhr and Ihne, and will revive the hopes of the few who trusted to the authority of Livy, and had faith in the historical foundation of early Roman traditions."

Explorations were also made in the Basilicas Æmilia and Regia, and along the Sacra Via.

Greece. New Law concerning Antiquities.—It having been found that the recognition of the landowner's right of property in archaeological finds implied in the old law opened the way for abuse, and that extensive thieving was

practiced under it, the Government of Greece has enacted a new law, which differs from the old one chiefly in that all objects of antiquity are declared to be exclusively the property of the state. Compensation is, however, provided for the owner of the land on which the object is found equivalent to one half of its value as determined by a committee of three persons, in which both parties are represented. Notice of all finds must be given to the ephor general within five days, under penalty of forfeiture of the compensation and a liability to fine and imprisonment. The new law further provides for a process of condemnation of property on which excavations are authorized by the state, and, in a second statute, for the organization of a graded archaeological service under the direction of the Minister of Education.

The Agora of Corinth.—Excavations at Corinth were begun in 1896, under the auspices of the American school at Athens, by Mr. Rufus B. Richardson, and resulted in the discovery of the theater. They were then suspended, on account of the war between Greece and Turkey, but were resumed in 1898, when the famous fountain of Pirene was found, with the architecture of its two-story façade almost intact, except for the loss of its marble front. Other results of the excavations of 1898 were the recovery of the synagogue in which St. Paul preached, and of a broad marble staircase leading from a broad pavement at the foot up the valley lengthwise, 30 steps of which were laid bare. The work was resumed in 1899, when at the top of this staircase were found the foundations of the propylæa mentioned by Pausanias, through which the street to the harbor of Lechæon led from the agora, occupying a position of the magnificence of which the mention by Pausanias gives no idea. Other results of the explorations of 1899 were the identification of the Temple of Apollo and the discovery of the fountain of Glauke. By the aid of these discoveries and of the descriptions given by Pausanias the identification of other points in the city will become comparatively easy.

Antiquities of Melos and Crete.—The annual report of the (British) Hellenic Society, June 29, mentioned important excavations in the island of Melos, with some research at Naucratis, as having constituted the principal work of the society for the year. Prof. Jebb, chairman of the meeting, spoke of the explorations that had been made, now for the third season, on the site of a prehistoric city near the village of Phylákopi, in the northwest of Melos, representing the earliest capital of the island, and said that the prehistoric deposit found there belonged to the interval between the earliest culture traceable on Greek soil and the later Mycenaean age. The earliest pottery found there was primitive unpainted ware, hand made and hand polished, such as was found in the earliest cyst tombs of the Cyclades. Next in age to this came a series of vase fragments with painted geometric designs; and to this again succeeded in chronological order a series of fragments known as "Therean"—that is, belonging to the class found in the island of Thera (Santorin). The work of these three periods was, of course, all pre-Mycenaean. A circumstance of peculiar interest in connection with these excavations was the discovery that the ancient town at Phylákopi must have been a prehistoric center for the manufacture and export of implements made of obsidian—a mineral which occurred in this island, and seemingly nowhere else in the Levant, in a peculiar highly vitreous state. An appeal was made for

the support of excavations in Crete, where, by an understanding with the High Commissioner of the powers, certain sites of historical importance and representative character had been reserved for British exploration. One of these was Cnosos, the city of Minos and Dedalos, the center of the ancient sea power and the earliest home of Cretan art, where a promising mound was awaiting examination. Another site was Præsos, a seat of Cretan life at a very remote period, where an archaic inscription had been discovered in a dialect the key to which had yet to be found. A third site was Lyttos, where fragments of ancient laws had been unearthed in the acropolis; and another was the cave of Psychro, on Mount Dikte, the legendary birthplace of Zeus. The great interest of prehistoric Crete consisted in its character as the first Aegean station of the earliest civilization which passed westward from Egypt. Among the results of recent research to which Crete bore witness was the existence of a system of sign writing older than the use of the Phœnician alphabet, and pointing to an intercourse with Egypt which might date from 3,000 or possibly 4,000 years B. C.

Archæological Interest in Crete.—As soon as tranquillity was restored to Crete and a European government was organized for the island the people began to show interest in its archæology by founding local museums, and an active society was formed at Heracleum for the conservation of Cretan treasures of antiquity. The Government published a decree June 21 (July 3, new style), signed by Prince George, for the protection of all remains of the past from the earliest times to the Venetian conquest, as well as of later works of historical or artistic value. The law provides compensation over and above the archæological value of the discovery to private owners, but not to communities, monasteries, and scientific bodies. It requires that the discovery of immovable antiquities be at once reported to the authorities, and that the finder leave his discovery untouched for two months after the day of giving notice, while the authorities may decide upon its disposition. Every disturbance, damage, or alteration of ancient monuments without special permission is forbidden, as also is the carrying of stones or other material from ancient ruins. Every find of movable antiquities upon his own property must be reported by the discoverer within five days, and he is given one third of its value in each case, while the finder of such articles on another man's ground shares the remuneration with the owner thereof. The right of eminent domain may be exercised when necessary, and the Government will pay indemnities for damages to property. The results of excavations belong to the Government, and will be placed in public museums, of which two have been established. The trade in antiquities is permitted only within the island, and is confined to objects that are unsuitable for the museums, those discovered before the publication of the law, and those that have been brought from abroad, after they have been duly reported and catalogued.

Temple of Æsculapius at Paros.—The excavators of the German archæological school at Athens working in the island of Paros have uncovered the celebrated Temple of Æsculapius which is described by several Greek authors. It had been pillaged, and no objects of art were found in it. Not far from the temple a fountain was discovered, which dates from the fifth or sixth century B. C., and near this the vestiges of very ancient walls.

Winners of Olympic Games.—Among the papyri recovered from Behneseh, Egypt, and deciphered by Messrs. Grenfell and Hunt, is one giving a list of the winners in all the 13 events which formed the Olympian games for a series of about seven years. It is the first record that has been found of all the events of even a single Olympiad. It covers a part of the time when Pindar and Bacchylides were composing odes, yet extant, in honor of the Olympian victors, and affords upon independent testimony, accurate dates for these famous compositions. It further throws light upon the history of Greek plastic art of the period by fixing the year of a victory, and consequently of the sculptor whose work commemorated it. Thus Polycleitus is shown to have been living in the middle of the fifth century B. C., and to have flourished only a little later than Phidias, while the sculptor Pythagoras can be shown to have continued his work down to about the same period in that century.

Palestine. Presumed Site of Gath.—At Tell-es-Saffi, the supposed site of ancient Gath, the boundary wall of the former city has been discovered in the excavations of Dr. Bliss and Mr. Macalister by tracing a massive rampart that inclosed it. The walls were 12 feet thick, and rose in some places to the height of 33 feet. Shafts have been sunk within the area, and have revealed four strata of *débris*—two pre-Israelite strata, a stratum coinciding with Jewish times, and a stratum of the age of the crusades. The testimony of the pottery would make it appear that the place has had a continuous history from the eighteenth century B. C. to the fourth century B. C., that it was founded long before the conquest of the land by Joshua, and was inhabited continuously till a late Jewish period, when it was deserted till the time of the crusaders. The tablets or *stelæ* have not, however, yet been found which would definitely identify Tell-es-Saffi with Gath. "Our excavations," says Dr. Bliss, "have proved the existence of a city quite as ancient as Gath on a site where Gath may reasonably be looked for, fortified at about a period when Gath was made a city of defense." The explorers have also been working at the neighboring site of Tell Zakariya, which has been identified with the Azekah of Scripture, where the remains of a large fortress have been found.

A Canaanitish "High Place."—The report of the excavation at Tel-es-San by Dr. Bliss, published in the quarterly journal of the Palestine Exploration Fund, relates the discovery of a structure which is supposed to be the remains of a Canaanitish temple, or one of the "high places" mentioned in the Bible. Three upright monoliths are supposed to represent the pillars spoken of in the Scripture.

Persia. Ruins of Apadana.—Prof. J. De Morgan, digging beneath the excavations made by M. Dieulafoy in 1885 on the site of the Apadana of Darius and Artaxerxes at Susa, has found inscriptions and monuments of the Anzanite period which seem to throw light on Assurbanipal's account of having taken Susa and destroyed it. Many of the monuments bore traces of fire, which the explorer referred to Assurbanipal's conflagration. A large *stela*, 6½ feet high and 40 inches wide at the base, bore three representations of the sun at the top. Below these stands the king, wearing his helmet and having a bow in his left hand and an arrow in his right, dressed in Assyrian costume, treading enemies under his feet, and having a wounded enemy (a supplicant) and dead around him. Soldiers

led by three standard bearers are pursuing the enemy, some of whom have turned toward them, beneath three trees, with a supplicating air. The scene is in the mountains. An abrupt cliff which the king and his pursuing force have reached bears a long inscription. The whole has suffered much from fire. The composition and its details are well spoken of as works of art. A bronze table or altar discovered in the same trench—an irregular slab about 5½ feet long, 2 feet wide, and 10 inches thick—was borne by four human figures at one end, while the other end was mortised into the wall, was pierced by four holes at the sides, and had a border of two enormous serpents. Only the upper parts of the bodies of the human figures remain, the heads and lower parts being gone; the arms were slightly extended from the body, and crossed over the abdomen. All projecting parts of the monument had been broken off, and the marks of hammers were visible. A granite obelisk was found, covered on all four of its sides with an inscription deeply cut into the stone, consisting of 25 horizontal lines, divided into more than 1,500 small columns, and containing almost 10,000 characters. It is the longest inscription ever discovered in Mesopotamia, and is almost complete. A white stone, roughly hewn, had four faces bearing pictures and inscriptions; at the top a coiled serpent, with two panels beneath it running round the block, and containing, the upper one two suns, the moon, two houses with conical roofs, and a scorpion; the lower one, some fantastic animals and squares interlapping. The lower part of this stone had once contained 23 lines of inscriptions, a part of which had been rubbed out by the use of the stone for sharpening tools. Another similar stone, but black, has a coiled serpent at the top, with pictures and inscriptions on the four faces below it: a star, moon, and sun, below which is a seated figure, supposed to be the king, with hands raised in adoration of a scorpion in front of him; a lion lies at his feet, under which are five lines of inscriptions. The second face of this stone is divided into five panels, containing a square building with conical roof, four standards or religious emblems, and a hawk perched next to a bull. The other two sides are filled with inscriptions. The inscriptions are being studied by Père Schell.

Egypt. Fall of Columns in the Temple of Karnak.—On Oct. 9 a number of columns (making 11 columns in all) in the fourth and fifth rows north of the axis of the Temple of Karnak fell, in consequence, it is supposed, of a slight shock of earthquake. They all fell in a straight line, from east to west. The columns can be set up again, but the architraves above them are utterly broken and destroyed. The work of repairing and strengthening the ruins of the temple has been going on for three years, under the direction of M. Segrain. None of the columns that had been repaired were injured.

Tomb of Dhuti.—In the excavations prosecuted in January, 1899, by Dr. W. Spiegelberg, of Strasburg, in the necropolis of Drah-Abul-Neggah, many tombs were found, but, they having all been plundered in early times, only the less valuable things remained. Yet many objects were found of importance for archæology. Dr. Spiegelberg believes that the tombs belong to the obscure period—of which we have very few monuments—between the thirteenth and seventeenth dynasties. With this fact in view, Prof. W. Max Müller says, in the Independent of New York: "Even the discovery of numerous crude '*ushebti*'—figures of wood with the well-known

chapter of the Book of the Dead written on them with ink—is of importance. Many of these figures were 'inclosed in a small sarcophagus of earthenware. Once such a sarcophagus had a small imitation of a tomb over itself, made from a few bricks. Four conic vessels stood at the corners of the sarcophagus. The theory that these figures did not represent slaves of the dead (as, indeed, did different statuettes of the earlier periods), but were proxies of the deceased which were expected to take his place when Osiris called him to the daily work in the heavenly fields, finds by the new observations a brilliant confirmation. This becomes the plainer if we consider that many of these proxies were wrapped in linen bandages, exactly like mummies." The time when these pits were plundered seems to be near the end of the Thebaic kingdom, when, Dr. Spiegelberg thinks, a general clearing up of the old tombs for reuse was going on. Some of the old pits were used as collective burial places for ibises and other sacred birds. One of the tombs, which had suffered this fate, belonged to a certain Here, the inspector of granaries of Queen Aahhotep, of the beginning of the eighteenth dynasty. Near this was a tomb belonging to the chief of the silver and gold house, Dhuti. Of two *stelæ* standing in the court at the entrance to the tomb, one contained a hymn addressed to Amon Re, while the other contained in 42 lines an account of the official acts of the deceased—among other facts, that he was appointed to superintend the manufacture of works in precious metals under the reigns of Queen Hatasu and King Thothmes III. Apposite to this is the collection of magnificent gold and silver plates of curious style preserved in the Louvre, and bearing the same name of Dhuti. Dhuti, too, is described in a tale in a papyrus in London as the hero who took by surprise the hostile city of Yapu, or Jaffa, in Palestine. He also claims to have registered the spoils brought back by the expedition which Queen Hatasu sent to the incense country of Punt, on the Red Sea. Seeking more light on this passage, Dr. Spiegelberg, Mr. Percy Newberry, and Mr. Howard Carter together examined anew the pictures relating to the expedition in the temple of Hatasu at Deir-el-Bahari, and found in the section representing the piling up of the products traces of a figure, before unperceived, of a man making entries, over which was the name of Dhuti, half obliterated, an effort having evidently been made to scratch out this part of the scene. Hence it is inferred that Dhuti eventually fell into disfavor.

Predynastic Relics.—In a paper read to the Society of Antiquaries, June 15, Mr. F. G. Hilton Price, director, described a number of very ancient antiquities in his collection which had come from Negada, Abydos, Gebelen, and other archaic sites. Many of these objects had been known to Egyptologists for several years, but it was not until systematic excavations had been carried on by Prof. Flinders Petrie at Negada and Ballas, in 1894-'95, that their period could be ascertained. It has been found that they belong to a predynastic people, who lived in the Nile valley previous to or about the time of the first dynasty. Among these objects were a remarkably fine and perfect amulet, made out of the end of the tusk of an elephant, having a human head of Asiatic type, with pointed beard, carved out on the point; an amulet made of a thin, flat piece of gold, apparently representing the former done in the flat instead of the round; a wand or baton in ivory, shaped like a boomerang, and engraved with fantastic figures; cone-shaped stone disks,

hitherto supposed to be mace heads, but which might be whorls or guards for the hand fire drill; and palettes of slate, which the author agreed with Prof. Petrie in considering had been largely used for grinding malachite or hematite for face paint, in some of which traces of the colors remained. These palettes might possibly have been employed primarily as amulets. Other objects described were bangles in shell, articles in bone, called "manikins," spoons, beads, a small stone lion, pots or vases of diorite, and other ornamental stones; pottery, of which specimens are mentioned of the red ware with black tops and of the decorative class; and a series of finely chipped implements in cherty flint.

Relics of the Earlier Dynasties.—An exhibition made by Prof. W. M. Flinders Petrie at University College, London, in July, included some of the results obtained by Prof. Petrie and his company during the previous season for the Egypt Exploration Fund and a prehistoric collection lent by Mr. Randolph Berens. The work of the Exploration Fund had been on cemeteries of various early periods, and in part at Deir-el-Bahari. The principal discovery of the year was that of the Libyan settlements in Egypt at the close of the middle kingdom, about 2400 B.C. The graves of these people are shallow, circular pits, about 2 feet deep and 4 feet across, which the excavators called from their form pan graves, and into which the bodies were placed in a contracted position, as in the prehistoric graves, but not all in the same direction. The pottery was like that of the twelfth dynasty and later, and all the Egyptian pottery, kohl pots, and beads found with these burials are of corresponding age. From this circumstance it becomes possible to fix approximately the period of the Libyan invasion. A peculiar feature illustrated in the exhibition is the burial of skulls of domestic animals. The backs of these skulls are cut away, so that they can be hung up, like the Greek *ducrania*. The facial bones are decorated with spots and lines of red paint, put on with the finger—a custom which belongs also to the prehistoric Egyptians, who are supposed to have been mainly Libyans. From the prehistoric period—still unrelated—were shown flint knives, forked lance heads, ivory knobs, clay toys and models, pottery, stone vases, beads, and other objects. The collection also included—of later periods—stone vases and kohl pots of alabaster, basalt, serpentine, and blue marble; statuettes of a lady Tasegt, a man Ransent, and a youth whose name is lost; and several bronze weapons. A dagger is shown in photograph—the original having been detained in Cairo—with ivory handle and silver rosettes, inscribed with the name of King Snazentra, of the fourteenth dynasty. Articles of pottery of the thirteenth to the seventeenth dynasties furnish a set of forms intermediate between those of the middle kingdom and of the empire, which completes, Mr. Petrie says, "our view of Egyptian pottery, which we now know from prehistoric times down to the nineteenth dynasty." The loan collection contains some of the finest specimens known of the stone vases made in the best period of the prehistoric age, among them three large vases of shelly breccia; another of diorite, of later prehistoric time; an alabaster cup with seven spouts, assigned to the third or fourth dynasty; and a number of prehistoric flints from both the high desert plateau and the lower level near the Nile, from which the inference is drawn that Palæolithic man continued in Egypt until the Nile was as low as its present level.

Summary of Results.—Of the latest results of the explorations of the ancient tombs Mr. Petrie said, in his report to the Egypt Exploration Fund at its annual meeting, Nov. 10, after describing a system he had adopted of classifying and dating the relics found: "Thus we have a system just as convenient as a scale of years, and every kind of object can be relatively dated in it. From the order of the graves as found by the pottery, I have obtained the history of the development of stone vases, ivories, and the working of flint and metal, for even the earliest of these tombs contain copper. And having done that, a new piece of history becomes apparent in the great change that passed over every kind of work at one point of the scale about a quarter through the prehistoric age that we are studying. A new tribe seems to have come in with very different notions. One of the most curious differences is that the older people largely used signs, which are the forerunners of the Mediterranean alphabets, while the later people ignored such signs. The earlier people used no amulets; the later used amulets, several of which came down to the historic times. The use of a forehead pendant and face veil seems also to belong only to the later people. The characteristic pottery of the earlier people is closely like the Kabyle pottery of the present; the later people had some pottery almost identical with that of south Palestine in historic times. All these indications point to the earlier being a Libyan population, overlaid later on by an eastern migration. These results we have only reached in the last few weeks. I hope now it is clear what a great step we have made historically in the mode of reducing the prehistoric chaos into orderly sequence, and in tracing changes in the civilization of such ages. . . . In other lines we have also reaped a good harvest. The cemeteries of the sixth to the twelfth dynasties have given us the history of alabaster vases and of heads. The cemeteries of the thirteenth to the seventeenth dynasties have shown the development of pottery, as yet unknown, and splendid dated examples of fourteenth dynasty copper work, which fix the forms of daggers and axes. An entirely fresh invasion of Egypt by Libyans at the close of the twelfth dynasty has been traced; several kinds of subjects known before, but without dates, have taken their historical position, and we have a sample of the civilization of the Libyan tribes at about 2000 B. C. And coming down to Roman times, we have found the continuance of a longer and fuller alphabet of Asia Minor in an inscription scratched by a Roman legionary at the camp of Diospolis."

Africa. Prehistoric Tombs of Carthage.—The excavations of M. Gauckler at Carthage have been carried on in a tract near the cisterns of Bordj Djedid, between the great trench where Vernay first discovered Carthaginian tombs in 1885 and the Punic necropolis of Douimès, which was successfully explored by Père Delatre. This district is one of the most important in Carthage, containing as it does traces of former civilizations in successive strata to the depth of 7 or 8 metres. In the superficial explorations relics brought to the surface by the plow were observed, consisting of tiles, lamps, coins, articles of pottery, etc. At the depth of a metre and a half Byzantine tombs were found with rude mosaics. Beneath these were various constructions of the corresponding epoch, among others a Roman house apparently of the period of Constantine, together with remains of a more ancient epoch, notably a colossal head of Marcus Aurelius in

white marble. This house of Constantine's time is very interesting. In the center was a fountain; farther on were two rooms paved with mosaics, one representing a seashore scene, comprising a pavilion with towers, persons fishing or boating, and mythological scenes in the lower part. Another mosaic is less important, representing a hunt of wild animals, and apparently, from the style and design, not older than the fourth century A. D. Still another mosaic is marked by pagan traits, and is therefore probably more ancient. A narrow passage was discovered, with steps, descending which a chamber was found, the floor of which was covered with fragments of painted and molded plaster. The apartment had been divided by a wall, on the other side of which the *débris* was of a different character, and consisted of lamps in the Christian designs of the fish, the palm, and the cross, and fragments of pillars and plaster painted in bright colors, of a style quite Pompeian. One of these fragments represents a young woman or priestess dressed in white, with a lotus flower over her forehead, holding a staff terminating in a cross. Other figures in marble were of pagan divinities, bearing ancient fractures and signs of deterioration, indicating that they had suffered at the hands of iconoclasts. Among them were a pudic Venus on a dolphin, a Jupiter seated with his eagle, a Bacchus giving a drink to a panther, a young man seated dressed in the *chlamys*, a mask of Silenus, a lion's-head waterspout, two statues of Mithra in terra cotta (one of which was trampling on the head of a bull), articles of pottery, the lower part of a statuette with the bust of the Carthaginian horse, a mask of a goddess wearing a diadem, and a portrait of a woman. In a far corner of the chamber,

BULL, DEDICATED TO SATURN, FOUND IN THE SANCTUARY OF JUPITER AMMON, GRAYISH-WHITE MARBLE, 0.85 MILLIMETRES IN HEIGHT.

against the wall, was a white marble slab, bearing a dedication to Jupiter Ammon, who was identified with the god Sylvain, adored by the Berbers. "Jovi, Hammoni, Barbaro, Sylvano." On the other side, and considerably farther back,

THE SECRET CRYPT OF THE TEMPLE OF JUPITER AMMON. VIEW OF THE WALLED-UP CAVERN IN WHICH THE STATUES AND INSCRIPTIONS WERE FOUND.

was a second dedication. At the foot of this double dedication was a white marble head of a votive bull, bearing between its horns a crescent with an inscription dedicated to Saturn; then 20 *betyles* in granite and balls of stone, often crossed by a bronze wire, and disks or ovoid balls of terra cotta. This find of balls derives importance from the fact that, while large numbers of such objects had been found at Carthage, their purposes were not known. The present finding and the objects with which the balls are associated indicate that they were votive offerings. In the extreme back of this dark corner of the chamber was a sort of secret place, where were found four almost intact statues of white marble. The three larger ones formed a triad similar to that constituted by the colossal statues found in the Sebka de Kheredine, now preserved in the Museum of Bardo. The latter statues represent the Carthaginian Isis, but those now found are of the Greek Demeter, the Roman *Ceres africana*, who superseded the Phœnician Tanit, accompanied by the slender *Canephora Oncestophora*, and a young woman clothed in transparent drapery. These statues are very graceful, chiseled in a marble of golden tone and very fine grain. A few light touches with the pencil serve to bring out the characteristic features of the sculpture and give the illusion of life. The figures had been concealed in the bottom of the crypt, which had afterward been carefully covered up and walled, and then covered with a mosaic, which effectually concealed it. They were probably thus hidden away to prevent injury by Christian enemies. The necropolis beneath the level of these chambers contains tombs down to the Roman epoch, and also very ancient Punic tombs, which carry us back to the sixth century B. C. The burial places were respected so long as Carthage remained independent, and were gradually extended out to greater distances from the city. The tombs farthest away date from about the third century B. C., while the more ancient tombs were nearer to the old town. They were excavated out of the rock of the plateau of tufa that extends beyond Bordj Djedid. The first tombs

opened by M. Gauckler were simple graves dug in the virgin sand, and are generally poor, containing nothing more than the scarabeus of carnelian or paste, which might answer as a kind of card of identity for the deceased, a bronze disk, an ostrich egg, a painted figure to serve as a protecting amulet, some pearl beads, and pottery, but never coins. Other graves are covered with a simple slab. In one of these last was found a large Punic terra-cotta mask, intact, the hideously distorted expression of which was expected to frighten sacrilegious violators of the tomb. Another grave contained an Assyrian cylinder of jade, bearing a figure of the god Marduck throttling a winged monster. As the explorers advanced toward the hill the tombs were closer together and richer. Some were arranged like troughs paved with slabs. Silver jewels, necklaces, numerous pearls of vitreous paste, and hard stones, amethyst, agate, carnelian, rock crystal, ear pendants, and a few gold rings were collected from them. In February, 1899, M. Gauckler discovered two large tombs built like the tomb of Iadamelek, which was found in 1894, at the same depth of 7 metres. The mortuary chamber was closed by a monolith door. The flat roof was protected against the earth above by a series of monoliths, disposed saddle-back fashion, while the interior of the roof was ceiled with cedar, which is now decayed, and the remains of which crumble into dust under pressure of the finger. The walls are covered with a clear white stucco. In the back of the chamber was a little broken pitcher. The niche was empty in the first tomb; in the second it was occupied by two pieces of pottery. The deceased was extended directly on the floor, without a coffin, clothed in his jewels. Numerous large jars were in a corner. The first tomb contained two skeletons—a husband and wife. The man had a silver ring with a carnelian scarabeus and seal on his finger. The woman had an ear pendant, a necklace pendant, a ring with a bezel representing a winged uræus and two doves, all in massive gold. The second tomb contained only a man's body, with a place left by its side, but not many

objects. Both tombs were less rich than might have been anticipated judging from the care exercised in their construction. A third tomb built between these two, of much less elaborate finish, was extremely rich in funerary furniture, and contained the skeleton of a woman holding a bronze mirror in her left hand, and in her right heavy cymbals of the same metal. The left wrist was hidden under a bracelet of pearls, scarabei, and little images. On the right arm were several silver and ivory rings. The figures were loaded with silver rings and a gold ring with four cynocephali engraved on the bezel. The left ear bore a golden pendant, with a tau cross. On the neck was a large necklace of massive gold, made of forty differently shaped parts, symmetrically disposed on either side of a central piece representing a turquoise crescent, resting upon a disk of jacinth. Besides these were another silver necklace, an aryballus, a figured Corinthian alabaster, a large enameled flask covered with gold leaf, a

walls, an ancient cyclopean wall, partly fallen to pieces, running "in a mighty circle" round the slope of the hill to the right and left, and forming with the hill what is designated as a courtyard; and a ground wall worked into the natural rock that formed a sort of flat floor, and which had formed part of a building. The stones of this ground wall were heart shaped and worked with a pick. The whole of the ruin was built after the general ancient Semitic pattern. The ruin is ascribed to the old conquerors, who chose here in the Fura massive a very commanding position for their fort. A second ruin was found a few days later by Dr. Peters's companion, Mr. Leonard Puzey, west northwest of the first, on another head of the same ridge looking over the plain in the same direction.

Bronzes from Benin.—In the course of the punitive expedition by the British Government to the city of Benin to avenge the massacre of British subjects a number of remarkable bronze panels were discovered. Having been sent home to England by Sir Ralph Moore, the majority of them have been presented by Lord Salisbury to the British Museum. The designs upon the plaques are apparently of native origin, but testify to contact with Europeans. A number of figures of Europeans are represented, and in such situations as imply friendly relations with the negroes, whether in sport or on occasions of ceremony. The native traditions as to the origin of these works as collected by Sir Ralph Moore and Mr. Roupell are to the effect that when the white men came a man came with them who made brass work and plaques for the king, stayed a very long time, had many wives but no children, and was given plenty of boys to teach. The panels are supposed to have been made about the middle of the sixteenth century. Other metal objects in the round are included in the collection. Among them are two human heads, over each eyebrow of which are four vertical cicatrices, and two bands between, which, with the pupils of the eyes, have been inlaid with iron. A number of carved tusks and other objects of ivory exhibit superior workmanship, but are associated with Portuguese emblems.

Japan. Dolmens in Japan.—A careful examination of the rude stone monuments of Japan and of the sepulchral chambers termed dolmens has led Mr. W. Gowland to conclude (*Transactions and Proceedings of the Japan Society*, Vol. IV, Part III, 1899) that they were built by the ancestors of the present Japanese. The aboriginal inhabitants were apparently the Ainos, who occupied the whole country until they were driven back to the north by a more powerful race. Whence came the invaders from whom the present Japanese have descended is not known, and the dolmens afford little information on this question. No dolmens have been found in China, and those which occur in Korea differ entirely from those in Japan. In fact, Mr. Gowland points out, it is not until, in passing westward through Asia, the shores of the Caspian Sea are reached that dolmens similar to the Japanese kind are found, and for more closely allied forms the search must be extended to western Europe. The approximate date of the end of the dolmen period is regarded as lying between 600 and 700 A. D., and of its beginning about the second century B. C. Mr. Gowland shows that "the period during which the dolmens were built in Japan was characterized, from its beginning to its close, by a well-developed civilization and a culture which had advanced far beyond the limits of barbarism, and was, in fact, the birthtime of

HEAD OF THE STATUE OF CERES.

statue of polychrome *faience* in the Egyptian style, disks of painted ostrich eggs, shells filled with purple paint, vases, and a lamp.

Cyclopean Ruins on the Muira River.—Dr. Karl Peters reports the discovery of cyclopean ruins near the great Kraal Inja-ka-Fura, on the Muira river, a southern tributary of the Zambezi. They are situated on a hill running parallel with the western of the two mountains through which the Muira cuts its way, and which the author calls after his own name, Mount Peters. The ruins consisted of ancient ground

the ornamental arts; that the builders of the dolmens were the ancestors of the present Japanese; that during this period the clans of the race had driven out the aborigines from the richest portion of the country, had become a settled and united people, and had made great progress in both the arts and industries."

ARGENTINE REPUBLIC. a federal republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 30 members, 2 from each province and the federal district, and a House of Representatives, numbering 86, 1 to every 20,000 inhabitants. The President and Vice-President are elected for six years by popular vote. One third of the Senators and one half of the Representatives are elected every two years. Gen. Julio A. Roca was inaugurated as President on Oct. 12, 1898, and Norberto Quiroga Costa as Vice-President. The Cabinet of ministers appointed by the President was as follows: Minister of the Interior, Dr. Felipe Yofre; Minister of Foreign Affairs and Worship, Dr. Amancio Alcorta; Minister of Finance, Dr. José M. Rosa; Minister of Justice, Dr. Oswaldo Magnasco; Minister of War, Gen. Luis María Campos; Minister of Marine, Comodore Martín Rivadavia; Minister of Agriculture, Dr. Emilio Frers; Minister of Public Works, Dr. Emilio Civit.

Area and Population.—The area of the republic is 1,778,195 square miles. The population increased from 1,736,922 at the census of 1869 to 3,954,911 at the census of May 10, 1895. The population at the latter date consisted of 2,088,919 males and 1,865,992 females. These figures do not include 30,000 uncivilized Indians, 60,000 unenumerated, and 50,000 Argentinians residing or traveling abroad. Buenos Ayres, the capital, has 753,000 inhabitants; Rosario, the next largest town, 94,025. The number of immigrants in 1897 was 72,978; of emigrants, 31,192. Of the immigrants, 21,431 were females. The total included 38,745 Italians, 13,059 Spaniards, 7,813 French, and 1,876 Germans. The total number of foreign-born residents in 1895 was 886,895, of whom 492,636 were Italians, 198,685 Spanish, 94,098 French, 21,788 English, 17,143 Germans, 14,789 Swiss, 12,803 Austro-Hungarians, 2,269 Portuguese, and 32,184 of other nationalities.

Finances.—The revenue in 1897 was \$30,466,322 in gold and \$61,035,853 in paper; expenditure, \$29,214,763 in gold and \$93,427,502 in paper. For 1898 the revenue was estimated at \$34,759,146 in gold and \$52,918,000 in paper, and the expenditure at \$22,100,182 in gold and \$97,881,111 in paper. The budget estimate of revenue for 1899 was \$32,423,500 in gold and \$67,540,600 in paper. Of the gold revenue, \$28,099,800 come from customs. The estimated receipts in paper are \$18,000,000 from alcohol, \$8,849,400 from tobacco, \$13,868,400 from other taxes, \$5,900,000 from sanitary works, \$2,000,000 from land taxes, \$7,314,600 from stamps and licenses, \$4,543,900 from posts and telegraphs, \$4,120,000 from sales and leases of land, \$2,000,000 from bank profits, and \$944,000 from other sources. The total expenditure for 1899 was estimated at \$29,070,173 in gold and \$75,782,687 in paper. The items are \$17,299,711 in paper for the interior and Congress, \$237,441 in gold and \$249,792 in paper for foreign affairs, \$6,872,114 in gold for finance, \$22,746,732 in gold and \$11,249,408 in paper for the debt, \$10,331,466 in paper for justice and public instruction, \$14,027,582 for war, \$11,256,614 for marine, \$6,086,000 in gold and \$4,400,000 in paper for public works, and \$96,000 in paper for new ministries. For 1900 revenue

was estimated at \$45,981,000 in gold and \$67,122,000 in currency; expenditure at \$32,947,000 in gold and \$95,447,000 in currency. The external debt in July, 1898, amounted to £61,900,352 sterling, not counting £9,994,098 new bonds to be issued. Of these, £6,746,030 were for conversion of the Buenos Ayres provincial debt, £1,378,968 for conversion of the debt of Buenos Ayres city, and £1,819,100 for commutation of railroad guarantees. The internal debt amounted to \$189,162,500 payable in gold and \$45,838,067 in paper in 1896, since when a popular loan of \$39,000,000 has been raised to increase the army and navy and \$6,000,000 of bonds have been issued to discharge a debt for education. The floating debt is about \$39,000,000.

The actual revenue in 1898 reached \$35,000,000 in gold and \$49,000,000 in currency. The receipts for 1899 showed in the beginning of the year an increase of nearly 25 per cent., owing to a new tax on alcoholic liquors, and the revised estimate made the total \$47,000,000 in gold and \$62,000,000 in paper. Congress in 1898 authorized a sterling loan of £6,000,000, for which, however, satisfactory proposals could not be obtained. In regard to the provincial debts, the National Government has offered to pay the interest on all national bonds acquired by the provinces when the loans were first made. Of the heavily indebted provinces, Entre Rios and San Luis concluded an agreement with their European creditors in January, 1899. The National Government sought to induce Santa Fé and Córdoba to do the same, and before the end of the fiscal year the debts of all the provinces were arranged. At the opening of Congress, on May 1, President Roca urged in his message the necessity of placing the currency on a sound basis by making notes convertible for gold, so as to avoid the fluctuations that have injured the general commerce in the past; and to accomplish this he proposes to accumulate a strong gold cash reserve, by this means gradually improving the value of the currency until it reaches par. The amount of inconvertible paper currency in circulation on June 30, 1899, was \$292,000,000.

The debts of the various provinces were converted and assumed by the Federal Government on similar terms to those made originally in respect to the debt of Buenos Ayres. The Federal Government, for example, handed over to the creditors of Entre Rios \$14,000,000 of 4-per-cent. gold bonds for the purpose of canceling the outstanding provincial obligations, and to the creditors of Córdoba \$11,000,000 of 4-per-cent. bonds to extinguish \$27,000,000 of provincial 4½-per-cent. bonds, recovering from each province the sums required for the annual service of the debt in a similar manner to that provided for in the case of Buenos Ayres. The assumption of the provincial debts, in addition to the extraordinary obligations incurred in anticipation of war, has increased the liabilities of the Government in ten years from \$120,000,000 in gold to \$469,000,000. The amount of the external and internal debt of the National Government on June 30, 1899, not including \$25,000,000 of floating debt, but including the settlement of the claims of the Transandine Railroad Company and the bonds for the Córdoba and other provincial debts not yet delivered, was \$443,991,768 in gold, requiring for the annual payment of interest and sinking fund \$27,760,211 in gold, equal to \$7 per capita, and requiring over 38 per cent. of the total federal revenue. Notwithstanding the improved financial outlook, the best terms that the Government could arrange for the new loan of £6,000,-

000, which was finally concluded in May, were an issue price of 90, less $\frac{1}{4}$ per cent. commission, with interest at 6 per cent. in gold and a sinking fund of 1 per cent., the loan being secured on the alcohol tax. The external obligations of the provinces, which have now been assumed by the National Government, were originally contracted under the free banking law of Nov. 3, 1887. The proceeds of the various loans were deposited in gold in the care of the National Government, which issued $4\frac{1}{2}$ -per-cent. gold bonds for the amount; and these were delivered to the conversion bureau, where they were retained as security for the note issue of the various provincial banks. The gold was sold by President Juarez Celman, and thus the security for the $4\frac{1}{2}$ -per-cent. bonds disappeared. The National Government for a long time repudiated responsibility for the bonds, placing its argument on the ground that it had acknowledged liability for the note issues.

The Army and Navy.—The authorized strength of the regular army is 29,513 officers and men. The actual strength in 1898 was 945 officers and 12,073 men. The National Guard embraces all able-bodied citizens, and numbers about 480,000. Young men are called into camp every year from the age of twenty for the period of two months, and receive a careful military training.

The navy contains the old armored cruiser *Almirante Brown*; the small coast-defense vessels *Libertad* and *Independencia*; 5 new belted cruisers of 6,880 tons, the *Garibaldi*, *San Martin*, *Pueyrredon*, *Gen. Belgrano*, and *Rivadavia*, built in Italy for the Italian and Spanish governments, each armed with 2 10-inch guns mounted for an elevation of 40° , besides 10 6-inch and 6 4.7-inch quick-firing guns; the protected cruiser *Nueve de Julio*, of 3,575 tons displacement, capable of making 22 knots with natural draught; the second-class cruiser *Buenos Aires*, of 4,500 tons, which has made more than 23 knots without forced draught; 5 converted cruisers, obtained from the Italian and Spanish commercial marine; and the destroyers *Corrientes*, *Misiones*, and *Entre Rios*, built in England, with a contract speed of 26 knots. Their sister, the *Santa Fé*, has been lost.

Navigation.—The number of vessels entered from abroad during 1897 was 10,363, of 6,064,064 tons, of which 6,827 were steamers, of 5,522,973 tons, and 3,536 were sailing vessels, of 541,091 tons.

The merchant marine in 1898 numbered 86 steamers, of 31,976 tons, and 157 sailing vessels, of 39,695 tons.

Commerce and Production.—The cultivable area is estimated at 240,000,000 acres, of which only 15,000,000 are now tilled. There are 5,500,000 acres devoted to wheat, the crop of which in 1897 was 1,500,000 tons. Sugar cane occupies about 82,000 acres. Vineyards in 1895 covered 71.135 acres, producing 42,267,000 gallons of wine. 10,582 tons of raisins, and 478,800 gallons of alcohol. The number of cattle in 1895 was 21,702,000; of horses, 4,447,000; of sheep, 74,380,000; of goats and other animals, 3,885,000.

The gold value of imports in 1897 was \$98,289,000, and of exports \$101,169,000. The imports of animal products were \$2,425,759; of vegetable products, \$12,896,503; of beverages, \$7,728,705; of textile goods and apparel, \$30,449,912; of oils and minerals, \$3,215,057; of chemicals, \$2,985,231; of colors and dyes, \$626,000; of timber and wood manufactures, \$4,985,698; of paper, \$2,642,984; of hides and leather, \$904,638; of iron and iron

manufactures, \$16,986,023; of other metals, \$2,508,530; of glass and crockery, \$8,011,029; of various articles, \$1,922,879. The exports of animals and animal products were \$74,044,525; of agricultural products, \$23,336,369; of forest products, \$1,918,241; of mineral products, \$164,989; of products of the chase, \$587,863; of various articles, \$1,117,312. The export of beef and mutton was 91,374 tons; of wool, 205,571 tons; of sheepskins, 37,077 tons; of wheat, 101,845 tons; of corn, 374,942 tons. The imports of gold and silver in 1897 were \$663,378, and the exports \$4,936,088. The business of exporting live stock and meat to the European markets, especially England, has grown so rapidly in the course of the last six years that sheep and cattle have latterly been bred for their flesh rather than for wool and hides, as was formerly the practice. The Argentine exports of live animals now compete successfully with those of the United States and Canada, and the trade in frozen mutton compares favorably with that of Australia and New Zealand. The rich pastures of the river Plate are succulent during the whole winter, and are never dried up in summer like the grazing lands of Australia. The importation of fine bulls and rams from England and France has greatly improved the breed of cattle and sheep. The first shipments of live animals were made in 1889. The shipments for the first six months of 1899 were 116,000 steers and 341,000 sheep, besides 805,000 frozen carcasses. This includes the trade with Brazil, but not the large herds driven over the Andes for sale in Chili. The average weight of bullocks exported to Europe is 1,500 pounds. This market and the Liebig factory of extract of beef on the river Uruguay absorb the native breed of cattle to the extent of about 300,000 animals yearly, which are worth only a third of the price of the better bred cattle. The old long-horned breed is only raised in the remote districts, and even there a slight intermixture of Durham or Hereford blood is found. In the principal grazing districts breeders have not only graded up their cattle till they are all three quarters or seven eighths Hereford or Durham, but have greatly increased the capacity of the land for fattening stock by sowing alfalfa. The land adapted for this forage crop is practically unlimited, and with the extension of its cultivation at the present rate the country in the course of five years will be able to support 50,000,000 head of cattle, and double this number in five years more. The herds are allowed to graze in the alfalfa fields, and some *rancheros* prepare them for export by feeding corn. Animals unsuitable for export are converted into dried beef for the Brazilian and Cuban markets in the *saladeros*, in which 1,360,000 were slaughtered in the first six months of 1899. Butter and cheese are not yet manufactured on a large scale, but considerable shipments of butter have been made to Brazil and more recently to Europe. The number of sheep in the country is at least 85,000,000, consisting of the merinos and merino grades that formerly preponderated everywhere, and Lincolns, Oxfords, Leicesters, and other mutton sheep now bred for export in the live state and as frozen mutton. The bulk of the wool is shipped to the Continent of Europe, but the coarse long grades are worked up in the carpet factories of the United States. Horses and mules have not been bred extensively, but in the last three years the British Government has purchased the remnants for its cavalry in South Africa in Buenos Ayres. New regulations for the shipment of live stock, published on May 25, 1899, provide

for the careful inspection of animals and less crowding in transit.

The value of the trade with the principal countries in 1897 is shown in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain.....	\$36,392,067	\$12,984,690
France.....	11,019,576	22,999,019
Germany.....	11,114,102	14,047,185
United States.....	10,101,714	8,321,611
Belgium.....	8,046,254	8,934,629
Italy.....	10,943,088	3,964,616
Brazil.....	4,761,505	8,695,187

Communications.—There were 9,270 miles of railroad in operation in 1897. The capital was \$510,643,296 in gold, of which \$56,331,063 represented national, \$83,859,062 provincial, \$113,311,995 guaranteed, and \$257,141,178 private lines. There were 16,044,389 passengers and 9,001,559 tons of freight transported in 1897.

The length of telegraph lines is 25,345 miles, with 59,060 miles of wire. Of the total, 11,023 miles, with 23,572 miles of wire, belong to the Federal Government; 7,070 miles, with 18,717 miles of wire, to railroads; 4,428 miles, with 7,462 miles of wire, to telegraph companies; and 2,824 miles, with 9,309 miles of wire, to other concerns. The number of messages in 1896 was 4,953,887.

The post office in 1896 forwarded 177,641,000 pieces of mail matter, of which 24,947,340 were international. Postal and telegraph receipts were \$30,069,799; expenses, \$27,169,020.

Political Affairs.—The long-standing dispute between the Argentine Republic and Chili over the boundary line in Patagonia was by mutual agreement submitted on Sept. 22, 1898, to the arbitration of the British Government. Another question of boundaries arose in respect to territory in the north, the district of Puña de Atacama, formerly a part of Bolivia, which Chili claimed by right of conquest during the war against Peru and Bolivia and the Argentine Republic by virtue of cession by Bolivia subsequent to that war. This dispute was referred to an international commission, with William I. Buchanan, the United States minister at Buenos Ayres, as arbitrator, which met on March 20, 1899, and in three days concluded the delimitation, recognizing part of the Argentine and part of the Chilian boundary lines, and dividing the disputed territory between the two states. A colony of Welsh settlers, who have built irrigation works, has done more for the agricultural and pastoral development of the Argentine part of Patagonia than the Argentine people have themselves. The success of this foreign colony has impelled the Argentine Government to undertake the construction of railroads giving access to the interior of Patagonia. The federal authorities also recognize the necessity of establishing colonization laws which will prevent the alienation of large blocks of land in this territory, and will encourage immigration and settlement by facilitating the acquisition of small farms. When the war cloud that has hung over the country for many years was lifted by the definite agreement with Chili for the settlement of the boundary dispute the military agent in Europe, who was contracting for Krupp cannon, was instructed to change the order, and take railroad material instead. Having averted the danger of war and stopped the large expenditures for war material that for several years have been the cause of heavy additional taxation and the piling up of debt at home and in Europe, President Roca has an opportunity of studying the reduction of

taxes, the improvement of the police, and the question of the administration of justice, which he described in his message as having fallen into such discredit that the material progress of the country demands better guarantees for life, property, and general rights. Another problem is that of an immigration policy that will attract people from Europe to the vast fertile areas that are adapted in every way for settlement. The Federal Government is hampered in its efforts to bring about reforms in the police and the judiciary by the limitations to its powers over these institutions set by the national Constitution, which gives absolute autonomy in local affairs to the fourteen states of the republic, which are extremely jealous of their rights, and resent any interference of the national authorities in matters belonging to the local administration. The intervention of the Federal Government is legal only for the prevention of a disturbance of public order or for the purpose of remedying any infraction by one state government of the constitutional rights of another. After the provincial elections of March 20 in Buenos Ayres the President saw fit to intervene in a local quarrel to put an end to a deadlock. Dr. Irigoyen, the Governor, refused to recognize the candidates who were declared elected to the provincial Legislature, declaring that their election was obtained by fraudulent practices. The local Chambers, however, asserted that the Governor had no authority to decide the matter, and, after scrutinizing the returns, declared the various candidates legally entitled to their seats. Dr. Irigoyen then placed the legislative hall in the care of the police, with orders that no person be allowed to enter. As all sittings of the Chamber were thereby forcibly suspended, the federal authorities decided to take possession of the capital for the purpose of inquiring into the merits of the quarrel and restoring a republican form of government. The federal commissioner charged with the investigation decided that the elections were void on account of fraud, and on May 26 issued a decree ordering a fresh ballot. One of the first measures brought before Congress was a bill to facilitate judicial procedure. Owing to the antiquated constitution of the judiciary, the federal and the provincial courts were clogged with tens of thousands of cases awaiting trial or judgment. The increase in the revenue resulting from new taxation and the expansion of the import and export trade, with the cessation of warlike expenditures, prompted the mercantile community, which is largely composed of foreigners, to begin an agitation for the reduction of taxation. The total revenue—national, provincial, and municipal—amounts to about \$250,000,000 a year, or \$62 per capita. The surtax of 10 per cent. on the customs tariff, imposed to provide ways and means to prepare for the eventualities of a war with Chili, was continued in force, and new taxes had recently been placed on alcohol and other articles of consumption. The merchants of Buenos Ayres in a monster petition prayed for the reduction of duties, the revision of tariff valuations, the fixing of taxes for a term of three years, and the reform of the commercial code, especially in regard to the laws of insolvency. A commercial treaty with the United States was negotiated and signed in July, according to the provisions of which Argentine wool, hides, and sugar are admitted at minimum tariff rates into the United States in return for reciprocal advantages extended by the Argentine Republic to American canned goods, cereal food preparations, and lumber.

ARIZONA, a Territory of the United States, organized Feb. 14, 1863; area, 113,020 square miles. The population, according to each decennial census, was 9,658 in 1870; 40,440 in 1880; and 59,620 in 1890. Capital, Phoenix.

Government.—The following were the Territorial officers during the year: Governor, N. O. Murphy; Secretary, Charles H. Akers; Treasurer, F. W. Pemberton; Auditor, G. W. Vickers; Adjutant General, H. F. Robinson; Attorney-General, C. A. Ainsworth; Superintendent of Education, R. L. Long; Geologist, W. P. Blake; Chief Justice of the Supreme Court, Webster Street; Associate Justices, Richard E. Sloan, Fletcher M. Doan, George R. Davis; Clerk, Lloyd Johnston—all Republicans.

Finances and Valuations.—The following items are taken from the Governor's message to the Legislature of 1899: The assessed valuation of the taxable property is \$31,473,540. The rate of taxation differs in the counties, but the average rate throughout the Territory is \$3.50 on the \$100, 80 cents of which is for Territorial purposes solely. The bonded and floating debt, Dec. 31, 1898, was \$2,680,000. Deducting from this county and city funded indebtedness, leaves a bonded Territorial debt of \$1,045,972.43; adding the floating debt, \$255,112.73, makes a total Territorial debt of \$1,301,085.16; less cash in hands of Treasurer, \$161,950, leaves a net Territorial indebtedness of \$1,139,135.16.

The total city and county funded indebtedness amounts to \$1,634,027.57. The Territory still has bonds outstanding bearing a higher rate of interest than 5 per cent., amounting to \$281,000. These can be funded into fifty-year 5-per-cent. refunding bonds. Unless Congress renews the refunding act, no more bonds can be sold to take up unpaid warrants since Jan. 1, 1897.

Education.—In February the enrollment at the Territorial University was 130, not including some who are pursuing special studies. The classrooms and dormitories are not large enough for the present attendance.

The Normal School at the same date had 180 pupils, and it graduated 32 in June. A new normal school is located at Flagstaff, in the northern part of the Territory.

The Indian School near Phoenix has about 600 pupils. The Government appropriates to it \$140,000. Three new buildings have been added recently. The superintendent's report gives the scholastic population of the tribes immediately adjacent to the school as 8,170. In addition to pupils from these tribes, advanced students are drawn from other Indian schools in Arizona, California, and Nevada.

The New Capitol.—Ground was broken in February for the foundation of the new Capitol. It is to be 84 by 184 feet, and three stories in height. The legislative halls and chambers for the Supreme and Federal Courts will occupy the upper floor.

Fort Whipple.—The Secretary of War issued an order in November for the immediate restoration of Fort Whipple, so that troops may be stationed there as soon as possible. The troubles in the Navajo country had made the people of the Territory anxious to have this important station well manned. It is the only post in the Territory that has railroad communication with the outside world.

Railroads.—The Arizona and Utah road was completed Aug. 16 amid great rejoicing at the camp of Chloride, which the new line brings into closer touch with its markets.

The Territorial Board of Equalization fixed the

valuation of the nine railroads this year at a total of \$5,246,018.17.

Public Lands.—The report of the Surveyor General shows that the area of public lands, together with the reserve land appropriated to the Territory, at the close of the year was: Surveyed, 10,887,865 acres; unsurveyed, 41,337,590 acres; total, 52,225,461 acres. There was 99,445 acres granted for Indian reservation patents. The number of mineral and mill-site patents during the year was 36. The report says:

"The special deposits made by individuals for office work and stationery in connection with the survey of mineral claims for the year ending June 30, 1899, amounted to \$3,945; mineral surveys ordered, 89; locations embraced in said order, 166; mill sites, 4; mineral orders amended, 20; mineral surveys approved, 50; mineral surveys pending, 60; mineral plats prepared, 209; transcripts of mineral surveys, notes, reports, etc., 50.

"The number of miles surveyed during the year embraced an area containing 162,850.74 acres.

"There is a large immigration to Arizona on account of her valuable and almost undeveloped mineral resources. This has created a large home market for agricultural products, and made it possible for a profitable increase in the number of people engaged in agricultural pursuits.

"The lands when irrigated are wonderfully productive, but on account of the cost of transportation of farm products it does not pay to ship them a great distance."

It was announced in June that the decision of the United States Supreme Court in the Algodones land grant case would have the effect of opening for entry a great portion of a very rich valley in Yuma County, which has been held back from prosperity for many years by the uncertainty as to this final decision, which is now rendered in favor of the Government.

The following dispatch was published in April: "Special-Agent Holsinger, of the Interior Department, is about to bring suit for the recovery from a number of mining companies for the value of immense quantities of mesquite wood. He estimates that 20,000 cords of mesquite have been cut from the Gila valley in the vicinity of Solomonville and Safford during the last few years, and all of it illegally. It is also charged that the Papago Indians and Mexicans supplying Tucson with wood are daily violating the law. A man may cut mesquite legally for firewood for his personal use, but for anything more extensive he must apply to the Land Office at Washington."

Water Storage.—The greatest storage basin in the world is to be built in the mountains, 60 miles from Phoenix. The United States Government has granted to the Hudson Reservoir and Canal Company this basin, known as the "Tonto Basin," to be used as a storage reservoir. The company proposes to build a dam at the head of the cañon, where the river emerges from the basin, thus creating a lake, which will cover 18 square miles to a depth of 100 or 200 feet. It will be necessary to build a dam 200 feet high and some 600 feet in length at the top, although the cañon is only 200 feet wide from the first 100 feet from the bottom. The Territory of Arizona has granted the company the use of the channel of Salt river in which to convey the waters thus stored to the valley, and the stored waters will therefore be turned back into the channel as needed, and conveyed through the cañon for 30 miles to the head of the valley, where the first diverting dam is found. To construct

this great storage reservoir will cost, it is estimated, about \$2,500,000.

Mining.—It is stated that Arizona led in the increase in copper production in 1898. A St. Louis dispatch in June said that a company just incorporated has a claim in Pima County on which is a hill 225 feet high, that by actual measurement shows 3,500,000 cubic yards of copper, gold, and silver ores, or about 8,000,000 tons.

Great activity has been shown in the copper districts this year, and one estimate placed the probable product as high as \$13,000,000, with half that amount in gold and silver. Among the important copper districts are Clifton, Jerome, Bisbee, and Globe, and new properties are developing in the vicinity of Tucson.

In November it was reported that a rich bed of porphyry and porphyritic schist carrying gold and silver had been discovered in Placerita gulch in the northern part of the Territory, and that several samples of a 46-foot cut across the cleavage of the schist showed an average of \$4 to \$8 per ton, while in other places averages of shafts and pits showed values of more than \$12 a ton.

About the same time much excitement was caused by the discovery of great beds of platinum in the Cataract creek country. Gold and aluminum are also found there. The principal claims are about 40 miles from Williams, and that town was said to be almost depopulated, while the road between was swarming with conveyances of every kind.

The Territorial Geologist says: "Arizona shows the occurrence of several of the rarer minerals, such as vanadinite, wolframite, and hilberite, in quantities sufficient for commercial exploitation. An important development of the turquoise industry has been commenced at Turquoise mountain, in Mohave County. Ancient Aztec workings have been cleaned out, and hundreds of prehistoric implements have been found. The Territory contributes to the list of beautiful gems in addition to turquoise. The peridot is highly valued and in greater demand; so also the ruby-like garnets of the Navajo country. The onyx of Yavapai County has not lost its beauty or its measure of appreciation."

Legislative Session.—The Legislature met Jan. 16, and adjourned March 16. Morris Goldwater was President of the Council, and Henry F. Ashurst Speaker of the House. There were 4 Republican and 8 Democratic members of the Council, and the House was composed of 11 Republicans and 13 Democrats. Including the general appropriation bill, 69 acts were passed.

A new county, Santa Cruz, was created from the eastern part of Pima County, making the whole number of counties 13.

An act abolishing the Loan Commission was vetoed, but passed over the veto. The Immigration Commission also was abolished, and the boards of supervisors of first-class counties may appoint commissioners of immigration. Another act abolished the Board of Equalization.

A residence of six months in the Territory was made a condition for a voter, and poll taxes must be paid before registration.

The Governor was authorized and directed to appoint, within twenty days after the passage of the act, a commission consisting of three competent lawyers, not more than two of whom should be of the same political party, to revise the laws of the Territory, eliminating all "crude, useless, imperfect, and contradictory matter."

To encourage the building of railroads a measure was passed exempting them from taxation for ten years. Canals and reservoirs constructed

for irrigation and manufacturing were also exempted.

Other important bills were for taxation of insurance companies and for regulation of the acknowledgment of deeds and the release of mortgages. The militia law was repealed.

Memorials to Congress were adopted, asking for an appropriation of \$20,000 for building a dam on Gila river, for increase of legislators' pay from \$4 to \$8, and for statehood.

Other acts were:

For compulsory school attendance.

Regulating homestead exemptions.

Amending the prize-fight law.

To lower the interest on Territorial warrants.

Providing for free libraries and reading rooms in municipalities.

Making privileged certain communications to physicians and surgeons.

Fixing the age of consent at sixteen.

For the protection of the American flag.

To encourage prospecting, and fixing assayers' rates.

ARKANSAS, a Southern State, admitted to the Union June 15, 1836; area, 53,850 square miles. The population, according to each decennial census since admission, was 97,574 in 1840; 209,897 in 1850; 435,450 in 1860; 484,471 in 1870; 802,525 in 1880; and 1,128,179 in 1890. By estimates based on the school census of 1897 it was 1,302,185 in that year. Capital, Little Rock.

Government.—The following were the State officers during the year: Governor, Daniel W. Jones; Secretary of State, Alexander C. Hull; Treasurer, Thomas E. Little; Auditor, Clay Sloan; Attorney-General, Jefferson Davis; Superintendent of Education, J. J. Doyne; Commissioner of Mines, Manufactures, and Agriculture, Frank Hill; Railroad Commissioners, appointed in March, Robert Neill, J. G. Wallace, Henry W. Wells; Mine Inspector, Robert Boyd; Land Commissioner, J. W. Colquitt; Inspector of Wines, Carl A. Starck; Board of Charities, S. H. Davidson, T. H. Matthews, J. J. Thomas, J. W. Meeks, G. M. Heard, succeeded in March by G. L. Basham, and J. G. B. Simms, succeeded by W. A. Jeffers; Chief Justice of the Supreme Court, Henry G. Bunn; Associate Justices, Simon P. Hughes, C. D. Wood, Burrill B. Battle, and James E. Riddick; Clerk, P. D. English—all Democrats.

Valuations and Finances.—The amount of taxable property in the State, exclusive of Crittenden County, is \$176,423,418. Crittenden County's total in 1898 was \$2,089,025. This indicates an increase of about \$1,000,000. The value of real property is \$118,718,357; of personal, \$57,705,061.

The rate of taxation, as fixed by the Legislature for this year and the next, for State purposes, is 5½ mills, an increase of three quarters of a mill. Of this, 2½ mills are for general purposes, 2 mills for schools, and a quarter mill for pensions. The necessity for the other mill is explained by the Auditor as follows: "First, our agreement and solemn pledge made to the United States Government to pay her \$160,000 within the next year, as the balance on our debt found due to the Government and duly acknowledged by act of Legislature of 1897; and, second, since the Legislature had passed the funding act, calling in all old bonds which bear 6 per cent. for exchange for new bonds bearing 3 per cent., it was certainly nothing more than common ordinary honesty to provide a fund out of which the interest on the new issue could be promptly and fully paid when due, which will be done out of balance of one-mill sinking-fund tax after paying

our obligations to the United States. Not only will these obligations be promptly met, but from this rate of taxes, within the next two years, Arkansas will call in and cancel \$375,000 of old scrip outstanding against her, and for many years overdue, and bring down the balance owed on bonded indebtedness, three fourths of which will be in her school fund, cleared of all doubt and confusion, and with funds ready to meet her obligations as they mature."

Canceled school bonds and coupons to the amount of \$1,085,200 were burned in August, having been replaced by new 3-per-cent. bonds. The finances are now in better condition than ever, according to the report. The total outstanding debt of the State is \$2,045,867; but of this the common-school fund owns \$468,885, the sixteenth-section fund \$656,450, and the State University \$86,970, leaving due to private parties \$833,562.

Pensioners.—At the close of 1898 there were 1,178 pensioners on the ex-Confederate State pension roll, drawing amounts from \$25 to \$100 per annum. The total amount of pension fund on hand for 1898 was in round numbers \$44,000, which when prorated to the pensioners on the roll gave them 94 per cent. of their full allowance. The law says there shall be paid out of the treasury of the State to every soldier who has been for twelve months preceding the date of his application a resident of the State, and who is indigent and incapacitated for manual labor by reason of a wound received while in discharge of his duties as a soldier in the service of the State of Arkansas or of the Confederate States of America, certain amounts annually, according to the degree of disability.

Charities and Corrections.—At the Asylum for the Insane 787 patients were under treatment in 1898; 604 remained at the end of the year. The percentage of recoveries was 44 of those admitted, and the death rate 6.89 per cent. of all treated. The average cost of a patient is \$91.08 a year. Of the sum of \$120,000, appropriated for the two years ending April 1, 1899, \$62,004.36 had been expended by Sept. 30, 1898.

The buildings of the Deaf-mute Institute were destroyed by fire Sept. 30. The loss was about \$200,000, and there was no insurance. The use of Fort Logan H. Roots was granted for the school until permanent quarters could be built. Only about 33 persons were in the buildings at the time of the fire, which was before the opening of the term. The whole number, including pupils and teachers, is about 300. Steps have been taken to rebuild immediately.

The report of the superintendent of the Penitentiary gives the following details: "We had in this institution on Dec. 31, 1898: White males, 275; colored males, 639; colored females, 10; Indian males, 4; total, 928. The average population for 1897-'98 was 963; the average population for 1895-'96 was 931; an increase in population during last two years of 32. The greatest number ever confined in the Penitentiary of this State was reached April 6, 1898, being 1,005. Our total revenue for the years 1897-'98 from sale of farm products, sale of wood in the city, and the hire of convicts is \$226,969.61. Our balance on Dec. 31, 1898, was: Cash in State treasury, \$48,310.66; cotton and cotton seed unsold, estimated, \$37,500; personal assets, appraised valuation, \$62,251.78; total assets, not including real estate, \$148,062.44." The cost of maintenance is \$69.21 a year. A camp has been established 18 miles from the city, where the women and the white boys under twenty-one are kept.

The State has contracted the labor of 300 con-

victs to be used in railroad construction. Heretofore most of the convicts have been worked at raising cotton on the share system.

Education.—There are 465,830 children of school age in the State, and the apportionment of State money gives them 86 cents per capita. Actually enrolled in the public schools are 296,785, of whom 220,736 are white and 76,049 colored. Enrolled in private and denominational schools are 5,835.

During the summer 34 institutes were held for white teachers with a total enrollment of 1,547, and 15 for colored teachers with a total enrollment of 761. The State received \$2,000 from the Peabody fund; no appropriation was made by the Legislature.

By act of the General Assembly the State University, at Fayetteville, is to be known as the University of Arkansas.

Railroads.—During the first eight months of the year 234 miles of track were added to the railway mileage in the State.

The last rail on the Choctaw and Memphis road was laid Oct. 12. This line includes the Little Rock and Memphis and the Choctaw, Oklahoma and Gulf, with new connecting track, making a line of 563 miles from Memphis to Weatherford, Indian Territory.

The Arkansas Northern, to run 211 miles northwest to Springfield, Mo., has been incorporated. Other shorter roads are in process of construction. The Searcy and Des Arc is a consolidation of the Searcy and West Point and the Des Arc and Northern, and is to be made a continuous line between the towns. The Deckerville, Osceola and Northern is running from Deckerville to Osceola, and opening up a vast territory.

The Jonesboro, Lake City and Eastern is running trains over a large portion of its tracks, and is building more lines, intending to have a through line from Jonesboro to the river. The Hoxie and Southern is also running trains, and will have through connection with the fast trains of the Kansas City Company. The Arkansas Central from Fort Smith to Paris, 46 miles, is practically completed.

The New Capitol.—The Attorney-General instituted proceedings to test the constitutionality of the act providing for a new Capitol. The grounds of action were that the part of the act appropriating \$50,000 to enable the commissioners to begin the work was not passed by a two-third vote in the House, as required by the Constitution for an appropriation bill; also that the act provided that the new building should occupy the present Penitentiary site, and invested the Penitentiary commissioners with authority to buy land and build a new Penitentiary, which provision was not mentioned in the title of the act. Without waiting for the decision, the Capitol commissioners—Gov. Jones, G. W. Murphy, G. W. Donaghey, C. G. Newman, J. M. Levesque, A. H. Carrigan, and R. M. Hancock—went on with the work, and ground was broken July 4. G. R. Mann is the architect employed. The decision of the Supreme Court was given Oct. 7, affirming the constitutionality of the act, the court holding that the Legislature has the power to determine what expenses come under the head of "necessary expenses of the government" which do not require a two-third vote, and that the provision for the new Penitentiary comes under the general purpose of the bill, and need not be specially mentioned in the title. The cost of the Capitol is limited to \$1,000,000.

Labor.—There was a long strike this year of miners in the western part of the State, the cen-

ter of trouble being Huntington, Sebastian County. The importation of negroes from Kentucky to take the place of strikers threatened to bring on a race war, and the Governor issued an order to the sheriff to prevent the imported laborers from debarking; but he afterward modified the order so as to allow "orderly, respectable white laborers" to come in, and promised them protection. More negroes and others were brought in, and a State court issued an injunction restraining companies from importing miners and railroad companies from bringing them in from other States; but the injunction was dissolved by the Federal court for the western district of Arkansas. There was a riot at Huntington, May 15, in which one man was killed and another wounded in an attack on a mine and some miners' boarding houses. A number of miners were sentenced in July to imprisonment for five to ten months for violating the injunction of the court restraining strikers from interfering with the operation of the coal mines and from intimidating the men at work. It was estimated that the strike had caused a loss of at least \$1,250,000.

The report of the Mine Inspector for 1898 says the question of child labor still continues a problem, parents being found willing to swear to anything in order to keep their children at work.

Lawlessness.—At Hot Springs, March 16, a political feud ended in a street riot, in which five men lost their lives.

A so-called race war took place in March in Little River County, in the extreme southwestern part of the State. It was believed that 23 negroes were in a plot to begin a race war, and mobs of white men turned out to hunt them down. The dispatch said: "The exact number of negroes who have been summarily dealt with, or those who may yet fall into the hands of the mob before order is restored, may never be known. Seven bodies have been found, and other victims are being hunted, and will meet the same fate when run to earth. The work of dispatching the first two or three was easy, but the news soon spread among the negroes, who, instead of making the resistance and offering the battle that they had threatened, became panic-stricken, and began getting out of the community as quickly as possible. Two whose names were on the list of conspirators got a good start of the men who were detailed to look after them, and succeeded in reaching the Texas State line before being captured. However, they did not escape. They were overtaken, out of breath and exhausted, and were swung up without ceremony."

A so-called vigilance committee in August notified the colored residents of Paragould, Greene County, that they must leave the town. Many of them applied to the mayor, who declined to promise them protection. They left in large numbers, and the houses of those remaining were stoned. The citizens held a mass meeting, and deplored the action of the mob. They called upon the authorities to afford protection to all residents without regard to color.

De Queen.—The town of De Queen, on the Kansas City, Pittsburg and Gulf Railroad, 50 miles north of Texarkana, was almost totally burned up in the night of Oct. 1. Fifty-four business houses, including banks and hotels, were destroyed. The town was incorporated July 5, 1897, and has grown very rapidly since the completion of the railroad. About 10,000 bales of cotton are handled there each year.

Legislative Session.—The General Assembly convened Jan. 10 and adjourned April 19, after the longest session in the history of the State.

M. J. Manning was President of the Senate, and A. F. Vandeventer was Speaker of the House.

The most important act of the session was the antitrust law. It provides that any person or corporation which shall be a party to any pool or agreement to fix prices or premiums shall be deemed guilty of conspiracy to defraud, and be liable to a fine of \$200 to \$5,000 for each violation of the law, and that every day such corporation or person shall continue to do so shall be regarded as a separate offense. As interpreted by the Attorney-General, it excluded from transacting business in the State not only corporations and companies combining to fix rates in Arkansas, but all such as were members of any such associations in combination to fix or limit prices anywhere. As soon as the bill was signed all foreign fire insurance companies authorized to do business in the State, of which there were 63, withdrew, and policies were obtainable only in the two or three mutual companies organized and incorporated under the State laws.

The business men of Little Rock held a meeting, and appealed to the Legislature to modify one of the provisions of the law, that they might be able to insure their property in legitimate insurance companies. One of the houses laid the appeal on the table; the other indefinitely postponed it. A member of the Legislature, Hon. J. E. Wood, told the business men, in an address, that "they were to blame for the passage of the bill, for not taking more interest in politics and electing men to the Legislature who were more closely in touch with the business interests of the State." For this declaration he was censured by the House, but afterward a resolution was adopted expunging the censure from the record. Cases to test the validity of the law were brought in the circuit court, and decision was given that the law could not apply to companies in combinations in other States if they had not entered into any agreement to control rates in Arkansas. This decision was affirmed by the Supreme Court.

Four other acts affecting insurance companies were passed. One requires every corporation for whatever business organized to file with the Secretary of State a copy of its charter and a certificate of appointment of an agent for service; another is an amendment of the valued-policy law, applying to real property only, and making the amount upon which premium is collected a liquidated demand in case of loss; another provides that in suit upon policy issued on personal property proof of substantial compliance with the terms of the policy by the insured is sufficient to recover; the last applies to fraternal orders, and requires such associations to file a copy of their constitution and by-laws and a statement of their condition with the Auditor of State on March 1 of each year, and pay a fee of \$10.

An act was passed establishing a railroad commission. Its title is: "An Act to provide for the regulation of railroad freight and passenger tariffs in this State, to prevent unjust discriminations and extortions in the rates charged for the transportation of passengers and freight, and to prohibit railroad companies, corporations, and lessees in this State from charging other than just and reasonable rates and to punish the same, and prescribe a mode of procedure and rules of evidence in relation thereto; and to appoint commissioners and to prescribe rules for their government and define their powers and duties in relation to the same."

The Governor was authorized to appoint the three commissioners, to serve until the next general election, by and with the advice and consent

of the General Assembly in joint session. The salary of each commissioner was fixed at \$2,500, to be paid by the State.

By an act "to suppress the illegal sale of liquors, and to destroy the same when found in prohibited districts," "any chancellor, circuit judge, justice of the peace, mayor, or police judge, upon his own information or that of others given to him that spirituous liquors have been shipped to any prohibition district to be sold contrary to law, may issue a warrant directed to a constable, marshal, sheriff, or chief of police, commissioning him to search for and, upon finding any such liquors, to publicly destroy the same." In November this law was declared invalid in a circuit court, on the ground that it allowed the confiscation of one's personal property without due process of law.

The Governor sent a special message, calling the attention of the Legislature to the prevalence of smallpox in parts of the State; and an appropriation of \$5,200 was made to the Board of Health for the purpose of preventing the spread of the disease.

The appointment of a board of Capitol commissioners was provided for. They are to have in charge the building of a new Statehouse on the present site of the Penitentiary. Each commissioner receives \$5 a day while actually engaged, and 5 cents a mile in traveling to and from the capital.

The office of State Wine Inspector was created. It is to be the duty of the inspector to procure samples of any wine sold in the State which he has reason to believe impure, to have it analyzed, and to institute prosecutions in cases where the wine falls below the standard.

Railroad companies are to be responsible for rough handling of baggage in sums of not less than \$25 nor more than \$200.

The widow of a deceased Confederate soldier or sailor who has remained unmarried may apply for a pension after the death of her husband.

A county court may contract for the work of county prisoners with a person in another county, or may order the prisoners worked on the public roads.

All coal mined and paid for by weight must be weighed before it is screened.

In counties where there is no poorhouse county judges may let out the paupers to the lowest responsible bidder.

County-farm convicts are to be credited with 75 cents for each day they are on the farm, whether they work or not.

Marriages heretofore solemnized by mayors are declared legal and binding, and children born of parents so married are declared legitimate.

Other acts of the session were:

Appropriating \$5,000 to pay costs incurred in enforcing the antitrust law.

Making it unlawful to kill deer for pleasure or pastime in Mississippi, Crittenden, and Cross Counties.

Amending the mechanics' lien law; suit to be instituted within fifteen months.

Allowing ex-Confederate and Union soldiers to peddle without license.

Appropriating \$55,000 for disabled ex-Confederate soldiers.

To give the mortgagor right of redemption twelve months after date, when real property is sold under foreclosure.

For better protection of labor in the milling and manufacturing industries of Arkansas; wages to be paid in currency.

To better inform claimants of delinquent lands

that same have been forfeited for nonpayment of taxes.

Requiring physiology and hygiene to be taught in public schools, with special reference to the effects of alcoholic drinks.

To extend the land grant to the Mississippi River, Hamburg and Western Railroad.

Authorizing mechanics and artisans to sell personal property on which they hold liens.

Relieving husbands of responsibility for antenuptial debts of their wives.

Making it a misdemeanor to sell or give to minors under twenty-one cigarettes or material for making them, under penalty of a fine of \$100 to \$300; or to sell or give to minors under fifteen cigars or tobacco in any form, under penalty of \$10 to \$50.

Making it unlawful to catch, kill, or injure any wild Chinese pheasant for five years from April 10, 1899.

A joint resolution was passed to submit a proposed amendment to the Constitution, permitting State and county officers to give bonds in guarantee companies.

A resolution proposing an amendment exempting new cotton and woolen manufacturing industries from taxation for five years was defeated in the Senate.

The appropriations amounted to \$1,136,385.30.

A bill to separate the school money raised by special levy, so that the part paid by white taxpayers should go to the support of white schools, and that paid by colored to colored schools, was introduced in the House, but failed.

ASSOCIATIONS FOR THE ADVANCEMENT OF SCIENCE. American.—The forty-eighth meeting of the American Association was held in Columbus, Ohio, during Aug. 19-26, 1899. The officers of the meeting were: President, Edward Orton, of Columbus, Ohio. Vice-presidents

EDWARD ORTON.

of the sections: A, Alexander Macfarlane, South Bethlehem, Pa.; B, Elihu Thomson, Lynn, Mass.; C, Frank P. Venable, Chapel Hill, N. C.; D, Storm Bull, Madison, Wis.; E, Joseph F. Whitteaves, Ottawa, Canada; F, Simon H. Gage, Ithaca, N. Y.; G, Charles R. Barnes, Chicago,

Ill.; H. Thomas Wilson, Washington city; and I. Marcus Benjamin, Washington city. Permanent secretary, Leland O. Howard, Washington city. General secretary, Frederick Bedell, Ithaca, N. Y. Secretary of the council, Charles Baskerville, Chapel Hill, N. C. Secretaries of the sections: A, John F. Hayford, Washington city; B, William Hallock, New York city; C, Henry A. Weber, Columbus, Ohio; D, James M. Porter, Easton, Pa.; E, Arthur Hollick, New York city; F, Charles L. Marlatt, Washington city, in place of Frederick W. True; G, William A. Kellerman, Columbus, Ohio; H, Edward W. Scripture, New Haven, Conn.; I, Calvin M. Woodward, St. Louis, Mo. Treasurer, Robert S. Woodward, New York city.

Opening Proceedings.—The usual regular preliminary meeting of the council with which the association begins its sessions was held in the Chittenden Hotel on Aug. 20, at noon. At this session the final details pertaining to the arrangements of the meeting were settled, and the reports of the local committees acted on. The names of 55 applicants for membership were favorably considered, which number, together with 26 names acted on at meetings of the council held in New York city on Dec. 27, 1898, and in Washington city on April 23, 1899, brought the total membership up to 1810. The general session with which the public meeting began was held in the chapel of the Ohio State University at 10 A. M., on Aug. 21. The meeting was called to order by the retiring president, Frederic W. Putnam, of Cambridge, Mass., who said that "Columbus, as the capital of the great State of Ohio, was a fitting place for the American Association for the Advancement of Science to begin the second half of the century of its existence," and introduced Dr. Edward Orton as the presiding officer for the meeting. An address of welcome was made by Attorney-General Axline, representing Gov. Bushnell; also one on behalf of Mayor Swartz was presented by Judge Earnhart. President Thompson welcomed the association on behalf of the university. He said: "The Ohio State University is exceedingly happy in the privilege of extending a welcome to you, not only in her own name, but in the name of all these institutions which are to do so much in the future for industrial and scientific education in the great West. We recognize in this association a body of men devoted to the study of science and scientific education. We trust that your stay with us will assure you that the Ohio State University proposes to prove her right to existence by ministering to the needs of the people, and by presenting to them an open opportunity to the best that modern education can supply."

In behalf of the association President Orton returned cordial thanks for the welcome given. In the course of his remarks he described the great geographical range of the association, saying: "It transcends not only all State limits, but national boundaries as well. An organization that represents the United States takes in a respectable part of the land areas of the planet, but this is not merely a United States organization. It especially includes that potent and ambitious neighbor of ours to the northward, that owns more than 3,000,000 square miles, or a full half of the North American continent. Our name is broad enough to include also our neighbors to the southward, Mexico and the Central American republics." In referring to the work of the association, he said: "Its very title indicates that the work is incomplete, that it is still in progress. Its founders fifty years ago

clearly saw that they were in the early morning of a growing day. The most unexpected and marvelous progress has been made since that date, but as yet there is no occasion and no prospect of occasion to modify the title. We are still laboring for the advancement of science, for the discovery of new truth. The field, which is the world, was never so white to the harvest as now, but it is still early morning on the dial of science. Our contributions to the advancement of science are often fragmentary and devoid of special interest to the outside world. But every one of them has a place in the great temple of knowledge, and the wise master builders, some of whom appear in every generation, will find them all and use them all at last, and then only will their true value come to light."

The usual announcements were then made, after which the session was adjourned.

Address of the Retiring President.—The association met again in the auditorium of the Board of Trade on Monday evening to listen to the retiring address of President Putnam, who since 1886 has held the chair of American Archaeology and Ethnology in Harvard University, and has also been the curator of the department of anthropology at the American Museum of Natural History in New York city since 1894. The subject of his address was A Problem in American Anthropology. In opening he referred to the recent death of Daniel G. Brinton, a past president, saying, "By his death American anthropology has suffered a serious loss, and a great scholar and earnest worker has been taken from our association." Then, taking up his subject proper, he said: "We are still disputing the evidence furnished by craniology, by social institutions, and by language in relation to the unity or diversity of the existing American tribes and their predecessors on this continent." He discussed at length the paper read before the association in 1857 by James D. Dana on Thoughts on Species, and then one by Sir Daniel Wilson, and finally one by Lewis H. Morgan, in each of which the assumed unity of the American race was held. He also showed that Edward J. Payne, in his recent History of the New World called America, likewise expressed his belief in the antiquity and unity of the American tribes. Then, taking up the subject of craniology, he described the methods of studying skulls, and claimed that "the many differing characteristics exhibited in a large collection of crania, brought together from various portions of America, north and south, are reducible to several great groups. These may be generally classed as the Eskimo type, the northern and central or so-called Indian type, the northwestern brachycephalic type, the southwestern dolichocephalic type, the Toltec brachycephalic type, and the Antillean type, with probably the ancient Brazilian, the Fuegian, and the pre-Inca types of South America. Each of these types is found in its purity in a certain limited region, while in other regions it is more or less modified by admixture. Thus the Toltec or ancient Mexican type (which, united with the Peruvian, was separated as the Toltec family even by Morgan) occurs, more or less modified by admixture, in the ancient and modern pueblos and in the ancient earthworks of our central and southern valleys. In Peru, more in modern than in ancient times, there is an admixture of two principal types. At the north of the continent we again find certain traits that possibly indicate a mixture of the Eskimo with the early coast peoples both on the Pacific and on the Atlantic sides of the continent. The

north-central Indian type seems to have extended across the continent and to have branched in all directions, while a similar, but not so extensive branching, northeast and south, seems to have been the course of the Toltec type." This led up to an expression of his belief that "the American continent has been peopled at different times and from various sources; that in the great lapse of time since the different immigrants reached the continent there has been in many places an admixture of the several stocks and a modification of the arts and customs of all, while natural environment has had a great influence upon the ethnic development of each group." The reasons for this belief were then given in detail, and included a discussion of the "mound builders." Concerning these he showed the universality of such mounds, and said that "the earth mounds, like the shell mounds, were made by many peoples and at various times." He then said: "That man was on the American continent in Quaternary times, and possibly still earlier, seems to me as certain as that he was in the Old World during the same period. The Calaveras skull, that bone of contention, is not the only evidence of his early occupation of the Pacific coast. On the Atlantic side the recent extensive explorations of the glacial and immediately following deposits at Trenton are confirmatory of the occupation of the Delaware valley during the closing centuries of the glacial period, and possibly also of the interglacial time. The discoveries in Ohio, in Florida, and in various parts of Central and South America all go to prove man's antiquity in America. Admitting the great antiquity of one or more of the early groups of man on the continent, and that he spread widely over it while in the palæolithic and early neolithic stages of culture, I can not see any reason for doubting that there were also later accessions during neolithic times and even when social institutions were well advanced. While these culture epochs mark certain phases in the development of a people, they can not be considered as marking special periods of time. In America we certainly do not find that correlation with the Old-World periods which we are so wont to take for granted." He then paid a deserved tribute to the museums and expeditions through which material was being collected for study. In closing he said: "Anthropology is now a well-established science, and with all this wealth of materials and opportunities there can be no doubt that in time the anthropologists will be able to solve that problem which for the past half century has been discussed in this association—the problem of the unity or diversity of prehistoric man in America."

Proceedings of the Sections.—The association is divided into nine sections, each of which is presided over by an officer having the rank of vice-president of the association. Subsequent to the opening proceedings each section meets by itself and effects its organization by electing a fellow to represent it in the council, a sectional committee of three fellows, a fellow or member to the nominating committee, and a committee of three members or fellows to nominate officers of the section for the next meeting. As soon as this organization is effected the secretary of the section reports to the general secretary, who then provides him with a list of papers that, having been considered suitable by the council, may be read and discussed before the section. A press secretary, whose duties are to prepare abstracts of the papers read and to give them to reporters of newspapers, is also commonly chosen.

A. Mathematics and Astronomy.—The presiding officer of this section was Prof. Alexander Macfarlane, of Lehigh University, Bethlehem, Pa., who presented an address on The Fundamental Principles of Algebra.

In this paper he confined his discussion to the advances made in the present century, and began a description of the results that followed the recognition of the analogy between $\frac{d}{dx}$, the symbol of differentiation, and the ordinary symbol of algebra. The work of Peacock, who flourished in Cambridge from 1812 on, as well as the advances made by D. F. Gregory, a younger member of the Cambridge school of mathematics, were carefully considered. In chronological order followed references to Augustus de Morgan and to George Boole, both of whom were logicians as well as mathematicians. Much attention was devoted to the famous Sir William R. Hamilton, who did considerable in advancing mathematical science, and to whom we owe the method of quaternions. Grassmann and Hankel followed Hamilton, and their contributions received due consideration. Clifford, of whom so much was hoped, and who died too soon, was the next whose work was analyzed, and then the newer publications of Chrystal were discussed. The work of Whitehead, the most recent of writers on algebra, was then taken up. Dr. Macfarlane's conclusions were: "If the elements of a sum or of a product are independent of order, then the written order of the terms is different, and the product of two such sums is the sum of the partial products; but when the elements of a sum or of a product have a real order, then the written order of the elements must be preserved, though the manner of their association may be indifferent, and a power of a binomial is then different from a product. This applies whether the sum or product occurs simply or as the index of a base. Descartes wedded algebra to geometry; formalism tends to divorce them. The progress of mathematics within the century has been from formalism toward realism; and in the coming century, it may be predicted, symbolism will more and more give place to notation, conventions to principles, and loose extensions to rigorous generalizations."

The following-named papers were read and discussed before the section: Report on Progress in Non-Euclidean Geometry, by George B. Halsted; Report on Progress in the Theory of Linear Groups, by Leonard E. Dickson; The Aberration Constant from Observations of Polaris, by Asaph Hall, Jr.; Ancient Eclipses and Chronology, by Robert W. McFarland; Some Points in the Design of a Spectroscope, by H. C. Lord; Note on Grassmann's Proof that there can be but Two Kinds of Lineal Multiplication of Two Factors, by Joseph V. Collins; The Theory of Mathematical Inference, by G. J. Stokes; Recent Progress in Positional Astronomy, by John R. Eastman; Practical Astronomy during the First Half of the Present Century, by Truman H. Safford; Internal Forces that generate Stellar Atmospheres, by J. Woodbridge Davis; On the Commutators of a Group, by George A. Miller; and Linear Vector Functions, by S. Kimura.

On Aug. 24 this section met in joint session with Section B to listen to the following papers: Recent Progress in Theoretical Meteorology, by Cleveland Abbe; The Determination of the Nature of Electricity and Magnetism, including a Determination of the Density of the Ether, by Reginald A. Fessenden.

B. Physics.—This section was presided over by

Elihu Thomson, who is well known for his electrical inventions, most of which are controlled by the Thomson-Houston and General Electric Companies. His address was on The Field of Experimental Research. He said in part: "Physical research by experimental methods is both a broadening and a narrowing field. There are many gaps yet to be filled, data to be accumulated, measurements to be made with great precision, but the limits within which we must work are becoming at the same time more and more defined. It is but a few months since Prof. Dewar, by the evaporation of liquid hydrogen in a vacuum, closely approached, if he has not reached, our lower limit of possible temperature. We can imagine no limit to possible increase of temperature. While we may actually employ in electric furnaces temperatures which, according to Moissan, have a lower limit of 3,500° C., we can realize the possibility of temperatures existing in the stars measured by tens of thousands or hundreds of thousands of degrees of our temperature scale. It has been aptly said that many, and perhaps most, of the important discoveries have been made with comparatively simple and crude apparatus, yet it is probably true also that future advance work is likely to require more and more refined means and greater nicety of construction and adjustment of apparatus. In most fields of research, however, progress in the future will depend in an increasing degree upon the possession by the investigator of an appreciation of small details and magnitudes, together with a refined skill in manipulation or construction of apparatus." After reviewing the work on electric waves by Hertz, and the still more recent advances made by Marconi, he said: "Before leaving the consideration of this most fruitful field of experimental research opened by Hertz, it may be stated that the one gap in the work yet to be filled is the actual production of electric waves of a wave length corresponding to those of the spectrum. Despite the diligent studies which had been made in the invisible rays of the spectrum, both the ultrared and ultraviolet—a work far from completion as yet—the peculiar invisible radiation of the Crookes tube remained unknown until the work of Lenard and Röntgen brought it to the knowledge of the world. It is needless to recount the steps in the discovery of Röntgen rays. The diffusion which takes place when Röntgen rays pass through various media is another phenomenon which needs more attention from investigators. Again, our knowledge of the aurora is not as yet much more definite or precise than it is in regard to the obscure forms of lightning. Whether these phenomena will ever be brought within the field of research by experimental methods is an open question. We define our instruments; we render more trustworthy our means of observation; we extend our range of experimental inquiry, and thus lay the foundation for the future work, with the full knowledge that, although our researches can not extend beyond certain limits, the field itself is, even within those limits, inexhaustible."

The following-named papers were read and discussed before the section: Apparatus for the Demonstration of the Varying Currents in the Different Conductors of a Rotary Converter, by Frank C. Caldwell; A New Graphical Method of Constructing the Entropy-temperature Diagram from the Indicator Card of a Gas or Oil Engine, by Henry T. Eddy; Compound Harmonic Vibration of a String, by William Hallock; A New Form of Electrical Condenser having a Ca-

capacity capable of Continuous Adjustment, by Lyman J. Briggs; Time of Perception as a Measure of the Intensity of Light and Relations of Time and Space in Vision, by James McK. Cattell; The Musical Scales of the Arabs and Medieval Organ Pipes and their Bearing on the History of the Scale, by Charles K. Wead; An Absolute Determination of the E. M. F. of a Clark Cell, by Henry S. Carhart and Karl E. Guthe; Quantitative Investigation of the Coherer, by Augustus Trowbridge; Polarization and Polarization Capacity, by Karl E. Guthe and Martin D. Atkins; Current and Voltage Curves in the magnetically Blown Arc and in the Aluminum Electrolytic Cell, Some New Apparatus—Tachometer, Chronograph, Data Collector, Induction Coil, Balance for Standardizing Amperemeters, Standard of Induction, Location of Smokeless Discharge by Means of Colored Screens, Note on the Age of the Earth, and Measurement of Magnetism in Iron and the Relation between Permeability and Hysteresis, by Reginald A. Fessenden; Polarization and Internal Resistance of the Copper Voltmeter, by Burton E. Moore; Concerning the Fall of Potential at the Anode in a Geissler Tube, by Clarence A. Skinner; The Equipment and Facilities of the Office of United States Standard Weights and Measures for the Verification of Electrical Standard and Measuring Apparatus and An Experimental Test of the Accuracy of Ohm's Law, by Frank A. Wolff, Jr.; March Weather in the United States, etc., by Oliver L. Fassig; A New Spectrophotometer and a Method of Optically Calibrating the Slit and On Achromatic Polarization in Crystalline Combinations, by D. B. Brace; A Method for the Study of Phosphorescent Sulphides, by Fred E. Kester; Accidental Double Refraction in Colloids and Crystalloids, by Bruce V. Hill; A Bolometric Study of the Radiation of a Black Body between 600° and 1,100° C., by Charles E. Mendenhall; A Bolometric Study of the Radiation of an Absolute Black Body, by Frederick A. Saunders; On Thermodynamic Surfaces of P. V. T. for Solid, Liquid, and Gaseous State, by Francis E. Nipher; Optical Calibration of the Slit of a Spectrometer, by E. V. Capps; On Differential Dispersion in Double Refracting Media, by E. J. Rendtorff; Relations of Magnetization to the Modulus of Elasticity, by James S. Stevens; On the Escape of Gases from the Planets according to the Kinetic Theory and On Flutings in Kundt's Tube, by S. R. Cook; The Dielectric Strength of Oils and Some Unexpected Errors in Wattmeter Measurements, by Thomas Gray; Note on the Preparation of Reticles, by David P. Todd; Electrical Anæsthesia and The Nature of Spoken Vowels, with Reference to the Theories of Helmholtz and Hermann, by Edward W. Scripture; Pressure and Wave Length, by John F. Mohler; and The Attenuation of Sound and the Constant of Radiation of Air, by A. Wilmer Duff.

On Aug. 24 a joint session of Sections A and B was held, at which the papers mentioned under Section A were read.

C. *Chemistry*.—Prof. Frank P. Venable, who fills the chair of Chemistry in the University of North Carolina, Chapel Hill, N. C., presided over this section, and delivered an address on The Definition of the Element. He began by saying that "the conception of an element among the Greek philosophers and the earlier alchemists was very different from the modern idea." Then he followed with a historical outline of the development of the idea of the element. Closing that portion of his address with: "Thus the elements were recognized as simple bodies because there

were no simpler. They were not complex or compound. The distinction was clearly drawn between bodies simple and bodies compound, and the name simple body has been frequently used as a synonym for element through a large part of this century." Then, discussing the significance of the idea of atom, he made the following statement: "It is not possible for me, in the limits of this address, to array before you all of the various evidence which leads to the belief that our so-called elementary atoms are after all but compounds of an intimate, peculiar nature whose dissociation we have as yet been unable to accomplish. When properly marshalled, it gives a very staggering blow to the old faith. What would be attained if any one should succeed in decomposing an element by one of the usual methods? Successful decomposition should mean the discovery of a method which will decompose not one, but many or, indeed, all of the elements, and the decomposition of these must not yield a larger number of supposedly simple bodies, but a small group of one or two or three which are common constituents of all." His argument led to this conclusion: "Either these imagined simple bodies are after all compounds, built up of two or more common constituents, or they are but varying forms of one and the same kind of matter subjected to different influences and conditions." The closing portion of his address leaned toward the hypothesis that the elements are built up of two or more common constituents, which, he said, "has a larger number of supporters and would seem more plausible."

The following-named papers were presented before the section, the meetings of which were also attended by the members of the American Chemical Society: The Relation of Physical Chemistry to Technical Chemistry, by Wilder D. Bancroft; On the Constitution of Oxy azo-compounds, by William McPherson; The Nature of the Change from Violet to Green in Solutions of Chromium Salts, by Willis R. Whitney; Microstructure of Antimony-tin Alloys, by J. J. Kessler, Jr.; The Electrolytic Deposition of Metals from Non-aqueous Solutions, by Louis Kahlenberg; Some Experimental Illustrations of the Electrolytic Dissociation Theory, by Arthur A. Noyes; Methods of Analysis of Sulphite Solutions as used in Paper Making, by Rudolf De Roode; Improvement in the Chemical Composition of the Corn Kernel, by Cyril G. Hopkins; Some New Products of Maize Stalks, by Harvey W. Wiley and William H. Krug; Soil Humus, by E. F. Ladd; The Relation of Fertilizers to Soil Moistures, by Julius T. Willard; Secondary Heptylamine, by Thomas Clarke; Propane Trisulphonic Acid, by William B. Shober; On the Derivatives of Isocytive of Formhydroxamic Acid, and their Relation to Fulminic Acid, by H. C. Biddle; The Reichert Figure of Butter, by James H. Stebbins, Jr.; The Determination of Nickel in Nickel Steel, by George W. Sargent; Camphoric Acid, Alpha-hydroxy-dihydrocyclopentylidene Acid, and the Synthesis of Dimethyl-cyan-carbon-ethyl-cyclopentanone, by William A. Noyes and J. W. Shepherd; Diazo-Caffeine and The Preparation of the Tri-phenyl-chlor-methane and Tri-phenyl-carbinol, by M. Gomberg; The Action of Sodium Methylate upon the Dibromides of Propenyl Compounds and Unsaturated Ketones, by F. J. Pond; Some Secondary Cyclic Amines, by Curtis C. Howard; On Naphthalene-azo-alpha-naphthol and its Derivatives, by William McPherson and Robert Fischer; Esterification Experiments with Hexahydro- and Tetra-hydroxylic Acids, by William A.

Noyes; On the Condensation of Chloral with Ortho-, Meta-, and Para-nitranilines, Note on the Occurrence of Chromium, Titanium, and Vanadium in Peats, and On the Universal Distribution of Titanium, by Charles Baskerville; The Atomic Weight of Calcium, by Theodore W. Richards; Preliminary Report on a New Method for the Determination of Carbon Dioxide, by M. E. Hiltner; Analysis of Oils, by Augustus H. Gill; Examination of Lemon-flavoring Extracts, by A. S. Mitchell; The Composition of American and Foreign Dairy Salt, by Fritz W. Woll; Notes on Testing Soils for Application of Commercial Fertilizers, by Henry A. Weber; The Persulphates of Rubidium, Cesium, and Thallium, by Arnett R. Foster and Edgar F. Smith; The Chemical Composition of Butter Fat and The Chemistry of Rancidity in Butter Fat, by C. A. Browne, Jr.; Halides and Perhalides of the Picolines, by Paul Murrill; A Determination of the Transformation Point of Sodium Sulphate, by Arthur P. Saunders; Notes on the Estimation of Total Carbon in Iron and Steel, by Francis P. Dunnington; Electrolysis of Metallic Phosphate Solutions, by Harry M. Fernberger and Edgar F. Smith; The Action of Sodium Methylate upon the Dibromides of Propenyl Compounds and Unsaturated Ketones, by F. J. Pond, O. P. Maxwell, and G. M. Norman; On the Determination of Volatile Combustible Matter in Coke and Anthracite Coal, by Richard K. Meade and James C. Atkins; Observations upon Tungsten, by Edgar F. Smith; The Atomic Mass of Tungsten, by Willett L. Hardin; Notes on the Determination of Sulphur in Pig Iron, by M. J. Moore; An Electrolytic Study of Benzoin and Benzil, by Joseph H. James; The Quantitative Estimation of Boric Acid in Tourmaline, by George W. Sargent; Some Boiling-point Curves, by John K. Haywood; Electrolytic Determinations and Separations, by Lily G. Kollack; The Precipitation of Copper by Zinc, by John G. Shengle and Edgar F. Smith; Derivatives and Atomic Mass of Palladium, by Willett L. Hardin; Action of Hydrochloric-acid Gas upon Sulphates, Selenates, Tellurates, and Phosphates, by Raymond W. Tunnell and Edgar F. Smith; and The Electrolytic Oxidation of Succinic Acid, by Charles H. Clarke and Edgar F. Smith.

D. Mechanical Science and Engineering.—The presiding officer of this section was Prof. Storm Bull, who fills the chair of Steam Engineering in the University of Wisconsin, Madison, Wis. He addressed the section on Engineering Education as a Preliminary Training for Scientific-research Work. He said in part: "The object of scientific-research work is, as I understand it, to ascertain the facts of Nature, to correlate these facts, and, finally, to deduce the laws of Nature as illustrated by the facts discovered. It will be noticed that I divide scientific-research work into three parts, and I am sure that everybody will agree when I say that most of the scientific work done to-day is along the first line." These qualifications were discussed somewhat at length. He then said: "It is my contention that a man who has received a thorough engineering education, and perhaps has added a few years of professional work to scholastic training, is as well prepared to take up scientific-research work as any one coming from our universities and colleges." The education of an engineer was discussed by him, and he contended that "the ideal engineering education is first an academic course, followed by two or three years' work in the engineering college. A man educated as just indicated would certainly be better fitted for sci-

entific-research work than any other college graduate who had an equal amount of time for preparation, but had taken no engineering work." In conclusion he said: "I desire to repeat that we engineers, or semi-engineers, need to feel that our work is very often scientific-research work of the highest character, and that, although we are very often told that because of its practical nature it does not belong to pure science, yet we should insist that, whether it be pure science or not, it is scientific work."

The following-named papers were then presented before the section: Crystallization in Bronze Test Pieces, Support of Beams in Tests of Transverse Strength, and The Fracture of Spheres, by William T. Magruder; A New Exact Geographical Method for Designing Cone Pulleys, by Walter K. Palmer; Some Experiments on Combustion in Locomotive Boilers, by J. W. Shepherd; Some Engineering Experiences with Spanish Wrecks and Electric Mining of Bituminous Coal, by William S. Aldrich; The Illustration of Critical Speeds of Shafts, The Friction of Balls in Thrust Bearings, and The Fuel Value of Cereals, by Thomas Gray; and A Novel Method of Testing a Locomotive Boiler, by Frank C. Wagner.

On Aug. 23 a joint session was held with Section I, when a paper on Some Thermal Determinations in Heating and Ventilating Buildings, by Gilbert B. Morrison, was read and discussed.

E. Geology and Geography.—This section was presided over by Mr. Joseph F. Whiteaves, of the Geological Survey of Canada, who presented an address on The Devonian System in Canada. He showed at the outset that the existence of the Devonian as a distinct geological system was first indicated by Lonsdale, in 1837, on purely palæontological evidence, and subsequently confirmed by Sedgwick and Murchison, in 1839, on stratigraphical considerations. Having thus established the origin of the word Devonian, he passed to Canada, and said that "rocks of Devonian age have been discovered at various times in almost every province and district of the Dominion, and it is thought that a brief summary of the history of these discoveries and of the present state of our knowledge of the Devonian rocks of Canada, from a palæontologist's point of view, may be of interest on this occasion. In accordance with long usage in Canada, the line of demarcation between the Silurian and Devonian systems in this address will be drawn at the base of the Oriskany sandstone. It will also be convenient to consider the information that has so far been gained about the Devonian rocks of Canada in geographical order, from east to west, under the three following heads—namely, (1) the Maritime Provinces and Quebec, (2) Ontario and Keewatin, and (3) Manitoba and the Northwest Territories." Each of these geographical divisions was then taken up, and under subdivisions of the smaller provinces a summary of the descriptions of the formation in a chronological order was given, as well as a summary of the palæontological features of the formation.

The following-named papers were read and discussed before the section: The Geology of Columbus and Vicinity, by Edward Orton; Glacial Phenomena of Central Ohio, by Frank Leverett; Glacial and Modified Drift in Minneapolis, Minn., by Warren Upham; Lateral Erosion at the Mouth of Niagara Gorge, by G. Frederick Wright; The Geology of Ohnu, Hawaiian Islands, by Charles H. Hitchcock; Random: A Pre-Cambrian Upper-Algonkian Terrane, by Charles D. Walcott; The Petrographic Province of Fox

River Valley, Wisconsin, by William H. Hobbs and C. K. Leith, with analyses by William W. Daniels; Age and Development of the Cincinnati Anticline, by August F. Foerste; The Lower Devonian Aspect of the Lower Helderberg and Oriskany Formations, by Charles Schuchert; The Silurian-Devonian Boundary in North America, by Henry S. Williams; The Section at Schoharie, N. Y., by John J. Stevenson; The Ozarkian and its Significance in Theoretic Geology, by Joseph Le Conte; The Geological Results of the Indiana Coal Survey, by George H. Ashley; The Cape Fear Section in the Coastal Plain, by Joseph A. Holmes; The Occurrences of Corundum, by J. H. Pratt; Triassic Coal and Coke of Sonora, Mexico, by Edward T. Dumble; Some Geological Conditions favoring Water-power Developments in the South Atlantic Region, by Joseph A. Holmes; *Paropsonema*: A Peculiar Echinoderm from the Intumescens Fauna, New York, Remarkable Occurrences of Orthoceros in the Oneonta Sandstones of New York, and The Squaw Island "Water Biscuit," Canandaigua Lake, New York, by John M. Clarke; The Pre-Lafayette (Tennessean) Base Level, by W. J. McGee; The Relative Ages of the Maumee Glacial Lake and the Niagara Gorge, by Charles E. Slocum; The Galt Moraine and Associated Drainage, by Frank B. Taylor; Discovery of New Invertebrates in the Dinosaur Beds of Wyoming, by Erwin H. Barbour and Wilbur C. Knight; The Rapid Decline of Geyser Activity, by Erwin H. Barbour; The Pot Holes of Foster's Flats (now called Niagara Glen) on the Niagara River, by Miss Mary A. Fleming; and A Consideration of the Interpretation of Unusual Events in Geological Records, illustrated by Recent Examples, by Frederick W. Simonds.

On Aug. 22 the section met in joint session with the Geological Society of America. On Aug. 24 the entire section visited the gas fields near Lancaster, Ohio, where a display of natural gas was made under the direction of the Central Ohio Natural Gas and Fuel Company.

F. Zoölogy.—Prof. Simon H. Gage, of the biological department of Cornell University, Ithaca, N. Y., was the presiding officer of this section, and he chose as the subject of his address The Importance and the Promise in the Study of the Domestic Animals. After citing a number of pertinent illustrations, he said: "I have tried to show a few ways in which the study of domestic animals has thrown light on the problems confronting mankind in his social ideals, in preventive medicines, in physiology and hygiene, in embryology and comparative anatomy, and in the doctrine of the evolution of organic forms. The attempt has been made to show that, with the higher forms at least—that is, the forms most closely related to man, and with whose destiny his own economic, hygienic, and social relations are most closely interwoven—the domestic animals have in the past and promise in the future to serve the best purpose because of the abundance of the material in quite widely separated groups of animals which long have been and still are under greatly differing conditions and surroundings; and, finally, because this material is plentiful and under control, and thus may be studied throughout the entire life cycle." He also called attention to the fact that "there has been and still is too great a tendency in biology to study forms remote and inaccessible." As a final word he said: "However necessary and desirable it may have been in the past that the main energy of zoölogists should be employed in the description of new species and in the mak-

ing of fragmentary observations upon the habits, structure, and embryology of a multitude of forms, I firmly believe that necessity or even desirability has long since passed away, and that for the advancement of zoological science the work of surpassing importance confronting us is the thorough investigation of a few forms from the ovum to youth, maturity, and old age. And I also firmly believe that, whenever available, the greatest good to science, and thus to mankind, will result from a selection of domesticated forms for these thorough investigations."

The following-named papers were read and discussed before the section: On the Utility of Phosphorescence in Deep-sea Animals, by Charles C. Nutting; The Course of the Fibers in the Optic Chiasma of the Common American Toad (*Bufo lentiginosus*), by B. B. Myers; On *Reighardia*, a New Genus of Linguatulida, by Henry B. Ward; The Histogenesis of Muscle in the Metamorphosis of the Toad (*Bufo lentiginosus americanus*), by Benjamin F. Kingsbury; The Progenitors of Batrachians, by Theodore Gill; Observations on the Variation, Life History, and Habits of a Minute Locust (*Ectopoda maritima* Uhl. (1), by Herbert Osborn; A Chart for illustrating the Origin and Evolution of Animal and Vegetable Life, by A. D. Hopkins; Geographical Variations as illustrated by the Horned Larks of North America, by Harry C. Oberholser; On Some Piratine Bugs, which may be Responsible for So-called "Spider-bite" Cases, by Leland O. Howard; Cave Animals: Their Character, Origin, and their Evidence for or against the Transmission of Acquired Characters, by Carl H. Eigenmann; Have we more than a Single Species of *Blissus* in North America? by Francis M. Webster; Aestivation of *Epithragnomphora traskii* (Newcomb) in Southern California, by M. Burton Williamson; Natural Taxonomy of the Class Aves, by Robert W. Shufeldt; Notes on the Morphology of the Chick's Brain, by Susanna P. Gage; Further Notes on the Brook Lamprey (*Lampetra cilderti*), Respiration in Tadpoles of the Toad (*Bufo lentiginosus*), and Photographing Natural-history Specimens under Water or other Liquids with a Vertical Camera, by Simon H. Gage; A Discussion of *Aspidiotus cydoniae* and its Allies, by Charles L. Marlatt; and Effects of Hydrocyanic-acid Gas upon Animal Life and its Common Use, by Willis G. Johnson.

G. Botany.—The presiding officer of this section was Prof. Charles R. Barnes, who fills the chair of Plant Physiology in the University of Chicago, Chicago, Ill. The subject of his address was The Progress and Problems of Plant Physiology. He said in part: "It is only in comparatively recent years that plant physiology has become established upon a firm experimental basis, and thus fitted to take its proper place among the sciences offered in university curricula. Its real and vigorous growth has been measured by scarcely four decades." Prof. Barnes then discussed the chief features of plant physiology in which notable progress had been made during the last decade, under the headings of physical chemistry, physiological morphology, irritability, ecology, and cytology. This treatment he summarized in closing as follows: "The great advances in plant chemistry and physics, the progress in the investigation of causes of plant form, the widening ideas of the property of irritability, the investigation of the social relations of plants, and the minute study of cell action in spite of their diversity have one great end in view. This is nothing less than the solution of the great problem—the fundamental problem—of plant

physiology, as of animal physiology. The secret which we must discover, the dark recesses toward which we must focus all the light that can be obtained from every source, is the constitution of living matter. Intrenched within the apparently impregnable fortress of molecular structure this secret lies hid. The attacks upon it from the direction of physical chemistry and physiological morphology, of irritability, of ecology, and of cytology, are the concentrating attacks of various divisions of an army upon a citadel, some of whose outer defenses have already been captured. The innumerable observations are devised along parallel lines of approach, and each division of the army is creeping closer and closer to the inner defenses, which yet resist all attacks and hide the long-sought truth. We see yet no breach in the citadel. Here and there we seem to approach more closely, and at certain points are getting glimpses, through this loophole or that, of inner truths hidden before. It is not possible to prove to-day that life and death are only a difference in the chemical and physical behavior of certain compounds. It is safe to say that the future is likely to justify such an assertion. In the meanwhile we press forward along the whole line. Botany is more than ever full of meaning, because with its sister sciences it is no longer seeking things, but the reasons for things."

The following-named papers were read and discussed before the section: The Geotropism of the Hypocotyl of Cucurbits, by Edwin B. Copeland; The Destruction of Chlorophyll by Oxidizing Enzymes, by Albert F. Woods; The Effect of Hydrocyanic-acid Gas upon the Germination of Seeds, by Charles O. Townsend; Some Physiological Effects of Hydrocyanic-acid Gas upon Plants, by Willis G. Johnson; Aetiolative Reactions of *Sarracenia* and *Oxalis*, by William B. Stewart; The Mycorrhiza of *Tipularia*, by Julia B. Clifford; The Cultures of *Uredineae* in 1899, by Joseph C. Arthur; The Embryology of *Vaillantia hispida*, by Francis E. Lloyd; Division of the Megaspore of *Erythronium*, by John H. Schaffner; The Tamarack Swamp in Ohio and The Flora of Franklin County, Ohio, by Augustin D. Selby; The Fungous Infestations of Agricultural Soils in the United States, by Erwin F. Smith; The Occurrence of Calcium Oxalate and Lignin during the Differentiation of the Buds of *Prunus americana*, by Henry L. Bolley and L. R. Waldron; Two Diseases of *Juniperus*, by Hermann von Schrenk; The Crystals in *Datura stramonium* L., by Henry Kraener; The Fertilization of *Albugo blitti*, by Frank L. Stevens; The Embryo Sac of *Leucocrinum montanum*, by Francis Ramaley; Notes on Subterranean Organs, by A. S. Hitchcock; Some Monstrosities in Spikelets of *Eragrostis* and *Setaria*, with their Meaning, by William J. Beal; Are the Trees advancing or retreating upon the Nebraska Plains? One Thousand Miles for a Fern, and Studies of Vegetation of the High Nebraska Plains, by Charles E. Bessey; Useful Trees and Shrubs for the Northwest Plains of Canada and The Breeding of Apples for the Northwest Plains, by William Saunders; Field Experiments with "Nitragin" and other Germ Fertilizers, by Byron D. Halsted; The Duration of Bacterial Existence under Trial Environments, by Henry L. Bolley; Suggestions for a more Satisfactory Classification of the Pleurocarpous Mosses, by Abel J. Grout; Notes concerning the Study of Lichen Distribution in the Mississippi Valley, by Bruce Fink; Botanical Teaching in the Secondary Schools, by William C. Stevens; Botanical Teaching in the Secondary Schools, by Ida Clendenin; On the Occurrence of

the Black Rot of Cabbage in Europe, by H. A. Harding; A Summary of our Knowledge of the Fig, with Illustrations, by Walter T. Swingle; and The Classification of Botanical Publications, by William Trelease.

Columbus was the home of William S. Sullivant and Leo Lesquereux, the first and most famous bryologists, and on Aug. 23 the students of mosses and hepatics gathered to honor their name and fame. Their portraits were exhibited and their works were shown. Twelve North American mosses have been named for Sullivant, and specimens from these were loaned from the Sullivant collection belonging to the Gray Herbarium through the courtesy of Dr. Benjamin L. Robinson. Plates from Sullivant's *Icones* were exhibited with each species. The special exercises were as follow: William A. Kellerman read Dr. Asa Gray's tribute to Sullivant from the Supplement to the *Icones*; Mrs. Nathaniel L. Britton gave a brief account of the species named for Sullivant; Charles R. Barnes read a tribute to Leo Lesquereux from the *Botanical Gazette*; Lucien M. Underwood gave a brief outline of the progress in the study of the hepatics, illustrated by books and pamphlets; the plates illustrating twelve new species of hepatics from California, described by M. A. Howe, were exhibited, and the specimens shown by F. E. Lloyd; Prof. Earle read Some Notes on the Moss Flora of Alabama, by Dr. Charles Mohr; Mrs. Britton gave a brief historical record of the study of mosses, illustrated by books and pamphlets; Abel J. Grout presented some suggestions for a more satisfactory classification of the pleurocarpous mosses, and exhibited a set of his revisions of Pleurocarpous genera, also a set of *The Bryologist*; George N. Best exhibited a set of his publications and a summary of his work; William A. Kellerman exhibited a set of drawings and mosses formerly the property of Mr. Schrader, who made the drawings for Sullivant's *Icones*; Mrs. Britton and Prof. Underwood exhibited a set of 45 photographs of American students and collectors whose names are perpetuated in those of American mosses; Mrs. Britton showed a set of maps with starred regions where collections had been made, and lists of the names of collectors; reports were received from the Sullivant moss chapter, with a list of members from the secretary, Mrs. Annie M. Smith, and also a list of the species of mosses named by Sullivant; reports were received from Mr. McElwee, of the Philadelphia moss chapter, with lists of collections and books on mosses which may be found in the Academy of Natural Sciences of Philadelphia; and Arthur Hollick gave information as to the publication of the later work of Lesquereux.

H. Anthropology.—This section was presided over by Dr. Thomas Wilson, curator of prehistoric archaeology in the United States National Museum, Washington city. Dr. Wilson presented to the section an address on Beginnings of the Science of Prehistoric Anthropology. He said in part: "Up to the beginning of this century the science of prehistoric anthropology had been an unknown one. Prior to that time the origin of man and his first occupation of the earth had belonged either to history or else it was detailed in tradition. In 1806, in Denmark, the beginning of this science took place. The King organized a commission to investigate the surface of the earth in his kingdom. He appointed a zoologist, a geologist, and an archaeologist, and the three started over the work." After discussing the work in Denmark, he passed to a description of the Swiss lake dwellings, the

discovery of which at once stimulated a search for similar remains in other parts of Europe. From the discoveries of the dolmens by the commission in Denmark and from the works of the lake dwellers described by Kellar investigators soon came to the conclusion that there had been a prehistoric human existence, and thus the science of prehistoric anthropology was established on a firm basis. Dr. Wilson also described the development of a belief in the prehistoric origin of palæoliths, and mentioned the impetus given to the new science in 1859 by Darwin's publication of the origin of the species by evolution. Continuing his historical summary of the development of prehistoric anthropology, he referred to the international congresses that have been held since 1872, and alluded, as he reached his close, to the discovery in Java in 1894, by Dr. Dubois, of what he claimed was "a being midway between man and ape, and the missing link so often and long talked of."

The following-named papers were then read and discussed before the section: In Memoriam: Remarks on the late Daniel G. Brinton; The Beginnings of Mathematics, by W J McGee; Report of the Committee on the White Race in America, The Scientific Societies and Institutions of the United States, and New Anthropometric Methods, by J. McKeen Cattell; Researches in Experimental Phonetics, with Demonstration of Results, Inadequacy of the Present Tests for Color Blindness, with Demonstrations of a New Test, Observations on After-images and Cerebral Light, and Observations on the Economy of Sleep, by Edward W. Scripture; Regarding the Evidences of Ancient Prehistoric Man in the Maumee River Basin, by Charles E. Slocum; The Latest Discoveries of Traces of Glacial Man at Trenton, N. J., and the Light thrown upon them by a Comparative Study of the Gravels of the Delaware and Susquehanna Valleys, by G. Frederick Wright; Recollections of M. Boucher de Perthes, by Thomas Wilson; The Aboriginal Quarries and Shops at Mill Creek, Miami Co., Illinois, by William A. Phillips; The National Diatonic Scale: A Chapter of Musical History, by Charles K. Wead; A Comparative Study of the Physical Structure of the Labrador Eskimos and the New England Indians, by Frank Russell; The Cherokee River Cult, by James Mooney; Extent of Instruction in Anthropology in Europe and America, by George G. McCurdy; Allan Stevenson's Trance and Prehistoric Settlement, Big Kiokee Creek, Columbia Co., Georgia, by Robert Steiner; and Evolution, by Eliza T. Houk.

I. Social and Economic Science.—The presiding officer of this section was Dr. Marcus Benjamin, editor in the United States National Museum, Washington city. In accordance with a request made to Dr. Benjamin at the council meeting held in April, he delivered an historical address on The Early Presidents of the Association. This address began with a brief history of the formation of the association, in which it was shown that the organization was a development of the Association of American Geologists and Naturalists, which was founded in 1840, and which in turn had its beginning in the Geological Society founded in New Haven in 1819. The influence of the National Institute in Washington was also pointed out. Subsequently Dr. Benjamin gave brief but pointed biographies of the first 25 presidents. These included William C Redfield, whose theory of storms marked the beginning of the science of meteorology; Joseph Henry, the first secretary of the Smithsonian Institution, whose discoveries in physics made possible the

magnetic telegraph; Alexander D. Bache, superintendent of the United States Coast Survey; Louis Agassiz, famous as a teacher and as a naturalist; Benjamin Peirce, teacher of mathematics in Harvard University, who demonstrated the fluid constitution of the rings of Saturn; James D. Dana, noted for his text-books on mineralogy and geology; James Hall, paleontologist and State geologist of New York; Alexis Caswell, meteorologist and physicist, President of Brown University; Jacob W. Bailey, an early worker on infusoria with the microscope, teacher of science at West Point; Jeffries Wyman, the comparative anatomist of Harvard, a distinguished worker in American anthropology; Stephen Alexander, Professor of Astronomy in Princeton; Isaac Lea, the conchologist and student of unios; Frederick A. P. Barnard, physicist, educator, author, President of Columbia University; John S. Newberry, naturalist, State geologist of Ohio; Benjamin A. Gould, astronomer; John W. Foster, geologist, President of the Chicago Academy of Sciences; William Chauvenet, mathematician, President of Washington University, St. Louis; T. Sterry Hunt, of the Canadian Geological Survey; Asa Gray, botanist, author of botanical text-books; J. Lawrence Smith, chemist and mineralogist; Joseph Lovering, physicist, long a teacher in Harvard; John L. Le Conte, entomologist; Julius E. Hilgard, physicist, superintendent of the Coast Survey; and William B. Rogers, founder of the Massachusetts Institute of Technology. Dr. Benjamin's address was illustrated with portraits of all the presidents of the American Association.

The following-named papers were read and discussed: Natural Distribution as modified by Modern Agriculture, by John Hyde; Federal Guarantees for maintaining Republican Government in the States, by Cora A. Benneson; Calculations of Population in June, 1900, by Henry Farquhar; Power of the Consumer economically Considered, by Florence Kelley; The Basis of War and Peace, by Michael A. Clancy; The Increase in the Median Age of the Population of the United States since 1850, by Mansfield Merriam; Trusts: A Study in Industrial Evolution and The Spoils System in Theory and Practice, by Harry T. Newcomb; Moral Tendencies of Existing Social Conditions, by Washington Gladden; Hysterisis in Social, Economic, and Vital Phenomena, by Reginald A. Fessenden; Defective Vision of School Children, by A. G. Field; Science and Art in Social Development, by John S. Clark; The Personal Equation as a Psychological Factor, by Laura O. Talbott; Positive Science and Methods in Education, by Mrs. Daniel Folkmar; Some New Aspects of Educational Thought, by Thomas M. Balliet; and The Manual Element in Education, by Calvin M. Woodward.

On Aug. 23 this section met in joint session with Section D to listen to the paper by Gilbert B. Morrison mentioned under Section D.

Affiliated Organizations.—Other scientific bodies, taking advantage of the gathering of so many members at the meeting of the American Association, have adopted the practice of holding meetings at the same place and contemporaneous with the American Association, but at such hours as not to interfere with the regular sessions of the larger body. The American Microscopical Society held its twenty-first annual meeting on Aug. 17, 18, and 19, with William C. Krauss, of Buffalo, N. Y., as president, and Henry B. Ward, of Lincoln, Neb., as secretary. Sixteen or more papers were read, and at the close of the meeting Albert M. Bleile, of Colum-

bus, Ohio, was chosen president. The Society for the Promotion of Engineering Education held its sixth annual meeting on Aug. 17, 18, and 19, with John B. Johnson, of St. Louis, Mo., as president, and Albert Kingsbury, of Durham, N. H., as secretary. A number of papers were read, and the election resulted in the selection of Ira O. Baker, of Mason, Ill., as president. The Botanical Society of America held its fifth annual meeting on Aug. 18 and 19, with Lucien M. Underwood, of New York city, as president, and George F. Atkinson, of Ithaca, N. Y., as secretary. Five papers were read in full and several by title. The president of last year, Dr. Nathaniel L. Britton, delivered his retiring address on Report of Progress of Development of the New York Botanical Garden. Prof. Benjamin L. Robinson, of Harvard University, was chosen president for the ensuing year, and Secretary Atkinson continued in office. The eleventh annual meeting of the Association of Economic Entomologists was held on Aug. 18 and 19, with Charles L. Marlatt, of Washington city, as president, and Archie H. Kirkland, of Malden, Mass., as secretary. A number of papers were read, and for the ensuing year Laurence Bruner, of Lincoln, Neb., was chosen president, while the secretary remained unchanged. Simultaneously the Society for the Promotion of Agricultural Science held its meetings, and its final sessions were held jointly with those of the entomologists. Byron D. Halsted, of New Brunswick, N. J., was its president, and Charles S. Plumb, of Lafayette, Ind., its secretary. For the ensuing year William T. Beal, of Lansing, Mich., was chosen president, and Thomas F. Hunt, of Columbus, Ohio, as secretary. The American Chemical Society held its nineteenth general meeting in conjunction with Section C of the American Association. Its president is Edward W. Morley, of Columbus, Ohio, and its secretary, Albert C. Hale, of Brooklyn, N. Y. Nearly one hundred members were registered as present. The Geological Society of America, of which Benjamin K. Emerson, of Amherst, Mass., is president, and Herman L. Fairchild, of Rochester, N. Y., is secretary, met in joint session with Section E. The papers read by the members, both of the chemical and geological societies, are incorporated with the list given under Sections C and E. The second summer meeting of the American Forestry Association was held on Aug. 22 and 23, with James Wilson, of Washington city, as president, and George P. Whittlesey, of Washington city, as secretary. The American Mathematical Society, of which Albert S. Woodward is president, and F. N. Cole, secretary, both of New York city, met on Aug. 25 and 26. The Botanical Club of the association, of which Byron D. Halsted, of New Brunswick, N. J., is president, and Augustus D. Selby, of Wooster, Ohio, secretary, met at intervals during the meeting, and twenty-seven papers were read and discussed before its members.

Final Session.—This was held on Aug. 25, when it was announced that a grant of \$50 was made to the Committee on the White Race in America for the establishment of an anthropometric laboratory. A second grant of \$50 was made for the quantitative study of biological variation under Dr. Charles B. Davenport, and to report and extend this work a committee was appointed, consisting of Drs. Boas, Cattell, Minot, Eigmann, and Davenport. The only other grant made for research was one of \$100 for the purpose of stocking pools with different species of blind vertebrates where they may be reared and studied in the light, the work being carried out

by Prof. Carl H. Eigenmann. Reports were made by the committees on the library, on standards of measurement, and on the United States Naval Observatory. Several committees that had accomplished the work for which they had been appointed were discharged. President Orton announced the gift of \$1,000 from Emerson McMillin, who is well known for his generous benefactions to science, and Mr. McMillin was elected a patron of the association. New amendments to the constitution were proposed by W J McGee, making the term of office of the treasurer five years, and by J. McKeen Cattell, adding a section of physiology and experimental medicine. Section A was given permission to arrange for a joint meeting with the American Mathematical Society. Also Section H was authorized to hold a winter session at such place as the sectional committee should decide, and an appropriation not exceeding \$25 from the current funds was allowed such section to cover the expenses of printing.

The usual resolutions of thanks were proposed by a committee and presented by Past-President Thomas C. Mendenhall.

The attendance was 352 members and associates, which gives the Columbus meeting the rank of 15 among the 48 meetings thus far held. There were 273 papers presented before the association, distributed as follow: Section A, 14; B, 40; C, 55; D, 15; E, 33; F, 19; G, 33 (Botanical Club, 27); H, 20, and I, 17.

The treasurer's report showed a gratifying increase in the funds of the association. In addition to the income derived from investment, the permanent secretary was able to turn over to the treasurer \$1,000 derived from membership fees to be added to the permanent fund.

The Next Meeting. Invitations were received from Ithaca, N. Y., Philadelphia, Pa., Saratoga Springs, N. Y., New York city, Niagara Falls, N. Y., Jacksonville, Fla., and Denver, Col. It was decided to meet in New York city during the week of June 25-30, at Columbia University. It was urged that, as a large number of the members would be going to the Paris Exposition or for travel in other parts of Europe, it would be of the greatest convenience for them to meet in the metropolis. The following officers were chosen: President, Robert S. Woodward, Columbia University, New York city. Vice-presidents of sections: A, Asaph Hall, Jr., University of Michigan, Ann Arbor, Mich.; B, Ernest Merritt, Cornell University, Ithaca, N. Y.; C, James Lewis Howe, Washington and Lee University, Lexington, Va.; D, John A. Brashear, Pittsburg, Pa.; E, James F. Kemp, Columbia University, New York city; F, Charles B. Davenport, Harvard University, Cambridge, Mass.; G, William Trelease, Shaw's Botanical Garden, St. Louis, Mo.; H, Amos W. Butler, Indianapolis University, Indianapolis, Ind.; I, Calvin M. Woodward, Washington University, St. Louis, Mo. Permanent secretary, Leland O. Howard, Cosmos Club, Washington city. General secretary, Charles Baskerville, University of North Carolina, Chapel Hill, N. C. Secretary of the council, William Hallock, Columbia University, New York city. Secretaries of the sections: A, Wendell M. Strong, Yale University, New Haven, Conn.; B, Reginald A. Fessenden, Western University of Pennsylvania, Alleghany, Pa.; C, Arthur A. Noyes, Massachusetts Institute of Technology, Boston, Mass.; D, William T. Magruder, Ohio State University, Columbus, Ohio; E, Joseph A. Holmes, University of North Carolina, Chapel Hill, N. C.; F, Carl H. Eigenmann, Indiana University, Bloom-

ington, Ind.; G, Daniel T. MacDougal, Columbia University, New York city; H, Frank Russell, Harvard University, Cambridge, Mass.; I, Harry T. Newcomb, Census Bureau, Washington city. Treasurer, Robert S. Woodward, Columbia University, New York city.

British.—The sixty-ninth annual meeting of the British Association for the Advancement of Science was held in Dover, Sept. 13-20. The officers were: President, Sir Michael Foster.

SIR MICHAEL FOSTER.

Section presidents: A, Mathematics and Physics, John H. Poynting; B, Chemistry, Horace T. Brown; C, Geology, Sir Archibald Geikie; D, Zoology, Adam Sedgwick; E, Geography, John Murray; F, Economic Science and Statistics, Henry Higgs; G, Mechanical Science, Sir William H. White; H, Anthropology, Charles H. Read; I, Physiology, John N. Langley; K, Botany, Sir George King. General treasurer, Carey Foster. General secretaries, Edward A. Schäfer and William C. Roberts-Austen. Assistant general secretary, G. Griffith, College Road, Harrow.

General Meeting.—The association began its proceedings with a meeting of the general committee on Sept. 13, presided over by Sir Archibald Geikie, when the report of the council for the year 1898-'99 was presented. In this it was suggested that the meeting this year would be memorable from the fact that for the first time in the history of the association the time and place of meeting had been fixed in conjunction with and in response to an invitation of the French Association for the Advancement of Science, with the object of affording an opportunity for the members of the sister associations to exchange visits and to participate in scientific discussions. The death of Past-President Sir Douglas Galton was mentioned, and it was reported that Sir William Crookes had been nominated as a delegate to represent the association at the jubilee of Sir George Gabriel Stokes, and that he presented an address on that occasion. The various resolutions referred to the general committee by the council were acted upon, notably one authorizing the council to make a grant of £1,000 out of the accumulated fund of the association to the national antarctic expedition. It was reported that satisfactory arrangements

had been made with the British Museum for the establishment of a bureau for ethnology. The treasurer reported that the total receipts for the year were £5,083, and the total expenditure £1,430. The annual subscriptions amounted to £800, and the sale of the associates' tickets realized £1,028, and of ladies' tickets £639. The usual vote of thanks was adopted for the retiring president, Sir William Crookes, concerning whom it was said that, while the presidential addresses were often valuable contributions to the literature of science, it was seldom that one of them held the public interest and attention so closely and so long as the address delivered by Sir William Crookes last year had done. In the evening the association met in the town hall of Dover for the purpose of listening to the inaugural address of the president. The retiring president, Sir William Crookes, introduced his successor with the following words: "To abdicate is not usually considered the height of human felicity; but when I consider how admirably fitted my successor is to sit in the president's chair, I can assure you abdication becomes a positive pleasure. Sir Michael Foster can have no good wishes more eager and sincere than mine, but I must wish him something special for the sake of his peace of mind, his time, and his credit. May he escape the dilemma that has befallen me! I trust his year of office may not be checkered by the necessity of writing a book to defend the sanity of his address."

Sir Michael Foster has held the chair of Physiology at Cambridge since 1893, and his scientific attainments have recently been recognized by the Queen, who knighted him. Also, he is secretary of the Royal Society.

Inaugural Address of the President.—In beginning his address Sir Michael Foster paid a well-deserved tribute to Sir Douglas Galton, who presided at the Ipswich meeting in 1895, and who died during the year, referring especially to the earnest efforts made by the deceased scientist toward securing the foundation of a national establishment for the prosecution of prolonged and costly physical researches. He said: "The National Physical Laboratory has been founded," and expressed his regret that Sir Douglas "was not spared to see the formal completion of the scheme whose birth he did so much to help, and which, to his last days, he aided in more ways than one." Then, contrasting the scientific conditions in 1799 with those of to-day, he said: "In the year 1799 the knowledge of oxygen, of the nature of water and of air, and, indeed, the true conception of chemical composition and chemical change, was hardly more than beginning to be, and the century had to pass wholly away before the next great chemical idea, which we know by the name of the atomic theory of John Dalton, was made known." Concerning electricity, which he called the "bright child of the nineteenth century," he told of the crude knowledge of its properties that existed a century ago, and how we were to-day proud, and justly proud, both of the material triumphs and of the intellectual gains which it has brought us, and we are full of even larger hopes of it in the future. "In 1799," he said, "the science of geology, as we now know it, was struggling into birth." Since then "its practical lessons have brought wealth to many, its fairy tales have brought delight to more, and round it hovers the charm of danger, for the conclusions to which it leads touch on the nature of man's beginning." After describing the knowledge of biology in 1799, he said: "To-day the merest beginner in

biologic study is aware that every living being, even man himself, begins its independent existence as a tiny ball, of which we can, even acknowledging to the full the limits of the optical analysis at our command, assert with confidence that in structure, using that word in its ordinary sense, it is in all cases absolutely simple. It is equally well known that the features of form which supply the characters of a grown-up living being, all the many and varied features of even the most complex organism, are reached as the goal of a road, at times a long road, of successive changes; that the life of every being, from the ovum to its full estate, is a series of shifting scenes, which come and go, sometimes changing abruptly, sometimes melting the one into the other, like dissolving views, all so ordained that often the final shape with which the creature seems to begin, or is said to begin, its life in the world is the outcome of many shapes, clothed with which it in turn has lived many lives before its seeming birth. If we wish to measure how far off in biologic thought the end of the last century stands, not only from the end but even from the middle of this one, we may imagine Darwin striving to write the *Origin of Species* in 1799. We may fancy him being told by philosophers how one group of living beings differed from another group because all its members and all their ancestors came into existence at one stroke when the first-born progenitor of the race, within which all the rest were folded up, stood forth as the result of the creative act. We may fancy him listening to a debate between the philosopher who maintained that all the fossils strewn in the earth were the remains of animals or plants churned up in the turmoil of a violent universal flood, and dropped in their places as the waters went away, and him who argued that such were not really the 'spoils of living creatures,' but the product of some playful plastic power which out of the superabundance of its energy fashioned here and there the lifeless earth into forms which imitated, but only imitated, those of living things. Could he amid such surroundings by any flight of genius have beat his way to the conception for which his name will ever be known?" This portion of his address concluded with: "I am content to have pointed out that the two great sciences of chemistry and geology took their birth, or at least began to stand alone, at the close of the last century, and have grown to be what we know them now within about a hundred years, and that the study of living beings within the same time has been so transformed as to be to-day wholly different from what it was in 1799. Not only have the few driven far back round the full circle of natural knowledge the dark clouds of the unknown which wrap us all about, but also the many walk in the zone of light thus increasingly gained. The span between the science of that time and the science of to-day is beyond all question a great stride onward." Of the man of science he said: "He is not creative like the poet or artist, but he is created. His work, however great it be, is not wholly his own: it is in part the outcome of the work of men who have gone before. Again and again a conception which has made a name great has come not so much by the man's own effort as out of the fullness of time. From the mouth of the man of old the idea dropped barren, fruitless; the world was not ready for it, and heeded it not; the concomitant and abutting truths which could give it power to work were wanting. Coming back again in later days, the same idea found the world awaiting it; things

were in travail preparing for it; and some one, seizing the right moment to put it forth again, leaped into fame. It is not so much the men of science who make science as some spirit which, born of the truths already won, drives the man of science onward, and uses him to win new truths in turn." Concerning results, he continued: "The material good which mankind has gained and is gaining through the advance of science is so imposing as to be obvious to every one, and the praises of this aspect of science are to be found in the mouths of all. Beyond all doubt science has greatly lessened and has markedly narrowed hardship and suffering; beyond all doubt science has largely increased and has widely diffused ease and comfort. The features of the fruitful scientific mind are in the main three: In the first place, the seeker after truth must himself be truthful, truthful with the truthfulness of Nature. In the second place, he must be alert of mind. In the third place, scientific inquiry, though it be pre-eminently an intellectual effort, has need of the moral quality of courage. In no branch of science during these later years has there been greater activity and more rapid progress than in that which furnishes the means by which man brings death, suffering, and disaster on his fellow-men." The brotherhood of science was referred to, and he told how the "great need of mutual knowledge and of common action felt by men of science of different lands is being manifested in a special way. In almost every science inquirers from many lands now gather together at stated intervals in international congresses to discuss matters which they have in common at heart, and go away each one feeling strengthened by having met his brother." In closing he said: "Looking back, then, in this last year of the eighteen hundreds, on the century which is drawing to its close, while we may see in the history of scientific inquiry much which, telling the man of science of his shortcomings and his weakness, bids him be humble, we also see much, perhaps more, which gives him hope. The past points not to itself, but to the future; the golden age is in front of us, not behind us; that which we do know is a lamp whose brightest beams are shed into the unknown before us, showing us how much there is in front and lighting up the way to reach it. We are confident in the advance because, as each one of us feels that any step forward which he may make is not ordered by himself alone, and is not the result of his own sole efforts in the present, but is, and that in large measure, the outcome of the labors of others in the past, so each one of us has the sure and certain hope that as the past has helped him, so his efforts, be they great or be they small, will be a help to those to come."

Proceedings of the Sections. *A. Mathematics and Physics.*—This section was presided over by John H. Poynting, Professor of Physics in Mason College, Birmingham. His address began with a reference to the establishment of the National Physical Laboratory, of which he said "it was absolutely necessary for the due progress of physical research in this country." He then discussed the methods of investigation as practiced by the physicist, saying: "His method consists in finding out all likenesses, in classing together all similar events, and so giving an account as concise as possible of the motions and changes observed. His success in the search for likenesses and his striving after conciseness of description lead him to imagine such a constitution of things that likenesses exist

even where they elude his observation, and he is thus enabled to simplify his classification on the assumption that the constitution thus imagined is a reality. He is enabled to predict, on the assumption that the likenesses of the future will be the likenesses of the past. A portion of his address was devoted to a description of the various "hypotheses as to the constitution of matter and the connecting ether." Finally, he referred to the limitations of the physical method, saying: "The discussion of the physical method, with its descriptive laws and explanations and its hypothetical extension of description, leads us on to the consideration of the limitation of its range. The method was developed in the study of matter which we describe as nonliving, and with nonliving matter the method has sufficed for the particular purposes of the physicist." His closing sentences were: "If we have full confidence in the descriptive method, as applied to living and nonliving matter, it appears to me that up to the present it teaches us that, while in nonliving matter we can always find similarities, while each event is like other events, actual or imagined, in a living being there are always dissimilarities. Taking the psychical view—the only view which we really do at present take—in the living being there is always some individuality, something different from any other living being, and full prediction in the physical sense and by physical methods is impossible. If this be true, the loom of Nature is weaving a pattern with no mere geometrical design. The threads of life, coming in we know not where, now twining together, now dividing, are weaving patterns of their own, ever increasing in intricacy, ever gaining in beauty."

Subsequently the following-named papers were read and discussed before the section: *Spectroscopic Examination of Contrast Phenomena*, by G. J. Burch; *Variation of the Specific Heat of Water*, by Hugh L. Callendar and H. T. Barnes; *Results of Experiments on the Expansion of Porcelain with Rise of Temperature*, by T. G. Bedford; *On the Energy in a Turbulent Liquid transmitting Lamina Waves*, by George F. Fitzgerald; *Permanence of Certain Gases in the Atmospheres of Planets*, by G. H. Bryan; *The Thermo-electric Properties of Some Iron Alloys*, by W. F. Barrett; *On the Production in Rarefied Gases of Luminous Rings in Rotation about Lines of Magnetic Force*, by C. E. S. Phillips; *A Note on Deep-sea Waves*, by Vaughan Cornish; *Existence of Masses Smaller than Atoms*, by Joseph J. Thomson; *A Short Account of the Controversy regarding the Seat of Volta's Contact Force*, by Oliver J. Lodge; *Sun Spots and Temperature*, by Dr. Van Rijckevorsel; *Seismology in Mauritius*, by J. F. Claxton; *An Account of the Work done at the Blue Hill Meteorological Observatory*, by A. Lawrence Rotch, of Boston, Mass., U. S. A.; *A Description of the Hydro-aërograph*, by F. Napier Denison; *Rainfall of the Southeastern Countries of England*, by John Hopkinson; *Description of a Gravity Balance*, by Henry S. Threlfall; *Platinum Thermometry*, by Hugh L. Callendar; *An Account of the Recent Magnetic Work in the United States and Canada*, by Louis A. Bauer, of Washington city, U. S. A.; *Special Sensitiveness of Mercury Vapor in an Atmosphere of Hydrogen, and its Influence on the Spectrum of the Latter*, by E. Percival Louis; *The Theory of Electrolytic Solution Pressure*, by Robert A. Lehfeldt; and *Temperature and Dispersion in Quartz and Iceland Spar*, by J. William Gifford.

Also the following reports: Report on the Methods of determining Magnetic Force at Sea, Report of the Committee on Electrolysis and Electro-chemistry, Report of the Committee on the Heat of Combination of Metals in the Formation of Alloys, Report of the Committee on Radiation from a Source of Light in a Magnetic Field, Report of the Committee on Solar Radiation, Report of the Committee on Seismological Investigations, Report of the Committee on Ben Nevis Observatory, Report of the Committee on Meteorological Photography, and Report of the Committee on Electric Standards, were presented and discussed.

B. Chemistry.—The presiding officer of this section was Dr. Horace T. Brown, F.R.S., of South Kensington, England. He said: "The subject which I have chosen for my address is the fixation of carbon by plants, one which is the common meeting ground of chemistry, physics, and biology. We have become so accustomed to the idea that the higher plants derive the whole of their carbon from atmospheric sources that we are apt to forget how very indirect is the nature of much of the experimental evidence on which this belief is founded. There can be no doubt that the primary source of the organic carbon of the soil, and of the plants growing on it, is the atmosphere; but of late years there has been such an accumulation of evidence tending to show that the higher plants are capable of being nourished by the direct application of a great variety of ready-formed organic compounds that we are justified in demanding further proof that the stores of organic substances in the soil must necessarily be oxidized down to the lowest possible point before their carbon is once more in a fit state to be assimilated." Then he "indulged in a little historical retrospect," and described the work of Priestley, Ingen-Housz, De Saussure, Bokorny, Acton, and the recent work of J. Laurent and Mazé. "These facts," he said, "justify what I have already said, that we ought to demand more direct evidence than is at present available before we accept the view that the majority of chlorophyllous plants take in the whole of their carbon from the atmosphere." The greater portion of his address was devoted to a description of the experimental work done by himself in the Jodrell Laboratory, at Kew. Conclusive results have not yet been obtained, and he concluded with: "When we have succeeded in finding some simple chemical means of fixing the initial products of the reduction of carbon dioxide, then, and then only, may we hopefully look forward to reproducing in the laboratory the first stages of the great synthetic process of Nature, on which the continuance of all life depends."

Subsequently the following-named papers were read and discussed: The Solidification of Hydrogen, by James Dewar; Oxidation in Presence of Iron, by H. J. H. Fenton; The Condensation of Glycollic Aldehyde, by H. J. H. Fenton and Henry Jackson; Some New Silicon Compounds obtained from Silicon Tetraphenylamine by Heating with Mustard Oil, by J. Emerson Reynolds; Water and Sewage Examination Results, by Samuel Rideal; The Place of Nitrates in the Biology of Sewage, by W. Scott Moncrieff; Excretory Products of Plants, by Prof. Hanriot; On the Nature of Symbiosis, by Marshall Ward; Note sur les Fermentations Symbiotiques Industrielles, by A. Calmette; Symbiotic Fermentation: Its Chemical Aspects, by Henry E. Armstrong; Proposed International Committee on Atomic Weight, by Frank W. Clarke, Washington city,

U. S. A.; The Development of Chemistry in the Last Fifteen Years, by A. Ladenburg; The Influence of Solvents upon the Optical Activity of Organic Compounds and A Method for resolving Racemic Oximes into their optically Active Components, by W. J. Pope; The Chemical Effect on Agricultural Soils of the Salt-water Flood of Nov. 29, 1897, on the East Coast, by Thomas S. Dymond; Phenomena connected with the Drying of Colloids: Mineral and Organic, by John H. Gladstone and Walter Hibbert; Action of Light upon Metallic Silver, by John Spiller; Influence of Acids and of Some Salts on the Saccharification of Starch by Malt Diastase, by A. Fernbach; A Note on the Combined Action of Diastase and Yeast on Starch Granules, by G. Harris Morris; Action of Hydrogen Peroxide on Carbohydrates in the Presence of Iron Salts, by J. M. Crofts and R. S. Morrell; Influence of Substitution on Optical Activity in the Bornylamine Series and New Derivations from Camphor Oxime, by M. O. Foster; Investigations in the Formation of an Intermediate Compound in the Action of Caustic Soda in Benzaldehyde, by Charles A. Kohn and W. Tranton; On Some Experiments to obtain Definite Alloys of Cadmium, Zinc, and Magnesium with Platinum and Palladium, by W. R. Hodgkinson, Capt. Waring, and Capt. Desborough.

Also the following reports: Report of the Committee on the Relation between the Absorption Spectra and the Chemical Constitution of Organic Substances, Report of the Committee on Isomeric Naphthalene Derivations, Report on the Intermittent Bacterial Treatment of Raw Sewage in Coke Beds, and Report of the Committee on the Teaching of Natural Science in Elementary Schools, were presented before the section.

C. Geology.—The presiding officer of this section was Sir Archibald Geikie, director-general of the Geological Survey of the United Kingdom, a past president of the association. He said: "Among the many questions of great theoretical importance which have engaged the attention of geologists none has in late years awakened more interest or aroused livelier controversy than that which deals with time as an element in geological history. In offering a brief history of the discussion there is, I think, a practical outcome which may be made to issue from the controversy in a combination of sympathy and co-operation among geologists all over the world. A lasting service will be rendered to our science if by well-concerted effort we can place geological dynamics and geological chronology on a broader and firmer basis of actual experiment and measurement than has yet been laid." Then, beginning with James Hutton, the founder of modern geology, he discussed his theory on the age of the earth, together with those of Playfair and Lyell. Sir Archibald then took up Lord Kelvin's famous paper of 1862, in which he declared his belief that the age of our planet must be more than twenty million, but less than four hundred million years. Continuing, he discussed the more recent statements by Kelvin, as well as those by Huxley, Tait, and George Darwin. His own conclusions were: "So far as I have been able to form an opinion, one hundred millions of years would suffice for that portion of the history which is registered in the stratified rocks of the crust. But if the palæontologists find such a period too narrow for their requirements, I can see no reason on the geological side why they should not be at liberty to enlarge it as far as they may find to be needful for the evolution of organized existence on the globe." His final re-

marks were descriptive of suggested points in geology concerning which greater research might aid in elucidation of the subject.

The following-named papers were read and discussed: On the Relations between the Dover and Franco-Belgian Coal Basins, by R. Etheridge; The Southeastern Coal Field, by W. Boyd Dawkins; Note relating to a Boring through the Chalk and Gault near Dieppe, by A. J. Jukes-Browne; On Some Recent Work among the Upper Carboniferous of North Staffordshire and its Bearings on Conceded Coal Fields, by Walcot Gibson; Photographs of Sandstone Pipes in the Carboniferous Limestone at Doolbau, Anglesey, by Edward Greenley; Barium Sulphate as a Cementing Material in the Bunter Sandstone of North Staffordshire, by C. B. Webb; Recent Developments in the System of Photo-micrography of Opaque Objects as applied to the Delineation of the Minute Structure of Fossils, by A. W. Rowe; Water Zones and their Influence on the Situation and Growth of Concretions, by George Abbott; The Extra-moraine Drainage in Yorkshire, by Percy F. Kendall; The Origin of Lateral Moraines and Rock Trains, by J. Lomas; On the Origin of Flint and Homotaxy and Contemporaneity, by W. J. Sollas; Some Observations on the Surface of the Mount Sorrel Granite, by W. W. Watts; On the Origin of Chondritic Meteorites, by A. Renard; On Coast Erosion from Deal to Dover, Folkestone, and Sandgate, by Capt. McDakin; On Coast Erosion from Walmer to Whitstable, by G. Dowker; A Preliminary Report upon the Erosion of the Seacoast of the United Kingdom, by G. W. Whitaker; Photographs of Wave Phenomena, by Vaughan Cornish; On the Eruption of Mount Vesuvius in September, 1898, by Tempest Anderson; The Mode of Erosion of Some Yorkshire Valleys, by Percy F. Kendall; The Geological Condition of a Tunnel under the Straits of Dover, by W. Boyd Dawkins; A Proposed New Classification of the Older and Newer Pliocene Deposits of the East of England and Meteorological Conditions of Northwestern Europe during the Pliocene and Glacial Periods, by F. W. Harmer; Some Observations on the Palæolithic Implements of North Kent, by J. M. Mello; Sigmoidal Curves in the Crust of the Earth, by Maria M. Gordon; and A Few Observations on the Subdivisions of the Carboniferous System in Certain Portions of Nova Scotia, by H. M. Ami.

Also the following reports: Report of the Committee on Seismological Investigations, Report of the Committee on the Structure of Crystals, Report of the Committee on Life Zones in the British Carboniferous Rocks, The Report of the Committee appointed to investigate the Ty Newydd Leaves at Tremeirchion, North Wales, Report of the Committee on the Fossil Phyllopod of the Palæozoic Rocks, Report of the Committee on Photographs of Geological Interest in the United Kingdom, Report of the Committee to examine the Conditions under which Remains of the Irish Elk are found in the Isle of Man, Report of the Committee to investigate the Canadian Pleistocene Flora and Fauna, Report of the Committee appointed to investigate the Ossiferous Caves at Uphill, Report of the Committee on Erratic Blocks of the British Isles, and Report of the Committee on Registration of Type Specimens, were presented before the section.

D. Zoölogy.—The presiding officer of this section was Prof. Adam Sedgwick, F.R.S., of Trinity College, Cambridge, who delivered an address on Variation and Some Phenomena connected with Reproduction and Sex. In beginning his address he said: "That part of the science of

zoölogy which deals with the functions of organs, particularly of the organs of the higher animals, is frequently spoken of as physiology, and is separated from the rest of zoölogy under that heading. Some of the most important problems of the physiological side of zoölogy still remain within the purview of this section." On the variation of organisms he said: "The members of a species, though resembling one another more closely than they resemble the members of other species, are not absolutely alike. They present differences, differences which make themselves apparent even in members of the same family—that is, in the offspring of the same parents. It is these differences to which we apply the term variation. Without variation there could have been no progress, no evolution in the structure of organisms." After discussing genetic variation, he asked: "Has the variability of organisms ever been different from what it is now? Has or has not evolution had its influence upon this property of organisms, as it is supposed to have had upon their other properties? There is only one possible answer to this question. Undoubtedly the variability of organisms must have altered with the progress of evolution." This he then discussed at length, closing with: "If variation was markedly greater in the early periods of the existence of living matter, it is clear that it would have been possible for evolutionary change to be effected much more rapidly than at present, especially when we remember that the world was then comparatively unoccupied by organisms, and that, with the change of conditions consequent on the cooling and differentiation of the earth's surface, new places suitable for organic life were continually being formed."

The following-named papers were read and discussed: A New Form of Sponge (*Astrosclera villeyana*) from Lifu, Loyalty Islands, by J. J. Lister; The Morphology of the Cartilages of the Monotreme Larynx, by Johnson Symington; The Palpebral and Oculomotor Apparatus of Fishes, by Bishop Harman; The Development of *Lepidosiren paradoxa*, by J. Graham Kerr; Animals in which Nutrition has no Influence in determining Sex, by James F. Gemmill; Some newly Discovered Neo-myloodon Remains from Patagonia, by A. Smith Woodward; Observations on the Habits and Characteristics of the Fur Seals of the Bering Sea, by G. E. H. Barrett-Hamilton; The Results of Some Experiments made at Plymouth on the Artificial Rearing of Sea Fish, by Walter Garstang; An Account of Dr. C. G. Joh. Peterson's Investigations in Plaiice Culture in the Limfjord, by Sir John Murray; The Occurrence of the Gray Goumard and its Spawning in the Offshore and Inshore Waters, by W. C. McIntosh; The Physico-Biological Aspect of the Thames Estuary as Bearing on its Fisheries, by J. Murie.

Also the following reports: Report of the Committee appointed to promote the Systematic Collection of Photographic and other Records of Pedigree Stock, Report of the Committee on the Periodic Investigation of the Plankton and Physical Conditions of the English Channel during 1899, Report of the Committee on the Occupation of a Table at the Zoölogical Station at Naples, Report on the Zoölogy of the Sandwich Islands, Report on the Zoölogical and Botanical Publication, Report on the Zoölogy and Botany of the West India Islands, and Report of the Committee for constructing a Circulatory Apparatus for Experimental Observations on Marine Organisms.

E. Geography.—This section was presided over by Sir John Murray, F.R.S., who since 1882 has been the editor of the scientific results of the

Challenger expedition. The subject of his address was the Ocean's Floor. He said: "It was the desire to establish telegraphic communication between Europe and America that gave the first direct impulse to the scientific exploration of the great ocean basins, and at the present day the survey of new cable routes still yields each year a large amount of accurate knowledge regarding the floor of the ocean." Taking up special topics, he showed from statistics that considerably more than half of the sea floor lies at a depth exceeding 2,000 fathoms, or more than 2 geographical miles. The greatest depth recorded is 5,155 fathoms, or 530 feet more than 5 geographical miles, being about 2,000 feet more below the level of the sea than the summit of Mount Everest is above it. Concerning the ocean floor, he said: "The deep sea is a region of darkness as well as of low temperature, for the first direct rays of the sun are wholly absorbed in passing through the superficial layers of water. Plant life, in consequence, is quite absent over 93 per cent. of the bottom of the ocean, or 66 per cent. of the whole surface of the lithosphere." He referred to the changes in progress on the floor of the ocean, and discussed the causes of the changes in the surface of land areas. In closing he made an appeal for aid to carry to a successful issue the proposed antarctic exploring expedition.

The following-named papers were read and discussed before the section: Description of an Arctic Voyage in the Russian Ice-breaker Yermak, by Admiral Makuroff; Physical Observations in the Barents Sea, by William S. Bruce; The Voyage of the Southern Cross from Hobart to Cape Adare, by Hugh R. Mill; The Problem of Antarctic Exploration, by M. H. Arctowski; The Physical and Chemical Work of an Antarctic Expedition, by John Y. Buchanan; On the Flora of the Seas, by George Murray; Travels in East Bokhara, by Mrs. W. R. Rickmers; An Account of a Journey in Western Oaxaca, Mexico, by O. H. Howarth; An Account of the Oceanological and Meteorological Results of the German Deep-sea Expedition in the Steamship Valdivia, by G. Schott; The Mean Temperature of the Surface Waters of the Sea round the British Coast, and its Relation to that of the Air, and Temperature and Salinity of the Surface Waters of the North Atlantic during 1896 and 1897, by H. N. Dickson; The Nomenclature of the Forms of Suboceanic Relief, by Hugh R. Mill; Bathymetrical Survey of the Scottish Fresh-water Locks, by Sir John Murray and F. P. Pullar; Twelve Years' Work of the Ordnance Survey, by Sir John Farquharson; Sand Dunes in Lower Egypt, by Vaughan Cornish; A Visit to the Kartchkhall Mountains in Transcaucasia, by W. R. Rickmers; On the Anthropogeography of New Guinea and Sarawak, by Alfred C. Haddon; Travels through Abyssinia, by Capt. Wellby; An Account of a Journey to Wilzeck Land and a Winter in the Arctic Regions, by Walter Wellman, of Washington city, U. S. A.; and On Oceanic Islands, by Charles W. Andrews.

F. Economic Science and Statistics.—The presiding officer of this section was Henry Higgs, who is secretary of the British Economic Association and is connected with the English civil service. The subject of his address was The Condition of the People. He said: "The prime concern of the economist and of the statistician is the condition of the people. The statistician measures the changing phenomena of the production, distribution, and consumption of wealth, which to a large extent reflect and determine the

material condition of the people. The economist analyzes the motives of these phenomena, and endeavors to trace the connection between cause and effect." Mr. Higgs then contended that "we want, above all, the careful, minute, systematic observation of life as effected by environment, heredity, and habit." Concerning wages, he said: "It is now necessary for us to distinguish between real wages and utilities; not to stop at the fact that so many shillings a week might procure such and such necessities, comforts, or luxuries, but to ascertain how they are expended." The defects of household management received due attention, and he contended that great possibilities in the economic progress would result from attention being paid to the humblest details of domestic life. The waste in the consumption of food was discussed, and he told how, owing to the great cheapness of bananas during a recent severe strike, the strikers had sustained themselves and their families on this fruit at a trifling cost. Other forms of waste, such as coal, were mentioned, and he quoted Edward Atkinson to the effect that the waste of food from bad cooking in the United States amounted to \$1,000,000,000 a year. He contrasted the economies of the French people with those at home, and referred to the desirability of municipal management of funerals. He quoted largely from Le Play's monograph, *Family Budgets*, saying: "They yield excellent material, upon which science in its various branches has yet to do work which will benefit mankind in general, and promises especially to benefit the people of this country."

The following-named papers were read and discussed before the section: Aspects of American Municipal Finance, by John H. Hollander, of Baltimore, Md., U. S. A.; Municipal Trading and Profits, by Robert Donald; The Single Tax, by William Smart; The State as an Investor, by E. Cannon; The Mercantile System, by G. J. Stokes; On the Mercantile System of *Laissez Faire*, by Miss Ethel R. Faraday; Geometrical Illustrations of the Theory of Rent, by J. D. Everett; On the Modes of representing Statistics, by F. Y. Edgeworth; Agricultural Wages from 1770 to 1895, by A. L. Bowley; On the Census of 1901, by Miss Clara E. Collet; On the Cause of Average Wages between 1790 and 1860, by George H. Wood; The Regulation of Wages by Lists in the Spinning Industry, by S. J. Chapman; The Teaching University of London and its Faculty of Economics, by Sir Philip Magnus; The Increase in Local Rates in England and Wales, 1891-'92 to 1896-'97, by Miss Hewart; Bank Reserves, by George H. Pownall; Indian Currency after the Report of the Commissioner, by Hermann Schmidt; The Silver Question in Relation to British Trade, by J. M. Macdonald; Results of Recent Poor-law Reform, by Harold E. Moore; and Old-age Pensions in Denmark, by A. W. Flux.

G. Mechanical Science.—Sir William H. White, F. R. S., who is assistant controller and director of naval construction in the English Admiralty, was the presiding officer of this section. His address treated of Steam Navigation at High Speeds. He said that progress in steam navigation had been marked by the following characteristics: 1. Growth in dimensions and weight of ships, and large increase in engine power as speeds have been raised. 2. Improvements in marine engineering, accompanying increase of steam pressure; economy of fuel and reduction in the weight of propelling apparatus in proportion to the power developed. 3. Improvements in the materials used in ship-building; better structural arrangements; relatively lighter hulls and larger

carrying power. 4. Improvements in form, leading to diminished resistance and economy of power expended in propulsion. These characteristics were illustrated by a concise survey of the progress achieved (1) by transatlantic passenger steamers, (2) by swift passenger steamers for long voyages, (3) by cargo and passenger steamers, and (4) by cross-channel steamers. He told how speed had been increased from 8½ to 22½ knots, and the time on the voyage reduced to about 38 per cent. of what it was in 1840. "Ships have been more than trebled in length, about doubled in breadth, and increased tenfold in displacement. The number of passengers carried by a steamship has been increased from about 100 to nearly 2,000. The engine power has been made 40 times as great." The size and speed of war ships was discussed, and he showed how the speed of a war ship in 1860 was from 12 to 13 knots, while at present from 20 to 23 knots are obtained. Modern battle ships are of 13,000 to 15,000 tons, and modern cruisers of 10,000 to 14,000 tons, not merely because they are faster than their predecessors, but because they have greater powers of offense and defense and possess greater coal endurance. He showed the advantages of increased dimensions, and then passed to an interesting description of swift torpedo vessels. Concerning these he said: "The results obtained in torpedo vessels show such a wide departure from those usual in seagoing ships as to suggest the possibility of some intermediate type of propelling apparatus applicable to large seagoing ships, and securing sufficient durability and economy of fuel in association with further savings of weight." He described at length the steam turbo-motor recently introduced by Charles Parsons, and in conclusion discussed the future possibilities of speed, asserting that in the immediate future "further reductions may be anticipated in the weight of propelling apparatus and fuel in proportion to the power developed; further savings in the weight of the hulls, arising from the use of stronger materials and improved structural arrangements; improvements in form and enlargements in dimensions"; also, "if greater draughts of water can be made possible, so much the better for carrying power and speed."

The following-named papers were read and discussed before the section: On the Dover Harbor Works, by William Matthews and J. C. Coode; On Nonflammable Wood and its Use in War Ships, by E. Marshall Fox; A Short History of the Engineering Works of the Suez Canal to the Present Time, by Sir Charles Hartley; A Description of Suggestions made for Fast Cross-channel Steamers to be fitted with the Parsons Steam Turbine, by Charles Parsons; Niclausse Steam Boilers, by Mark Robinson; The Method of Under-water Torpedo Discharge adopted by Sir W. G. Armstrong, Whitworth & Company, by Capt. Lloyd; Electrical Machinery on Board Ship, by Alexander Siemens; A Contribution to the Knowledge of the Electric Conductivity and Magnetic Properties of an Extensive Series of Iron Alloys, by W. F. Barrett and William Brown; A Method of Electric Railway Signaling without Contact, by Wilfred S. Boulton; Some Recent Applications of Electro-metallurgy to Mechanical Engineering, by Sherard C. Coles; On the Lighthouses of the English Channel, by James Kenward; Recent Experiences with Steam on Common Roads, by J. I. Thornycroft; Dymchurch Wall and the Reclamation of Romney Marsh, by E. Case; An Apparatus by which the Circularity of Boiler Furnaces could be tested,

by T. Messenger; and Some Experiments on the Thrust and Power of Air Propellers, by William G. Walker.

H. *Anthropology*.—This section was presided over by Charles H. Read, who is the keeper of British and mediæval antiquities in the British Museum. In his address he called attention to the fact that in Great Britain there is a greater variety of prehistoric and later remains than is seen in most European countries, and yet in the absence of any organized means for their preservation many ancient remains have been plowed down almost to the level of the surrounding country, thus scattering bones and other relics unnoticed over the field. Such accidental and casual destruction can only be remedied by enlightening public opinion through local scientific societies. "The plan I would propose," he said, "is this: Each society should record on the large scale ordnance map any tumulus or earthwork within the country, and at the same time keep a register of the sites, with numbers referring to the map, and in this register should be noted the names of the owner and tenant of the property, as well as any details that would be of use in exploring the tumuli." Mr. Read described the steps taken toward the formation of a bureau of ethnology, and said: "Within a short time we shall have an organization that will systematically gather the records of the many races which are either disappearing before the advancing white man, or, what is equally fatal from the anthropological point of view, are rapidly adopting the white man's habits and forgetting their own." Attention was called to the fact that the museums of anthropology in Berlin surpass those in London; thus "the British province of Assam is represented in Berlin by a whole room, and in London by a single case." This led to a plea for more ample accommodation and for more extensive teaching. He said: "I should like to say that courses of lectures in anthropology delivered in the same building would form a fitting crown to such a scheme for a really imperial museum such as I have endeavored to sketch. There is but one chair of anthropology in this country, and there is ample room and ample material to justify the creation of a second." Failing to secure more accommodations in the British Museum, the natural home of such a collection, he recommended the conversion of the Imperial Institute into "such a museum of anthropology as I have indicated, but, of course, as a Government institution. I am by no means an advocate of the creation of new institutions if the old ones can adequately do their work. But the removal of the ethnographical and anthropological collections from the British Museum to the galleries of the Imperial Institute would possess so many manifest advantages that the disadvantages need scarcely be considered."

The following-named papers were read and discussed before the section: The Personal Equation in the Anthropometry of Criminals, by J. G. Garson; The Finger Prints of Young Children, by Francis Galton; On the Finger Print as a Means of Identifying Criminals, by E. R. Henry; The Cambridge Expedition to Torres Straits and New Guinea and Some of the Totem Customs of the Yaraï Kanna Tribe of Cape York, North Queensland, by Alfred C. Haddon; The Linguistic Results of the Cambridge Expedition to Torres Straits and New Guinea, by Sidney H. Ray; Some Observations on Savage Music and Observations on Hearing, Smell, Taste, Reaction, and Time, by C. S. Myers; On the Clubs, Houses, and Dubus of British New Guinea, by C. G. Selig-

mann; Observations and Experiments on Vision, Color, and Estimation of Time and Two New Departures in Anthropological Method, by W. H. R. Rivers; Observations on the Sense of Touch and of Pain on the Estimation of Weight and Variations of Blood Pressure, by W. McDougall; Stonehenge: Some New Observations and a Suggestion, by Alfred Eddowes; The Discovery of Stone Implements in Pitcairn Island, by J. Allen Brown; On the Occurrence of Celtic Types of Fibula of the Hallstatt and La Tène Period in Tunisia and Eastern Algeria, by Arthur J. Evans; On Irish Copper Celts and On Stone Molds for New Types of Implements from Ireland, by George Coffey; On Recent Ethnographical Work in Scotland, by J. Gray; Recent Anthropometrical Work in Egypt and Some Remarks on the "Cero" of St. Ubaldino: the Relic of a Pagan Spring Festival at Gabbio, in Umbria, by D. MacIver; A Study of One Thousand Egyptian Skulls, with Fifty Thousand Measurements, by Donald Macalister; Notes on Color Selection in Man, by John Beddoe; Sequences of Prehistoric Remains and Early Mediterranean Signanias or Alphabets, by W. M. Flinders-Petrie; Primitive Rites of Disposal of the Dead as illustrated by Survivals in Modern India, by W. Crooke; Preanimistic Religion, by R. R. Marett; Thirty-seven Nats (or Spirits) of the Burmese, by R. C. Temple; Exhibition of Ethnographical Specimens from Somali, Galla, and Shangalla, by R. Koettlitz; The Ethnography of the Lake Region of Uganda, by J. R. L. Macdonald; and The Ethnology of West African Tribes North of the Middle Benue, by H. Pope Hennessy.

Also the following reports were presented before the section: Report on the New Edition of Anthropological Notes and Queries, Report on the Collection, Preservation, and Systematic Registration of Photographs of Anthropological Interest, Report of the Committee for the Ethnographical Survey of the United Kingdom, Report of the Committee appointed to investigate the Mental and Physical Deviation from the Normal among Children in Public Elementary and Other Schools, Report on the Lake Village at Glastonbury, Report on the Analysis of the Metals found in the Lake Village, Report of the Committee appointed to Co-operate with the Silchester Excavation Fund Committee in their Excavations in the Roman City of Silchester, and Report of the Committee appointed for the Ethnographic Survey of Canada.

I. Physiology.—The presiding officer of this section was Dr. John N. Langley, F.R.S., lecturer on histology in the University of Cambridge. He said: "I propose to consider some relations of the nerves which pass from the brain and spinal cord and convey impulses to the other tissues of the body—the motor or efferent nerves—and in especial the relations of those efferent nerves which run to the tissues over which we have little or no voluntary control." Concerning limitations in the control of the nervous system over the tissues of the body, he contended that "this control is in considerable part indirect only, the several tissues are in varying degree under direct control, and different parts of one tissue may be influenced by the nervous system to different extents." As to limitations in the control of the nervous system over the different activities, he said that "even when nervous impulses can strikingly affect the vital activity of a tissue their action is limited." After discussing the somatic or voluntary nervous system, he passed to the autonomic or involuntary tissues, which, he said, "although not under the prompt and immediate con-

trol of the will, are under the control of the higher centers of the brain." The arrangement of the involuntary nervous system was described, as well as the cranial and sacral systems. He discussed inhibition, and said that the heart, stomach, and intestines work when no longer connected with the central nervous systems, and that they are especially liable to inhibition. Under the caption of the view of the equal endowment of the tissues, he denied the probability that all unstriated muscle and glands, and even the voluntary muscles, have inhibition nerve fibers. Experimental evidence, he asserted, was fairly decisive in favor of the simple view that the nerve impulse passes indirectly through one "relay station" only from the central nervous system to the involuntary tissues. His final topic was a discussion on the regeneration of certain nerves. He said: "The factors which determine whether a particular tissue or part of a tissue is eventually supplied with nerve endings, and the degree of development of these, are the factors which determine evolution in general. In the individual it is exercise of function which leads to the development of particular parts; in the race it is the utility of this development which leads to their preservation. And so it is conceivable that in some lower vertebrate at some time the autonomic nervous system may have developed especially in connection with those tissues which appear in ourselves to be wholly unprovided with motor nerve fibers."

The following-named papers were read and discussed before the section: Auto-intoxication as a Cause of Pancreatic Diabetes, by J. H. Tuckett; The Effects of Pituitary Extract, by Edward A. Schäfer and Swale Vincent; The Theory of Hearing, by A. A. Gray; A New Instrument for measuring the Duration of Persistence of Vision on the Human Retina and A New Instrument for measuring the Persistence of Duration of Vision, by E. S. Bruce; (1) On the Resonance of Nerve and Muscle; (2) The Propagation of Impulses in the Rabbit's Heart; (3) Fibrillation and Pulsation of the Dog's Heart, by H. Kronecker and F. C. Busch; The Effects of Successive Stimulation of the Viscera and Vasomotor Nerves of the Intestine, by M. Bunch; On the Innervation of the Thoracic Part of the Oesophagus, by H. Kronecker and W. Muklberg; Experiments on a Dog with a Vella Fistula, by H. Kronecker and T. E. Essdemont; On Variations in the Tonus of the Sphincter of the Bladder and The Dependence of the Tonus of the Muscles of the Bladder in Rabbits on the Spinal Cord, by H. Kronecker and Dr. Arnold; On Respiration on Mountains, by H. Kronecker and Dr. Burgi; Protamines and their Cleavage Products: Their Physiological Effects, by W. H. Thompson; The Vascular Mechanism of the Testes, by W. E. Dixon; Observations on Visual Acuity from Torres Strait, by W. H. R. Rivers; On Protamines: The Simplest Proteids, by Prof. Kossel; and Observations on Visual Acuity from New Guinea, by C. G. Seligmann.

K. Botany.—Sir George King presided over this section, and gave as his address a sketch of the history of Indian botany. He pointed out that the first contribution to the knowledge of the botany of what is now British India was made by the Dutch. The active study of botany on the binomial system of nomenclature invented by Linnaeus was initiated in India by Koenig; and the subsequent history of botanic science in India might be divided into two periods, the first extending from Koenig's arrival, in 1767, to Sir Joseph Hooker's arrival, in 1849, and the second extending from the latter date to the present day. If

spoke of the formation of the Botanic Garden in Calcutta in 1787, and of the successive superintendents—William Roxborough, Nathaniel Wallich, and William Griffith. After mentioning other early workers in the field of Indian botany, he passed to a discussion of the splendid work done by Sir Joseph Hooker. Since that event, he said, the most important botanical work done in India has been that of C. B. Clarke. The preservation in good condition of a type specimen is, from the point of view of a systematic botanist, as important as the preservation to the British merchant of the standard pound weight and the standard yard measure, on which the operations of British commerce depend, and yet the only place available for that purpose was an old dwelling office on Kew Green, to which a cheap additional wing had been built. "In behalf of the flora of India," he said, "I venture to express the hope that the provision of a proper home for its types may receive early and favorable consideration of the holders of the national purse strings." In conclusion he described the forest department, which he styled "one of the great economic enterprises connected with botany in India." After showing that the ordinary forest officer educated in England now arrives in India without sufficient knowledge to enable him to recognize from their botanical characters the best-marked Indian trees, he explained this condition by saying: "The general decadence of the teaching of systematic botany in England during the past twenty years is, perhaps, to some extent the cause of the low estimation in which the science is held by the authorities of the Indian forest department."

The following-named papers were then read and discussed before the section: Some Methods for Use in the Culture of Algae and on the Growth of *Oscillaria* in Hanging Drops of Silica Jelly and On Horn-destroying Fungus, by Marshall Ward; On the Influence of the Temperature of Liquid Hydrogen on the Germinative Power of Seeds, by Sir W. Thistleton Dyer; On the Phosphorus-containing Elements in Yeast and On the Sexuality of the Fungi, by Harold Wager; On *Bulgaria polymorpha* as a Wood-destroying Fungus and On India Rubber, by R. H. Biffen; On a Disease of *Tradescantia*, by A. Howard; On the Localization of the Irritability of Geotropic Organs, by Francis Darwin; The Results of Studies in Araceae, by Douglas Campbell; Studies in the Morphology and Life History of the Indo-Ceylonese Podostemaceae, by John C. Willis; On Fern Sporangia and Spores, by F. O. Bower; The Jurassic Flora of Britain and A New Genus of Paleozoic Plants, by A. C. Seward; The Intumescences of *Hibiscus rtilifolius*, by Miss E. Dale; The Maiden-hair Tree (*Ginkgo biloba*), by A. C. Seward and Miss J. Gowan; Some Isolated Observations bearing on the Function of Latex, by J. Parkin; and Stem Structure in Schizaceae, Gleicheniaceae, and Hymenophyllaceae, by L. A. Boodle.

Affiliation with the French Association.—An interesting feature of the Dover meeting was the visit of the French association to Dover and the return visit by the British association to Boulogne. On Sept. 16 nearly 300 members of the French association and of the Société Géologique de Belge arrived at Dover, and were received by the officers of the British association with appropriate words of welcome, Sir Michael Foster saying: "By the friends of science, by the friends of humanity, this day of the reunion of the two associations will always be truly regarded as a great festival." After a reception at the Town Hall, the visiting scientists gathered with

the sections of their choice and later met in common with the association at luncheon, when again addresses of felicitation were made by the higher officers of each association. Also on Sept. 20 the officers and about 100 members of the French association, together with the president and some of the chief officers of the British association, were received and entertained by the mayor and corporation of Canterbury. The return visit of the president, officials, and about 250 members of the British association to the French association gathered at Boulogne was made on Sept. 21. On their arrival they were entertained at a breakfast in the Casino, and later were officially welcomed by the mayor of Boulogne. The British members then attended the sessions of the French association, presenting papers and taking part in the discussions. A banquet, at which happy expressions of good feeling were conspicuous, brought the event to a close.

On Sept. 15 an evening lecture on *La Vibration Nerveuse* was delivered in French by Prof. Charles Richet, and on Sept. 18 an evening lecture on the Centenary of the Electric Current was delivered by Prof. J. A. Fleming. The last-named was made conspicuous by the exchanges of congratulatory telegrams between the British association and the Congress of Electricians assembled in Como, Italy, to celebrate the centenary of Volta's electric discoveries, and also by the exchange of messages by the Marconi system of wireless telegraphy with the French association.

Attendance and Grants.—According to Nature, the meeting was "a great success, especially when the size of the town and the fact that it is the most ambitious effort the town has ever made are considered." The attendance was 1,403, distributed as follows: Old life members, 296; new life members, 20; old annual members, 324; new annual members, 67; associates, 540; ladies, 120; and corresponding and foreign members, 27. In grants for research £1,115 was distributed among the sections as follows: Mathematics, £215; chemistry, £90; geology, £95; zoölogy, £355; geography, £100; economic science and statistics, £5; anthropology, £140; physiology, £75; botany, £20; and corresponding societies, £20.

Next Meeting.—The association will meet in 1900 in Bradford, beginning on Sept. 5. Invitations to hold the meeting in 1901 in Belfast and in Cork were presented, but for special reasons the meeting in that year had been predetermined for Glasgow. Sir William Turner, M. B., LL. D., D. C. L., F. R. S., and F. R. S. E., Professor of Anatomy in the University of Edinburgh, was appointed president for the Bradford meeting. The following persons were invited to serve as vice-presidents: The Earl of Scarborough, the Duke of Devonshire, the Marquis of Ripon, the Bishop of Ripon, Lord Masham, the Mayor of Bradford, the Hon. H. E. Butler, Sir Alexander Binnie, Prof. Arthur W. Rücker, and Prof. T. E. Thorpe; general secretaries, Sir W. Roberts-Austen and Edward A. Schäfer; assistant general secretary, G. Griffin; general treasurer, Carey Foster.

ASTRONOMICAL PROGRESS IN 1899. The advancement in astronomy the past year was eminently satisfactory.

The Sun.—So intense is the glare surrounding the Sun in a cloudless sky that no instrument yet devised enables astronomers to make observations of the various phenomena immediately surrounding it, except the prominences or protuberances, which can be seen and leisurely studied by means of the spectroscope. The other phenomena surrounding the Sun—the chromosphere, the corona, the streamers (curved, straight,

radial, and tangential)—though very bright, can not be seen except when the Sun is totally eclipsed and the observer near the center of the Moon's shadow. The making of long journeys, often of many thousand miles, to observe a total eclipse is not for observing the Sun itself, which would be impossible, as it is entirely covered by the Moon, but to study, with telescope, spectroscope, and photographic camera, the Sun's immediate surroundings.

On Jan. 22, 1898, a large party from several countries visited India to observe a total solar eclipse, which at every station selected was successfully observed. The result of all the observations has just been published in book form, with many elaborate illustrations, by the British Astronomical Association of London. It appears that the observations were almost exclusively photographic, and were a great success. On several of the plates the flash-light spectrum, and on others the corona spectrum, are clearly seen, and also on plates exposed during partial phase the Fraunhofer dark spectrum bordered with dark lines. On some of the plates the flash-spectrum lines in the ultra-violet are beautifully defined, and can be traced as far as wave length 3242. In this region from H more than 218 lines can be counted, and the wave lengths of all measured. A great many of the lines were due to iron, calcium, and magnesium. Three of the strongest lines have been identified by Mr. Jewell, at Johns Hopkins University, as due to the rare element titanium, which, instead of being confined to the flash layer, extended as high in the chromosphere as hydrogen, and also in the prominences, which are eruptions from the chromosphere, extending to a height of 100,000 miles, and were plainly visible to the naked eye during the totality of the eclipse of 1869. The coronium line, to produce which no substance has yet been found on the Earth, was traced to a height of 160,000 miles. This eclipse has confirmed what several previous ones have shown—that the corona, chromosphere, prominences, etc., belong to the Sun, and not to the Moon.

The grandest problem in astronomy is to measure the Sun's distance from the Earth. It was formerly thought that the problem was solved over one hundred years ago, and that the distance was 95,000,000 miles, but is now thought to be about 93,000,000. Millions of dollars were spent to observe the transits of Venus of 1874 and 1878 for this purpose, but the discussion of the observations still left a possible error of 200,000 miles. Now, thanks to the discovery of an insignificant asteroid, by the first day of the twentieth century (Jan. 1, 1901) the doubt will be reduced 75 per cent., as described under Asteroids.

The month of September, 1898, was rendered memorable to solar physicists by the sudden appearance of one of the largest Sun spots on record. As it appeared during the period of minimum Sun-spot activity, it created far greater interest than if it had occurred during the maximum period, and has created a distrust as to the existence of the eleven-year period of Sun spots. It first appeared on the east limb of the Sun on Sept. 2, and on the following day it assumed gigantic proportions, equal to 1,400,000,000 square miles. On the 10th the spot covered an area of only 24,000,000 square miles. During its passage across the central meridian of the solar disk the northern regions of the Earth were treated to one of the most magnificent auroral displays seen for many years. The simultaneousness of the two phenomena goes far to estab-

lish the truth of the theory long entertained that there is a connection between them. At the same time there was a sharp disturbance of the magnetic needle in various countries, and of the telegraph wires, lasting four hours. The movement of the needle in declination extended through an arc of more than a degree. When it is considered that Sun spots last many days, and often weeks, it seems to militate against the truth of the above-mentioned theory that the aurora should last but a day, and often much less, and magnetic intensity but four hours.

Photographic Astronomy.—Dr. E. E. Barnard, of the Yerkes Observatory, Williams Bay, Wisconsin, has published two papers, the first being a description of one of his photographs of the Milky Way, near Theta Ophiuchi, accompanied by a print of it, which reveals much of the intricate structure of that portion of the starry girdle. Certain appearances in the photograph appear to justify the belief that in this portion of the galaxy a substratum of a dual nebulosity exists, while huge dark rifts and black lines suggest the idea that the photograph actually pierced through the luminous girdle into the blackness and starless space beyond. These peculiarities, he says, strongly remind one of the appearances often seen in the umbra of Sun spots, where a dark halo lies in the dark central spot, as if the cavity was partly veiled with some sort of medium, with apertures in it. His second paper can be found in the March number of the *Astro-Physical Journal*.

Prof. E. C. Pickering, of Harvard Observatory, has lately received from its station at Arequipa, Peru, a series of the most successful photographs of the heavens yet taken. One plate especially, 14 × 18 inches, taken with the Bruce photographic telescope, shows with marvelous clearness and exactness as to magnitudes and position the enormous number of 400,000 stars, all depicted by a single exposure of probably several hours' duration. Miss Catharine Bruce, of New York, gave the professor \$50,000 for the construction of this celebrated photographic telescope of unique construction. The object glass corrected for actinism (thus being useless for visual work) is 24 inches in diameter, and has only a 12-foot focus. The professor is now constructing a telescope, going to the other extreme as to focal length, to be about 175 feet, to lie horizontal and immovable. The light from objects to be observed is to be reflected from a plane mirror driven by clockwork, equatorially mounted, and regulated to sidereal time; or the photographic plate itself may be moved by clockwork, to counteract the rotational velocity of the Earth, that a star may be held during exposure on the meridional wire in the eyepiece. The great Yerkes telescope, with a 40-inch object glass, is 67 feet long, while this new instrument, with an objective only 13 inches in diameter, will be more than 100 feet longer. One advantage possessed by the long telescope will be the immense size of the photographed Moon and planets; that of the former will be about 15 inches in diameter, while with ordinary telescopes 3 inches is about the limit. The great telescope building in Paris for the Exposition is to have an object glass 50 inches in diameter, and to be about 100 feet in length. Enlarging photographs, especially of the Moon, is often done, but always at the expense of distinctness; but as the Moon taken with the long telescope will be 15 inches in diameter, no further details of value would be gained by enlarging.

It has been known for many years that in

order to deal most effectively with stellar phenomena a field of much greater width was necessary than from 10 to 15 degrees, as formerly practiced. But not until the publication of Mr. Dallmeyer's stigmatic lens, in 1897, was one able to chart wide sky areas without great distortion near the margin of the field. A photograph taken by Mrs. Maunder, of England, with a stigmatic lens only $1\frac{1}{2}$ inch in diameter and 9 inches in focal length, has been published. The field shown is 37 degrees on a side and 50 degrees diagonally. A set of 40 plates of the same angular aperture as the foregoing, but of larger scale, would provide a more complete chart of the heavens than any that we now possess in a small compass and at very little expense. The work lies very easily within the powers of many small private observatories.

The Planets.—No remarkable advance in our knowledge of the planets was made during the year. Prof. Schiaparelli has published his fifth memoir on the planet Mars, without increasing our knowledge of the cause of its surface markings, which has excited the world during the past two decades. The true explanation of the changes visible on his surface at different seasons, the duplication of the so-called canals, which some astronomers, with indifferent optical appliances, profess to see easily, while others with far superior means can not see them, seems as far off as ever. The gemination of the canals is believed by the majority of astronomers to be an optical illusion, inherent in some eyes, especially if wearied by overwork, the defect being in the eye, and not in the telescope. Some observers say they see markings on Mercury and Venus, and thence deduce conclusions as to their rotation periods. Herr Leo Brenner says he has conclusive evidence that Mercury rotates on its axis once in thirty-three days and forty-five minutes. The general opinion that this period is but about twenty-four hours has long held sway. A day on Venus has been supposed to be about the same as ours, yet some observers now assert that her period of rotation is 224.7 days. In the presence of such discrepant conclusions it must be held that nothing is positively known as to the period of either planet, and the same remark applies to the periods of Uranus and Neptune, and all satellites except our own.

Satellites of Mars.—No. 7, Vol. IX, of the Transactions of the British Astronomical Association contains some new and interesting facts regarding the satellites of Mars, and, as they are totally unlike anything known elsewhere in the solar system, a few are briefly noticed:

Phobos.—This little speck of a world is only 10 or 15 miles in diameter (some estimate it at 7 miles), revolves around Mars in $7^h\ 39^m$, and therefore must move across the sky at the rate of 47° an hour. But, as it rises in the west and sets in the east, its apparent motion across the sky will be the difference between its own and the rotational velocity of Mars, which is $14^\circ\ 30'$ an hour, or $32^\circ\ 30'$. Owing to the satellite's rapid motion, combined with its large parallax, it is above the horizon at the equator for $4^h\ 15^m$, and below it for $6^h\ 45^m$. Owing to the combined motion of both satellite and planet, it requires $11^h\ 6^m$ for Phobos to return to the same meridian, during which time it goes through all the phases, from new Moon to full, and from full to new, that our Moon does in twenty-nine and a half days. As the length of a night on Mars is $12^h\ 18^m$, Phobos can be seen by the same observer twice full and once new, or once full and twice new. The eclipses of both the Sun and the satellite

occur with great frequency. So rapid is the phase change of Phobos that at a zenithal central eclipse, which lasts 54^m , the satellite may be seen to enter the shadow in a phase a little short of full and emerge a little past full, each phase being 0.937. When Phobos is in the zenith it appears more than twice as large as on the horizon. If Phobos and Deimos are exactly in the plane of the planet's equator, Deimos will be occulted by Phobos about every ten hours, the moons approaching each other from opposite directions. The average distance of Phobos from the surface of Mars is only 3,730 miles. Assuming that the satellite turns to Mars the same phase as does our Moon to the Earth, the planet will appear immovably fixed in the sky, with a disk one thousand times larger than is shown by our Moon. A Martian astronomer (if there is one) could with a powerful telescope bring the satellite within one mile.

Deimos.—This satellite completes a revolution round the planet in $30^h\ 15^m$, rising, as does our Moon, in the east and setting in the west, traveling across the sky at the slow rate of $2^\circ\ 45'$, equal to the difference between its own hourly velocity of $11^\circ\ 53'$ among the stars and the hourly rotational velocity of the planet of $14^\circ\ 37'$. If the satellite is supposed to rise when full, it can be seen twice full and twice new before it sets. In the zenith Deimos from the surface of Mars will appear about one third larger than when in the horizon. Its diameter is uncertain, but is considered to be from 10 to 15 miles, too small ever to eclipse the Sun totally, though it will cross the solar disk about 130 times during a Martian year. Of course, it must occasionally happen that both satellites will transit the Sun at the same time, both passing across the sky from west to east, Deimos slowly and Phobos rapidly. If it be assumed that Deimos turns the same face to Mars, which is probable, the planet would appear fixed in the sky, the stars sailing by in regular order. As Deimos is more distant from the surface of Mars than is Phobos, it will appear somewhat smaller, but would still appear vastly larger than our Moon appears to us.

Of Jupiter little is known that was not previously recorded. Mr. Denning, of England, has examined his rotation period as given by dark and bright spots in the region of the equator, which furnishes a mean period of $9^h\ 50^m\ 23^s$, against $9^h\ 50^m\ 30^s$ as previously adopted. The period of the famous red spot, which is still faintly visible, from 17,414 revolutions, is $9^h\ 55^m\ 39.4^s$, but is not uniform. The variation is not great—perhaps not greater than might be expected from the nature of the observations.

Nothing but ordinary routine observations have been made on the planets Uranus and Neptune to determine their periods of rotation, but Dr. E. E. Barnard, of the Yerkes Observatory, has made a series of elaborate observations with the mammoth telescope on Neptune's satellite, the measures of which have enabled Prof. Hall to improve the elements of its orbit. He finds the mass of Neptune to be $1:51.97$, that of the Sun being 1.

Asteroids.—Since the last report the following asteroids have received numbers to replace the provisional letters given in the last volume:

DL.....	429	DP.....	437
DM.....	430	DQ.....	438
DN.....	431	DR.....	434
DO.....	432	DS.....	435

Since then the following have been discovered and received provisional letters. Some of these

have been numbered, and a few have been named as indicated:

DT 436, discovered by Wolf.
DU 438, discovered by Charlois, Nov. 8, 1898.
EB 439, discovered by Coddington, Oct. 14, 1898.
EC 440, discovered by Coddington, Oct. 14, 1898.
ED 441, discovered by Charlois, Dec. 9, 1898.
EE 442, discovered by Wolf, Feb. 15, 1899.
EF 443, discovered by Wolf, Feb. 17, 1899.
EL 444, discovered by Coggia, March 31, 1899.

Nearly a dozen others were found and received provisional letters, but they proved to be those discovered several years ago. The following asteroids have received names: No. 420, Bertholda; No. 421, Zähringia; No. 422, Berdina; No. 428, Monathia; No. 433, Eros; No. 439, Ohio.

An asteroid discovered six years ago, No. 366, which has had only a provisional number, has lately been named *Vincentina*.

Asteroid 433 (DQ), about which so much interest is taken on account of its anomalous orbit and the value it will have for astronomy, has been named *Eros*. A brief notice of its discovery was given in the last volume of the *Annual Cyclopædia*, before the great value of the discovery was fully appreciated or its orbit accurately computed. The number of asteroids now known is about 450, all between the orbits of Mars and Jupiter except the one under discussion. The labor of keeping track of so many is great, and the announcement of the discovery of another is treated with indifference bordering on disgust; but the discovery of *Eros* has opened a broad field for speculation, as it may be the forerunner of others moving in the same or similar orbits. It was discovered by photography; its trail, a long one, was found on the plate with two short ones, which immediately indicated that if it was not that of a comet then there must be an asteroid with an orbit unlike any of the others. A few observations showed that two thirds of its orbit lies between the orbits of the Earth and Mars, instead of between Mars and Jupiter. At certain times it can approach nearer the Earth than any heavenly body except the Moon, and be just visible to the naked eye. It makes one of these nearest approaches only once in about thirty-one years, when its parallax will amount to almost a minute; and of all the means that can be used for the ascertainment of the Sun's distance from the Earth, including the transits of Venus, this little insignificant world is worth the most. We have always considered Mars as our nearest outside and Venus the nearest inside neighbor, but now it is *Eros* and Venus. At its least distance from the Earth *Eros* is only 0.15, in terms of the Earth's distance from the Sun, as compared with 0.27 for Venus in transit, equal to 25,650,000 miles, and 0.38 for Mars in perihelion, equal to 35,300,000 miles, or only 14,000,000 for *Eros*.

The Earth passes the longitude of the asteroid's perihelion (nearest the Sun) on Jan. 22, and in order that the Earth and the asteroid be nearest together the asteroid must pass perihelion on or near that date, which it will not do till 1931. But, fortunately, quite a near approach will take place in December, 1900, the distance being 0.33, at which the little planet will be between the eighth and ninth magnitude. When discovered it was of the eleventh magnitude, and three and a half years previous it must have been of the sixth and a half. The diameter of the little world is about 17 miles.

If its parallax can be obtained, Kenler's third law gives at once the distance of the Earth from the Sun, which is the "yardstick" that "determines the distances of all the planets from the

Sun and from each other, and their diameters and orbital velocities." Prof. Pickering found the trail of *Eros* on 13 plates exposed during 1893-'96, the photo-magnitudes varying from 8.2 to 12.5. During the search for *Eros* on the plates Mrs. Fleming found images of two variable stars, one of which fails to appear on 10 plates. All the photographs on which *Eros* was found were taken with doublets. Had lenses of the usual form been used, with a field only 2 degrees in diameter, all the images of *Eros* would have fallen outside the plates.

Dr. S. C. Chandler, editor of the *Astronomical Journal*, has computed the following elements of *Eros*, using recent observations combined with positions found on Harvard plates in 1894:

EPOCH 1898, AUG. 31.5, GREENWICH MEAN TIME.	
Mean anomaly.....	221° 35' 45.6"
Node to perihelion.....	177° 57' 56.0"
Longitude of node.....	308° 31' 57.1"
Inclination of orbit.....	10° 50' 11.8"
Angle of eccentricity.....	12° 53' 9.8"
Daily motion.....	3015.2336"
Logarithm of mean distance.....	0.1637876
Period of revolution.....	643.10 days

Saturn's Ninth Satellite.—Attempts have been made to discover new satellites to the planets by photography, but they have failed, from the low rapidity of the lenses employed. On Aug. 16, 17, 18, 1898, four plates were exposed for two hours each, with the lens presented to Harvard College Observatory by Miss Catharine Bruce, of New York, which has 24-inch aperture and only 13 feet 4 inches focal length. One hundred thousand stars appeared on each plate. The photographs were examined two at a time, one superimposed on the other, and placed film to film, so that each star was represented by two contiguous dots, the satellite showing itself by a single dot, sharing in the motion of Saturn relatively to the stars. The position of the satellite is nearly the same on the two plates taken on Aug. 16. On Aug. 17 it followed this position 35" of arc, and was south 19". On Aug. 18 it followed 72", and south 43". Its motion was direct, but slower than that of Saturn, and nearly in the same direction. It therefore can not be an asteroid, but must be either a ninth satellite to Saturn or an ultra-Neptunian planet. Prof. Pickering, who has thoroughly investigated all the circumstances of this strange and unexpected discovery, thinks the latter supposition exceedingly improbable. It was at first identified with a faint object found on the plates taken in 1897, and the period of revolution around Saturn (seventeen months) was thence derived; but this is not confirmed, and the period is now in doubt. The position angle in May, 1899, was between 280° and 290°, and the distance between 20 and 30 minutes. The uncertainties will probably be diminished when plates taken at the Harvard Observatory station at Arequipa, Peru, on Sept. 15, 16, and 17, 1898, are received at Harvard College Observatory. The apparent orbit of the supposed satellite is a very elongated ellipse. From comparisons with Hyperion, the faintest of his satellites, the magnitude of the new one is estimated at 15.5. As seen from Saturn, it would appear of the sixth magnitude, or as faint as the faintest star visible to the naked eye. If its reflecting power is the same as his largest satellite, Titan, its diameter is estimated to be only about 200 miles. Prof. William H. Pickering, its discoverer, suggests the name *Phœbe*, sister of Saturn. It thus appears that this unique planet is adorned with 9 moons, environed in 3 rings, and sometimes 5.

Nebulæ.—In four years of the five that Dr. Lewis Swift has been director of the Lowe Observatory, at Echo Mountain, California, he has discovered and catalogued 350 new nebulæ. Some of these are very interesting, and deserve thorough investigation with the spectroscope and the largest telescopes. Special attention is drawn to a few, as follows:

One which he calls a nebulous nebula, in right ascension $23^{\text{h}} 29^{\text{m}}$, declination south $36^{\circ} 20'$, has the appearance of a central elongated nebula, with sharp outline, centrally superimposed on another very much the larger and of unimagined faintness. It is probably the only one in the heavens that bears any resemblance to it, and raises the question whether there can be any connection between the two, if two there are. Astronomers are acquainted with several nebulous stars—that is, a star in the center of a nebulous atmosphere—but a nebula in the center of a nebulous atmosphere is a novelty. One in right ascension $0^{\text{h}} 40^{\text{m}} 45^{\text{s}}$, declination south $35^{\circ} 05'$, presents the curious aspect of a double nebulous Uranus. Two others, which he calls hair-line nebulæ, resembles, except in color, a short piece of horsehair. They are doubtless disk nebulæ, their thin edges being presented exactly to our line of sight. Their places for A. D. 1900 are right ascension $3^{\text{h}} 31^{\text{m}}$, declination south $34^{\circ} 47'$, and right ascension $5^{\text{h}} 29^{\text{m}} 20^{\text{s}}$, declination south $36^{\circ} 28'$.

Prof. Herbert A. Howe, director of the Chamberlain Observatory, University Park, Colorado, has recently discovered 22 new ones while obtaining micrometrical places of some previously discovered.

Dr. De Lisle Stewart has 46 novæ on photograph plates, taken with the Bruce photographic telescope at the Harvard Observatory station, Peru, in the latter part of 1898. The group is between right ascension $3^{\text{h}} 10^{\text{m}}$ and $3^{\text{h}} 50^{\text{m}}$, and declination south $49^{\circ} 50'$ and $55^{\circ} 40'$. Only two appear in Dreyer's New General Catalogue of Nebulæ—viz., 1311 and 1356. There are several nebulous regions in the celestial vault that suggest the idea that they may be offshoots from one, or at least are connected together, the connecting links being invisible from faintness and distance. Isaac Roberts has lately reproduced a photograph of No. 2239, between right ascension $6^{\text{h}} 24^{\text{m}}$ and $6^{\text{h}} 33^{\text{m}}$ and north declination $4^{\circ} 24.8'$ and $5^{\circ} 56.5'$ in the constellation Monoceros, with an exposure of $2^{\text{h}} 45^{\text{m}}$, a depiction of nebosity, extending like a cloud, but broken up into wisps, streamers, and curdling masses densely dotted with stars on its surface and the surrounding region. Several remarkable black tortuous rifts meander through the nebosity, their margins sharply delineated.

Hind's variable nebula is the only well-authenticated instance of a nebula varying in brightness, somewhat analogous to variable stars. It is in Taurus, and is No. 1555 of the catalogue of nebulæ. The following observations were made with the 40-inch telescope of the Yerkes Observatory by Dr. Barnard: When discovered by Prof. Hind, of England, many years ago this nebula was conspicuous in an ordinary telescope, but in 1868 it had vanished from the largest telescopes. Mr. Burnham saw it as a very faint nebula, in 1890, in the 36-inch telescope at the Lick Observatory. In February, 1895, it was an easy object, but it had vanished the following September. On Sept. 28, 1897, it could be detected at good intervals of seeing, but with extreme difficulty, with the great Yerkes telescope.

Dr. Scheiner, with an exposure of seven and a

half hours, obtained a good photograph of the spectrum of the great nebula in Andromeda from R to H. A comparison between this and the solar spectrum disclosed a surprising agreement between them. No trace of bright lines (a sure indication of the presence of gas) was present, so that the interstellar space in the nebula is not apparently occupied by gaseous matter. The doctor calls attention to the analogy between the Andromeda nebula and the Milky Way. The streams and irregularities of the latter he regards as of special structure, instead of a ring system. The ground for this view is the fact that all ring nebulæ give gaseous spectra, in contrast with the spiral nebula.

Dr. J. E. Keeler, director of the Lick Observatory, on the night of Dec. 12, 1898, observed the Orion nebula with the spectroscope attached to the 36-inch telescope. The slit was first placed on the nebulosity surrounding the star (Bond 734). The night being hazy, only a single line was visible, identified as H β . The slit was then placed on the Huyghenian region near the trapezium, which showed the usual spectrum. H β and the second nebular line (α) = 4959 were about equally bright, but the chief line (α) = 5007 was several times brighter than either. The intensity of the spectrum was then diminished by contracting the vertical aperture of the spectroscope, the resolving power remaining unchanged. When the brightness was sufficiently reduced H β and the second line disappeared, the chief nebular line alone being visible. In other words, with a sufficiently feeble spectrum the H β line was alone visible in one part of the nebula, and the chief line alone in another part. The doctor pronounces the result inexplicable on physiological grounds, and thinks it can only be due to real difference in the spectrum of the nebula itself.

Recent observations of the star Mira (which varies from the second magnitude to invisibility in eleven months) by Prof. Campbell, with the Mills spectrograph attached to the 36-inch telescope at the Lick Observatory, show that the star is retrograding from us at the rate of 38.5 miles a second. This result was obtained from the dark lines only, as some of the bright lines show considerable displacement toward the violet. He was unable to perceive any trace of the green line of hydrogen, yet the two succeeding members glowed with unexpected intensity. The absence of the lower radiations constitutes an anomaly of the most pronounced kind, and is accounted for by the diverse character of the hydrogen spectrum in nebulæ and bright helium stars.

Comets.—In 1898 ten comets were observed, one more than ever before recorded, while up to Oct. 20 three only were discovered in 1899, and two of these were expected.

Comet I 1898 (Brooks).—This interesting comet was discovered by William R. Brooks at Smith Observatory, Geneva, N. Y., on Oct. 20, 1898, in the constellation Draco, in right ascension $14^{\text{h}} 35^{\text{m}} 10^{\text{s}}$, declination north $60^{\circ} 26'$. For a telescopic comet it was large and bright, being visible with a 3-inch telescope, in presence of a half-moon. For a while after discovery it was supposed to be a return of Schaeberle's comet of 1881 IV, so similar were their orbital elements. Further observations, continued longer, afforded evidence that it was moving in a parabola, and therefore was a visitor to our system for the first and last time. Similarity of element, however, leads strongly to the supposition that they belong to the same family. The following are the latest, and presumably the most ac-

curate elements of its orbit: Time of perihelion passage, 1898, Nov. 23.14, Greenwich mean time; from node to perihelion, $123^{\circ} 22'$; longitude of node, $90^{\circ} 10'$; inclination, $140^{\circ} 19'$; perihelion distance, 0.7564.

Comet 1898 J (Chase).—This extremely faint comet was discovered by photography by Mr. F. L. Chase, an assistant at Yale College Observatory, who on Nov. 14 photographed the radiant of the November meteoric shower in the sickle of Leo. When the plate was developed nothing indicating a new point of light or a trail by a moving object was seen. But two weeks afterward the director, inspecting the negative, saw a minute speck slightly elongated. He requested astronomers at other observatories to inspect their plates, and the speck was found at the same place. When the region was examined with one of our great telescopes the mysterious object was identified as a comet. The shortness of the trail was accounted for by the slow motion of the comet and the short exposure, combined with its extreme faintness. From observations made on Nov. 14, 23, and 25, and Dec. 5, Prof. Möller has computed the following orbital elements: Time of perihelion passage, 1898, Sept. 19.65, Berlin mean time; node to perihelion, $4^{\circ} 23' 9.2''$; longitude of node, $95^{\circ} 47' 0.2''$; inclination of orbit, $22^{\circ} 28' 25.2''$; longitude of perihelion distance = q . 0.357918. These elements indicate that the orbit is a parabola.

Comet A 1899 (Swift) was discovered by Dr. Lewis Swift, director of the Lowe Observatory, Echo Mountain, California, on the evening of March 3. It was the brightest and most interesting comet that has appeared since the great comet of 1882. It had an interesting history while under observation, which was nearly four months. For full particulars the reader is referred to the *Astronomical Journal*, No. 464, where a double head and double nucleus are represented and fitful variations of brilliance are described. This variation in brilliance was a new feature in cometary astronomy. The discoverer from its subsequent behavior has reason to believe that a sudden outburst occurred just prior to its discovery, rendering it visible to the naked eye. At this time a phenomenon was seen which could not be seen the next evening nor at any subsequent evening, and which never has been seen appended to any comet. The bright coma visible to the naked eye was centrally superimposed on another very much the larger and of unimagined faintness, the marginal demarcation of the two being sharply defined. The following parabolic elements have been computed: Time of perihelion passage, April 13.0148; node to perihelion, $8^{\circ} 48' 52''$; longitude of node, $25^{\circ} 0' 55''$; inclination, $146^{\circ} 15' 48''$; logarithm of perihelion distance, 9.51311.

Comet B 1899 = Tuttle's of 1858 = Mechain's Comet of 1790.—This interesting periodic comet was rediscovered by Dr. Wolf on March 5, 1899. It has a period of 13.7 years. It remained unobserved from 1790 to 1858. Its period is the longest of all the short-period comets.

Comet C 1899 (Holmes) = Comet III 1893.—This was rediscovered, June 10, by Perrine at the Lick Observatory with the 36-inch telescope, in which it appeared not brighter than a star of the sixteenth magnitude. This is its first return since its first discovery by Holmes in 1893.

Comet D 1899 (Tempel's) = Comet II 1873.—This short-period comet of six years was also rediscovered by Perrine on May 7, almost exactly at the place computed for it by Prof. Schulhof, the error being only $2'$ of arc.

The elements of Comet E 1898 (Perrine) resemble those of the Comets of 1684, 1785 I, Comet B 1898, and Pons's comet of 1812 = Comet Pons-Brooks of 1884. These facts strongly indicate that they all belong to the same family, although only the latter is periodic. The elements of the bright comet discovered by Prof. Brooks, as stated above, bear a strong resemblance to that of 1881 IV, although Dr. Stechert has computed for it a period of not less than one hundred thousand years. For comparison the elements of both are subjoined:

Comet Brooks.	Comet 1881 IV.
Node to perihelion..... $123^{\circ} 33' 48''$	$122^{\circ} 7' 19''$
Longitude of node..... $90^{\circ} 20' 1''$	$97^{\circ} 2' 37''$
Inclination..... $140^{\circ} 21' 4''$	$140^{\circ} 13' 54''$
Log. of perihelion distance. 9.587852.....	9.80178

Comet E 1899 (Giacobini) was discovered at Nice, France, on Sept. 29, in right ascension $16^h 20^m 3.2^s$, declination south $5^{\circ} 10'$. The following elements have been computed from observations of Oct. 3, 6, and 9:

TIME = 1899, SEPT. 18.3115 BERLIN MEAN TIME.

Node to perihelion.....	$12^{\circ} 47' 26''$	} 1899.0.
Longitude of node.....	$272^{\circ} 4' 48''$	
Inclination.....	$76^{\circ} 38' 17''$	
Logarithm of q = 0.25278.		

Variable Stars.—For three hundred years it has been known that Beta Persei (Algol or Demon star) varied periodically through nearly two magnitudes; also that Omicron Ceti (Mira the Wonderful) varied from the third magnitude to invisibility, going through all its changes in about eleven months. Many others, as now known, are at their maxima visible to the unassisted eye, but at their minima are beyond the reach of ordinary telescopes. Many theories have been advanced to account for their variability. The number of these now known amounts to more than a thousand. As amateurs can engage profitably in the work, no telescope being required, the list is increasing rapidly. In several particulars Algol is the most interesting, as the theory to account for its behavior is recognized by all astronomers as correct—viz., that it has a dark companion revolving round it, the plane of whose orbit is coincident with our line of sight, which periodically eclipses it. If this theory be true, then the bright component must alternately approach and recede from our solar system. The spectroscope has settled that question in the affirmative, giving the following data: Diameter of Algol, 1,000,000 miles; diameter of companion, 800,000 miles; distance between them, 3,000,000 miles; velocity of companion, 55 miles a second.

The shortest known variable is U Pegasi, changing in $5^h 35^m$. Nova Auriga, when discovered, appeared as an ordinary star of the fifth magnitude, but soon began to decline rapidly in brightness, until it reached about the seventeenth magnitude, being a difficult object in the great Lick telescope. It has a remarkable spectrum, showing many bright narrow lines and broad dark bands. Later it increased to the tenth magnitude, and is now a nebulous star. Examining the Draper memorial photographs, Mrs. Fleming, of Harvard College Observatory, discovered a new star in Sagittarius, which was first of the fifth magnitude, and therefore easily visible to the naked eye, but by March, 1899, it had declined to the tenth. The spectrum resembles those of many other variables, many of the bright lines being due to hydrogen.

No so great advance in astronomy has been made as in the discovery and classification of

variable stars. The number now known is a hundred times greater than were known fifty years ago. But the most surprising and least expected is that many stars in several clusters vary, some during short periods and in wide limits. The literature of the subject is extensive. After the fact became known a systematic search by photography was made by Mr. S. I. Bailey at the Harvard Observatory at Arequipa, Peru, which resulted in the discovery of those mentioned below. The whole number of stars examined in the several clusters was 19,050, of which 509 were variable, or 1 variable to 37. This ratio, however, varies greatly in different clusters. While in Messier there are 13, the splendid naked-eye cluster in Hercules shows but 2 variables, or only 1 in 500. Messier 3 showed 132 in 900, or 1 in 7. No cause has been assigned for these extraordinary phenomena that meets with general acceptance. Prof. E. C. Pickering has compiled a table giving the number of variables in 23 clusters, which is published in *Popular Astronomy* for November, 1898, of which the following are the most remarkable: New General Catalogue 5272 = Messier 3, 132 are variables; New General Catalogue 5839 = Omega cluster 125; New General Catalogue 5904 = Messier 5, 85; New General Catalogue 7078 = Messier 15, 51, are variables. The Omega Centauri cluster, just visible without a telescope, surpasses in number of stars in a given area all others known. Its position is right ascension $13^h 26^m 46^s$, declination south $46^\circ 47'$. Although it is much less than some others in extent, yet 8,000 stars have been counted on a photograph plate, but the number actually visible is very much greater. The periods of 106 of the 125 variables in the Centauri cluster have been determined; 98 have periods less than twenty-four hours. The longest is four hundred and seventy-five days, the shortest six hours and eleven minutes. The largest range in variation is about five magnitudes, and no star has been included whose light changes do not amount to half a magnitude. In one star whose period is fourteen hours and eight minutes, the rise from minimum to maximum, a change of two magnitudes, takes place in one hour. Eleven of the clusters investigated have 11,980 stars and 462 variables, or 1 in 26.

Double Stars.—A large number of the naked-eye stars are found, when examined by the telescope, to be double or triple. Those that revolve around each other are called binaries, of which Castor is a familiar example. From 1877 the period of this interesting binary was considered to be one thousand and one years; but this theory has been completely upset by the fact that since 1887 the two components have been steadily approaching each other. Prof. Doberck, of Hong-Kong Observatory, has recently computed a new orbit from all available observations. He makes the time of perihelion passage A. D. 1948.80, and the period only 318.23 years.

The line must be sharply drawn between telescopic and spectroscopic doubles. A star may be telescopically double and not be a binary, one star happening to be almost exactly behind the other. Not until orbital motion is detected beyond all doubt can the star be pronounced a binary. On the other hand, a spectroscopic double is assuredly a binary, for its orbital motion is what determines it to be a binary double. A spectroscopic double never can be seen double by any telescope, so close together are the components. When the components of such a pair revolve around each other, their orbital plane being coincident with our line of sight, the visible

star (the other supposed to be dark) must alternately approach the Earth and recede from it by the attraction of the dark one. It is this reversal of the motion of light that the spectroscopic takes cognizance of. Several such spectroscopic doubles have been lately discovered, the latest find being the pole star. This polar pilot has a minute star quite close to it visible in small telescopes, but there is no reason to suppose that they are physically connected. Polaris (as the pole star is called) is a spectroscopic binary, lately discovered to be such by Prof. W. W. Campbell, of Lick Observatory, and its duplicity has been fully confirmed by Edwin B. Frost, at Yerkes Observatory, whose observations and measurements tally almost exactly with those of Prof. Campbell. The latter is of the opinion that it is a ternary system instead of a binary—that is, the system is composed of one bright naked-eye star and two dark ones, which make a revolution around the bright one in a little more than three days. The spectroscopic has proved that the pole star is moving toward the Earth at the rate of 9 miles a second. Although Polaris is approaching the Earth, yet its velocity is variable. During two days it is approaching our system at the mean rate of 14 kilometres a second, and during the next two days but 8 kilometres. This variable motion is ascertained by the displacement of the lines in the bright star's spectrum. When any star is approaching the Earth its spectral lines are moved slightly toward the violet, but if it is receding the same lines are moved toward the red end of the spectrum. The amount of displacement gives the velocity. If the velocity of a star is uniform, whether to or from the Earth, this affords positive evidence that the star is not a binary with their orbital planes coincident or nearly so with our line of sight. The spectroscopic takes no cognizance of a binary star if its motion is perpendicular to our line of sight.

The photographic determination of the motion of a star in the line of sight by the spectroscopic is one of the marvels of photo-spectroscopy, which, owing to more rapid plates, can now be obtained by an hour's exposure. The plate and the companion spectrum of a terrestrial source are placed side by side, and the measure of the displacement of the two spectra is then made with the microscope and micrometer. M. Deslandres juxtaposed a terrestrial spectrum with that of Alpha Auriga, and found that the displacement of the lines toward the red corresponded to a velocity of recession of 43 kilometres a second. For the dog star (Sirius) the increase of distance was 18 kilometres a second. Gamma Pegasi was found to be approaching the Earth at the rate of 3 kilometres a second. Beta Auriga showed a doubling of the lines, first detected by Prof. Pickering (proving that the star is a spectroscopic double, which no telescope is able to divide), which indicates velocities of 100 kilometres a second, or a little more than 62 miles.

In the progress of the work of a spectrographic determination of stellar motion to and from our system several other instances of rapid motion were detected. From four plates of the spectrum of Eta Cephei a mean result was obtained showing a velocity of approach of nearly 87 kilometres a second, and four plates of the brighter component of Zeta Herculis give a velocity, also of approach, of 70.3 kilometres a second. Belopolski's result for the latter star is 70 kilometres. These results, however, are somewhat reduced when corrected for the motion of

the solar system in space—nearly toward Alpha Lyra, according to Prof. Newcomb.

All stars, including our Sun, which is also a star, are in motion. To us they appear to move very slowly, which is owing to their great distance, whereas in many instances the motion is exceedingly rapid. Hitherto the most rapid known was 1830 Groombridge, called the "runaway star." A very interesting star in this respect has recently been discovered in connection with Prof. Capteyn's work on the Cape of Good Hope photographic *Durchmusterung*. It is of the eighth magnitude, in right ascension $5^h 6^m 40^s$, declination south $44^\circ 58.2'$. It has a proper motion of $9''$ of arc, exceeding that of 1830 Groombridge by about $12''$. Its rapidity of motion would indicate that it may have a large parallax, and prove it to be our nearest stellar neighbor. The circle of the sky, like all circles, contains 1,296,000", which, divided by 9, gives 144,000, the time required to complete the circle of the sky. The number of miles an hour which such a motion implies depends on the star's distance, which is unknown.

Prizes.—The fifth Watson gold medal has been awarded by the American National Academy of Sciences to Dr. David Gill, astronomer royal at the Cape of Good Hope, the value of whose labors in astronomy is everywhere appreciated. The Laland prize of the French Academy of Sciences was awarded to Dr. S. C. Chandler, editor of Gould's *Astronomical Journal*, for contributions to astronomy. The Damoiseau prize was bestowed on Prof. G. W. Hill, of Washington; the Valtz prize, on M. P. Colon, of Madagascar; the Janssen prize, on M. Belopolsky, of the Imperial Observatory of St. Petersburg. The Bruce gold medal was awarded to Dr. Auwers for various kinds of astronomical work, but especially for largely contributing to the determination of the solar parallax.

Variation of Latitude.—Dr. S. C. Chandler frequently publishes a paper in his *Astronomical Journal* on the variation of latitude and its cause. He contends that recent observations tend strongly to confirm the truth of his hypothesis that the axis of rotation of the Earth is not at the pole itself, but within it, and that, instead of being stationary, it describes a small ellipse with axes $0.30''$ and $0.08''$ in a year, its major axis lying along a meridian 45° to the east of Greenwich. Astronomers are about equally divided as to the truth of the hypothesis.

End of the Century.—The year A. D. 1900 is the last one of the nineteenth century, and not, as many suppose, the first of the twentieth, and as it closes a remarkable century, and is of itself a remarkable year also, it seems advisable to explain why it is not the beginning of the next century, and also why it is a remarkable year. It must be borne in mind that the year of Christ's birth was A. D. 1, the previous year being B. C. 1, there having been no year 0. Therefore, supposing he was born, as we reckon time, on Jan. 1, A. D. 1, and as it requires one hundred years to make a century, it is plainly evident that the first century ended at midnight of Dec. 31, A. D. 100. Immediately after, Jan. 1, A. D. 101, the second century began, and in like manner the third began Jan. 1, A. D. 201, and the twentieth will begin Jan. 1, A. D. 1901, nineteen centuries not having been completed until midnight of Dec. 31, A. D. 1900. Nineteen hundred is divisible by 4, without a remainder, and yet 1900 will not be a leap year. The rule for calculating leap years, briefly told, is as follows: All common years divisible by 4 and centennial years by 400,

without remainders, are leap years. The year 1900, being a centennial year, but not divisible by 400, is a common year, the like of which has not happened in one hundred years. If the year consisted of an exact number of days, no leap year would be necessary. Also, if its length was exactly three hundred and sixty-five days and six hours, a leap year once in four years would keep the same seasons to the same months forever as they now exist, winter never occurring in July and August. For convenience we call the year three hundred and sixty-five days and six hours, while it is only three hundred and sixty-five days five hours forty-eight minutes and forty-six seconds, an annual difference of eleven minutes and fourteen seconds, which in four years amounts to forty-four minutes and fifty-six seconds, so that at every leap year we are adding forty-four minutes and fifty-six seconds too much, which in a hundred years amounts to eighteen hours forty-three minutes and twenty seconds, or more than three fourths of a day. By calling each centennial year a common year too much would be dropped by five hours sixteen minutes and forty seconds, or nearly a quarter of a day; therefore each fourth centennial is called a leap year, the extra day being dropped from the other three, which produces an almost exact correction, the error amounting to but one day in thirty-six hundred years.

This is according to the Gregorian calendar, a correction of the Julian calendar, which provided for the leap years but not for the centennials which are not divisible by 400. Some countries were slow in adopting the Gregorian calendar, notably England, and Russia has not yet adopted it, though an effort is being made to do so at the beginning of the twentieth century. At the time this calendar was adopted in England an error of eleven days had accrued, which had to be dropped, and this accounts for the celebration of Washington's birthday on Feb. 22, although he was born on the 11th, as reckoned at that time. All our Presidents, with the single exception of Jefferson, were elected in a leap year, and the President to be elected in 1900 will also be elected in a common year; but this will not again happen until A. D. 2100, which, like 1900, will be divisible by 4 but not by 400. It therefore follows that a person born on Feb. 29 (as is the case with the writer) enjoyed his last birthday in 1896, and the next will not occur until 1904.

Eclipse Expedition.—The eclipse expedition to India was made possible by the generosity of Mr. W. M. Pierson, and was under the immediate charge of Mr. C. Bueckhalter, of the Chabot Observatory, at Oakland, Cal., who, with the aid of two or three volunteers, carried out his work with perfect success. His place of observation was only two miles from Prof. Campbell's camp of the Lick Observatory party. The unusual brightness of the sky and terrestrial surroundings, which was very marked, was ascribed to the presence of much atmospheric dust. The Pierson photographic telescope had been provided with a duplicate lens and tube in case of accidents. The photographs taken by the latter were good, but those of the Pierson lens, in which the exposures were controlled by a new device, show the finest at the Sun's limb, and also the greatest extension of the corona, equal to $2\frac{1}{2}$ diameters of the Moon, all upon the same plate, a thing never before accomplished. By this method, if allowance be made for the extreme brightness of the inner corona, which has always been underrated, results of great value may be secured in future eclipses.

Prof. Burckhalter designed doing little, but doing it well. The ingenious device mentioned above, one of his own inventions, was intended to control the exposure so as to give the outer and fainter streamers a long exposure, and the bright inner ones and the chromosphere a shorter one upon the same plate, a feat never before accomplished. This was done by a revolving disk in front of the plate, with slits cut out of it wide at the circumference and narrow at the center. The disk was made to revolve by clockwork at the back of the plate, the attachment passing through a hole made in the plate itself. This hole, falling in the center of the Moon's disk, did no particular harm, its effect on the print being strikingly like some newly discovered crater on the Moon. The light intensity transmitted to the plate at the farthest limits of the corona and streamers, being the same as at the Moon's limb, prevents an overexposure at the latter region and an underexposure at the former. This arrangement, as used at the eclipse in India, gave an exposure at the outer corona of four seconds, against only 0.08 of a second at the inner. At the meeting of the Royal Astronomical Society attention was drawn to the beauty of the details in the inner corona as seen on the photograph, and especially to a formation in the northwest quadrant, which was not shown on any of the other photographs.

Astrographic Chart.—The Savilian Professor of Astronomy at Oxford University Observatory, speaking of the measurement and reduction of the plates for the Astrographic Catalogue, says that only 586 plates out of 1,180 required to include the entire sky have been measured, and 525 of them are completely reduced. The scheme is less favorably considered by astronomers than formerly.

Prof. Turner has found that sometimes 300 or 400 stars are depicted on his plates, 2 degrees by 2 degrees square, with only twenty seconds' exposure, and that with a three-minute exposure in the region of this area, whose center is in right ascension $19^h 43^m$, declination north 29° , 2,440 stars were measured. To avoid having too many stars on the plate, he found it necessary to reduce the time of exposure.

As the result of the laborious investigation carried out by Prof. E. C. Pickering, of Harvard College Observatory, it has been found that with a photographic doublet lens large fields are obtainable sensibly free from optical distortion. This being the case, astronomers begin to entertain the opinion that the scheme of further completing the astrographic chart with its hour's exposure of plates, embracing an area of only 2 degrees by 2 degrees square, is a waste of time and labor, and the taking of these long-exposure plates is being abandoned.

AUSTRALASIA, one of the grand divisions of the globe, consisting of the continent of Australia and island colonies of Great Britain, with interjacent islands. With the exception of the Dutch and German portions of New Guinea, the German protectorates of Bismarck Archipelago and the northern Solomon Islands, the French colony of New Caledonia, and the New Hebrides and smaller islands under native rule, all the islands of Australasia are British colonies and dependencies. The five colonies in Australia and the colonies of Tasmania and New Zealand are self-governing, having each its representative Legislature, with a responsible ministry, disposing of its own revenues, and making its own laws under a charter granted by the British Parliament, subject to a certain reserved veto power

of the Imperial Government and to the appellate jurisdiction of the Judicial Committee of the British House of Lords in matters of imperial concern. The Crown is represented in each colony by a governor, who as the executive head of the colonial Government acts on the advice of responsible ministers selected from the party or coalition that forms the majority in the Legislative Assembly. The Crown colony of Fiji is administered in accordance with native laws and customs, and its Governor is High Commissioner for the Western Pacific, having supervision of the other islands under native rule.

Area and Population.—The area in square miles of the British Australasian colonies, according to the latest surveys, and their estimated population on Dec. 31, 1897, are given in the following table:

COLONIES.	Area.	Population.
New South Wales.....	310,700	1,335,800
Victoria	87,884	1,169,434
Queensland	668,497	484,700
South Australia.....	908,690	358,224
Western Australia.....	975,920	161,924
Tasmania.....	26,885	195,540
New Zealand*.....	104,471	703,260
Fiji and Rotumah	8,045	121,798
Total	3,085,592	4,530,740

* Census of 1896.

The estimate of population for New South Wales was made on June 30, 1898. The number of males was computed at 715,835; females, 619,965. Sydney, the capital, had, with its suburbs, an estimated population in 1897 of 417,250. The number of aborigines in 1891 was 5,097; of half-castes, 3,183.

In Queensland the aborigines are estimated at 12,000. There is still some immigration of Chinese into Queensland, the number of arrivals in 1897 having been 455 and of departures 398. The arrivals of Polynesians numbered 935 and departures 924. The population of Brisbane and its environs in 1897 was estimated at 105,734. The total population of the colony on Dec. 31, 1898, was estimated to be 499,000, consisting of 230,000 males and 219,000 females.

The population of Victoria was estimated for June 30, 1898. Melbourne, the capital, contained 458,610, nearly 40 per cent. of the total population of the colony; Ballarat, 46,137; Sandhurst, 43,075. There has been for five years an annual excess of emigrants over immigrants, which was 14,547 in 1896 and 19,949 during the three years preceding, due to departures for the gold fields of Western Australia.

The population of South Australia comprised 183,920 males and 174,304 females. There were 3,848 Chinamen in the colony in 1891. The number of aborigines was then estimated at 3,134—1,661 males and 1,473 females. Adelaide, the capital, contained, with its suburbs, 146,125 inhabitants in 1897.

The population of Western Australia consisted of 110,359 males and 51,565 females. Perth, the capital, had 37,929 inhabitants. The number of aborigines in the colony can not be estimated, as they live mostly in unexplored regions. There were 5,670 civilized aborigines in 1891. At the end of 1898 the population of the colony was estimated at 168,150. The number of arrivals during the year was 32,709; departures, 28,756.

In New Zealand the population consisted of 371,415 males and 331,945 females. Of the total white population, 340,631 were found on the North island, 362,236 on the Middle island, and

493 on Stewart, Chatham, and Kermadec islands. Including 39,854 Maoris and 3,711 Chinese, the total population on April 12, 1896, was 743,214. Of the Maoris, 21,673 were males and 18,181 females. The total includes the half-castes living in the tribes, numbering 3,503, and 229 Maori wives of European husbands.

The population of Fiji consisted of 67,410 males and 54,388 females. The Europeans numbered 3,401, of whom 2,116 were males and 1,285 females; East Indians, 12,025, of whom 8,143 were males and 3,882 females; Fijians, 99,773, of whom 53,208 were males and 46,565 females; Rotumans, Polynesians, half-castes, and others, 6,599, of whom 3,943 were males and 2,656 females.

The movement of population in the several colonies for 1897 was as follows:

COLONIES.	Marriages.	Births.	Deaths.	Excess of births.	Net immigration.
New South Wales.....	8,813	37,247	14,264	22,983	6,606
Victoria.....	7,568	31,310	15,126	16,184	*6,454
Queensland.....	2,994	14,313	5,425	8,889	3,681
South Australia.....	1,949	9,535	3,973	5,562	*816
Western Australia.....	1,659	4,021	2,643	1,378	22,600
Tasmania.....	1,052	4,654	1,947	2,707	4,038
New Zealand.....	4,928	18,737	6,595	12,142	2,752
Fiji†.....		3,451	3,999	†548	.....

* Net emigration. † Fijians only. ‡ Excess of deaths.

Finances.—The revenue and expenditure of the several colonies for 1897 and the state of their debts at the end of the fiscal year ending June 30, 1898, in New South Wales, Victoria, Queensland, and South Australia; on March 31, 1897, in Western Australia and Tasmania; on March 31, 1898, in New Zealand; and on Dec. 31, 1897, in Fiji, are shown in the following table:

COLONIES.	Revenue.	Expenditure.	Debt.
New South Wales.....	£9,482,135	£9,391,012	£61,074,498
Victoria.....	6,896,664	6,701,100	47,058,088
Queensland.....	3,798,152	3,747,428	38,498,414
South Australia.....	2,666,611	2,598,989	24,408,000
Western Australia.....	2,843,775	3,296,044	7,608,480
Tasmania.....	845,019	785,026	8,990,026
New Zealand.....	5,079,230	4,608,272	44,061,521
Fiji.....	74,492	73,232	213,256

The revenue of New South Wales is the gross revenue. Of this, £2,570,480 are obtained by taxation, the estimated yield of customs being £1,256,097; excise, £291,343; stamps, £348,558; land tax, £371,870; income tax, £180,103; licenses, £122,518; the land revenue is £2,023,071; receipts from services, £4,633,196; from miscellaneous sources, £255,379. Of the gross expenditures, £1,855,387 were for the railway and tramway services, £702,361 for posts and telegraphs, £2,271,833 for interest on the public debt, £722,308 for education, and £3,830,123 for other public works and services. The average rate of interest on the public debt is 3.71 per cent. The net return from railroads, tramways, telegraphs, waterworks, and sewerage, on which 81 per cent. of the debt has been expended, is 3.68 per cent. a year. The total revenue for 1899 was £9,754,185, railroad receipts having increased £200,000 and customs £73,000. Expenditure for 1899 was more than covered by income.

The revenue of Victoria derived from taxation was £2,645,187, of which £1,759,380 was received from customs, £294,746 from excise, £115,524 from the land tax, £86,906 from duties on estates of deceased persons, £19,128 from a duty on bank notes, £153,500 from stamps, £17,099 from business licenses, £19,603 from tonnage dues, etc., and £179,301 from the income

tax. The receipts from railways were £2,507,255; from posts and telegraphs, £522,741; from Crown lands, £413,551; from other sources, £451,483. Of the total expenditures, £1,892,092 were for interest and expenses of the debt, £1,476,696 for working expenses of railroads, £251,552 for expenses of other public works, £580,507 for posts and telegraphs, £135,028 for Crown lands, £568,357 for public instruction, £263,723 for charitable institutions, £156,137 for judicial and legal expenses, £299,235 for police and jails, £93,211 for customhouses and harbors, £53,316 for mines, £181,649 for defense, and £616,529 for other expenses. The revenue for 1899 was estimated at £6,907,439; expenditure, £6,873,529. The actual receipts were £7,378,842. Of the total Victorian debt, £36,700,944 were borrowed for railway construction, £7,321,850 for waterworks, £1,105,557 for public-school buildings, and £1,800,970 for other public works. The average rate of interest on the debt is 3.88 per cent.

Of the revenue of Queensland £1,207,849 came from customs, £123,396 from excise and export duties, £110,207 from stamps, £56,598 from licenses, £61,596 from the duty on dividends, £346,249 from rent of pastoral lands, £214,427 from other rents and sales, £1,158,657 from railways, and £258,940 from posts and telegraphs. The principal expenditures were £1,324,333 for interest on the public debt, £684,566 for operating railways, £313,610 for posts and telegraphs, £247,473 for public instruction, £167,385 for the Colonial Treasurer's department, £84,014 for the Department of Public Lands, £37,280 for the Department of Agriculture, and £63,010 for endowments to municipalities and divisions. The expenditure out of loans amounted for the year to £937,068, of which £626,074 were spent on railways, £36,101 on telegraphs, £11,717 on rivers and harbors, £3,875 on defense, £7,598 on water supply, £12,274 on buildings, £70,016 for loans to sugar planters, and £116,877 for loans to public bodies. The revenue for 1899 was estimated at £3,882,360; expenditures, £3,666,507. The actual receipts amounted to £4,174,000, and expenditures to £4,024,000.

South Australia obtains its revenue mainly from customs duties, inland revenue, posts and telegraphs, railroads, and public lands. The customs revenue for 1899 is estimated at £584,386 out of a total revenue of £2,649,899, the estimate of expenditures being £2,619,220. The actual receipts from all sources were £2,665,500.

The yield of customs duties in Western Australia in 1897 was £1,076,330. The rest of the revenue is derived mainly from railways, the postal service, and rent from public lands. The annual charge of the debt is £303,153. The revenue collected during the year 1898 was £2,605,000, having grown from £400,000 in 1890, the year when responsible government was introduced, population having increased from 40,000 to 168,000.

Of the Tasmanian revenue £351,848 was derived from customs. The part derived from land sales is expended for redemption of loans. The revenue for 1898 was estimated at £913,275, and the expenditure at £803,527. Of the total debt, 48.24 per cent. was raised for railroad construction, 1.59 per cent. for telegraphs, 28.82 per cent. for roads, bridges, and jetties, 9.08 per cent. for public buildings, 1.58 per cent. for defenses, 1.34 per cent. for loans to public bodies, and 2.57 per cent. for various public works and services.

Of the revenue of New Zealand £1,935,252 were obtained from customs, £780,232 from the

post office, telegraphs, and stamps, £1,370,572 from railroads, £267,286 from the land tax, and £115,210 from the income tax. Sales of land brought in £109,521. The chief expenditures were £1,741,413 for the public debt, £849,928 for railways, £466,925 for education, £362,993 for posts and telegraphs, and £195,602 for constabulary and defense. The land tax is not assessed on improvements, and the mortgagee pays the tax for the value of his mortgage. The rate for 1897 was 1d. in the pound, besides which a graduated tax is collected on large properties ranging from 1d. on values between £5,000 and £10,000 up to 2d. on values exceeding £210,000. The income tax is collected on incomes above £300, 6d. in the pound on the first £1,000 and 1s. on every additional £1,000 of income.

Of the revenue of Fiji £32,994 came from customs, £4,254 from navigation dues, £7,298 from licenses and internal revenue, £6,847 from law courts, £2,686 from postal and revenue stamps, and £19,217 from native taxes, the last being paid in native produce delivered by the natives and sold by the Government by annual contract. Of the expenditures, £37,726 were paid in salaries and £35,506 for other expenses.

Commerce.—The value of the foreign trade of the several colonies in 1897 is given in the following table:

COLONIES.	Imports.	Exports.
New South Wales.....	£21,744,350	£23,751,072
Victoria	15,454,482	16,739,670
Queensland	5,429,191	9,091,557
South Australia.....	7,126,385	6,928,415
Western Australia.....	6,418,565	3,940,098
Tasmania.....	1,367,608	1,744,461
New Zealand	8,055,223	10,016,963
Fiji	248,748	481,880

The trade of New South Wales with other Australasian colonies amounted to £9,602,277 of imports and £8,174,666 of exports. The overland trade was £3,931,292 for imports and £4,498,619 for exports. Other British possessions furnished £856,576 of imports and took £602,449 of exports. The imports from Great Britain were £7,557,069, and the exports to Great Britain £8,728,828. Imports from the United States amounted to £1,887,877, and exports to the United States were £2,462,319 in value. With all other foreign countries the import trade was £1,840,551 and the export trade £3,782,810. Of the total exports, £17,057,543 were products of the colony. The export of wool was 285,797,725 pounds, valued at £8,920,285. The export of tallow was valued at £504,227; frozen and preserved meat, £545,133; hides and skins, £772,584; leather, £304,179; coal, £952,054; gold coin, £4,346,647. The coal output for 1898 was 4,736,000 tons, valued at £1,304,000.

The imports of Victoria comprised wool for £1,964,731, woollen goods for £604,895, cotton goods for £919,661, sugar for £785,717, tea for £273,338, live stock for £528,787, timber for £251,451, iron and steel manufactures for £535,660, coal for £228,647, and other articles of the value of £9,361,589. The export of wool was 123,572,603 pounds, valued at £3,999,813, nearly half of it being the produce of other colonies. The export of gold, mostly specie, was £6,472,318; export of live stock, £329,860; wheat exported, £225,957; other breadstuffs, £51,509; re-export of tea, £155,806; export of sugar, mostly refined in the colony, £160,554; export of leather and leather manufactures, £370,495; export of clothing, £164,285; export of tallow, £162,585;

all other exports, £4,046,398. Of the total value of imports, £6,004,798 came from Great Britain, to which £9,559,249 of exports were sent; Australasian colonies produced £6,813,772 of the imports and took £4,969,120 of the exports; India furnished £282,090 of imports and received £325,261 of exports; Ceylon furnished £143,030 and received £59,812; Canada furnished £11,682, but took only £424; and other British possessions furnished £335,341 and received £162,583; making the total value imported from British countries £13,590,713 and the total exports to them £15,076,440. The imports from non-British countries were £1,863,769, of which £590,744 came from the United States, £546,589 from Germany, £157,615 from Java and the Philippine Islands, £142,924 from France, £142,915 from Belgium, £104,761 from Sweden and Norway, £48,446 from China, and £129,775 from other countries; exports to foreign countries amounted to £1,063,221, of which the value of £740,638 went to France, £480,840 to Germany, £198,525 to Belgium, £185,344 to the United States, £12,949 to Java and the Philippines, and £44,925 to other countries.

The largest imports of Queensland were textile goods and clothing for £1,030,296 and metals and metal manufactures for £680,606. The chief exports were gold for £2,568,702, wool for £2,509,342, sugar for £681,038, frozen meat for £662,994, hides and skins for £437,658, preserved and salted meat for £274,698, tallow for £272,528, pearl shell for £126,492, meat extract for £92,255, fruit for £87,450, silver for £62,801, and tin for £36,670. Of the total imports, £2,501,952 came from Great Britain, £2,323,035 from Australasian colonies, £205,766 from the United States, £157,342 from British possessions, and £181,096 from other countries. Of the exports, £3,322,703 went to Great Britain, £5,645,626 to Australasian colonies, £79,615 to various British possessions, £1,765 to the United States, and £41,848 to other countries. The yield of sugar in 1899 was 164,000 tons from 82,000 acres, compared with 98,000 tons from 65,000 acres in 1898. The total value of imports in 1898 was £5,880,000; exports, £10,079,000, showing large increases in sugar, wool, gold, and meat.

The South Australian exports of wool in 1897 were valued at £905,393; of wheat flour, £225,387; of wheat, £2,473; of copper, £238,277. The quantity of breadstuffs was 18,119 tons. Of the total imports, £2,054,267 came from Great Britain, £3,846,508 from Australasian colonies, £304,666 from the United States, £240,513 from various British possessions, and £677,431 from other countries. Of the exports, the value of £2,182,946 went to Great Britain, £2,961,212 to Australasian colonies, £909,553 to other British possessions, £1,900 to the United States, and £872,804 to other countries.

The gold exported from Western Australia in 1897 was 674,989 ounces, £2,564,977 in value. Other exports were wool of the value of £295,646; timber, £192,451; sandalwood, £49,480; pearl shell, £40,253; skins, £28,021; pearls, £20,000. Of the total value of the imports, £2,624,086 came from Great Britain, £3,277,300 from Australasian colonies, £210,100 from other British possessions, £160,055 from the United States, and £147,024 from other countries. Of the total for exports, £1,736,205 went to the United Kingdom, £1,980,218 to Australasian colonies, £158,457 to other British possessions, £120 to the United States, and £65,098 to other countries. In 1898 the gold export was 1,050,183 ounces, valued at £3,991,000.

The chief imports of Tasmania were textile goods and clothing for £410,768, mechanical and art products for £334,539, and articles of food and drink for £282,782. The wool export was valued at £264,630; gold, £230,282; silver and silver ore, £216,893; green and preserved fruit, £195,073; tin, £150,586; timber and bark, £62,085; hops, £18,373. Of the total value of imports, £612,980 came from Victoria, £197,667 from New South Wales, £125,522 from other British colonies, £397,510 from Great Britain, and £33,929 from foreign countries. Of the total exports, Victoria took £807,433; New South Wales, £583,273; other colonies, £68,331; Great Britain, £274,497; and foreign countries, £10,927.

The imports of New Zealand in 1897 included textiles and clothing for £1,982,896, iron and steel goods and machinery for £1,406,111, sugar for £373,407, books, paper, and stationery for £337,336, spirits, wines, and beer for £268,160, fruit for £183,133, tea for £178,350, tobacco and cigars for £164,889, oils for £163,793, bags and sacks for £104,401, fancy goods for £100,824, coal for £98,139, other merchandise for £2,680,762, and specie for £61,022. The exports were wool for £4,443,144, frozen meat for £1,566,266, gold for £980,204, butter and cheese for £553,122, Kauri gum for £398,010, hides, skins, and leather for £343,769, grain and pulse for £339,643, preserved meats for £78,235, grass seed for £46,947, phormium or New Zealand hemp for £30,674, bacon and hams for £13,560, animals for £11,974, other domestic produce for £530,735, British and foreign merchandise for £144,955, and specie for £275,771. The export of wool was 135,835,117 pounds; of frozen meat, 1,407,921 hundredweight; of Kauri gum, 6,641 tons; of butter, 99,002 hundredweight; of cheese, 77,683 hundredweight. Of the total value of the imports, £5,392,738 came from Great Britain, £1,001,003 from Australia, £628,044 from the United States, £303,624 from India and Ceylon, £283,593 from Pacific islands, £43,390 from China, £25,564 from Mauritius, and £377,267 from other countries. Of the exports, £8,168,123 went to Great Britain, £1,323,784 to Australia, £375,096 to the United States, £117,365 to Pacific islands, £6,773 to China, £3,258 to Mauritius, £2,810 to India and Ceylon, and £19,784 to other countries. The total value of imports for 1898 was £8,230,529; of exports, £10,523,290.

The chief imports of Fiji were textile goods for £49,254, breadstuffs for £23,085, coal for £14,274, rice for £11,205, machinery for £12,036, hardware for £12,807, meat for £9,234, and bags for £6,862. The export of sugar was 20,991 tons, of the value of £323,830. Of copra 7,757 tons were exported, valued at £70,182; of distilled spirits, 15,041 gallons, valued at £1,880; of peanuts, 185 tons, valued at £2,636; of tobacco, 9 tons, valued at £2,052; of cotton, 34 tons, valued at £1,615; of bananas, the value of £16,514.

In the early part of 1899 rains fell in many parts of Australia that have suffered from almost continual drought for three or four years past. Among the other drawbacks to the prosperity of these colonies, which, in spite of precarious seasons, are the most productive communities in the world in proportion to population, is the phylloxera, which has appeared among the vineyards of Victoria. The increase of the wine duty in England is regarded as a serious blow to viticulture in Australia, which is just reaching a practical commercial footing after half a century of struggles. The early samples exhibited at the world's fair of 1851 were so promising that the

planting of vineyards in Victoria became a huge speculation. Ignorant and careless methods destroyed the reputation of Australian wines until practical wine growers from France and Germany introduced the true system. Young Australians went to those countries to learn the European processes. The wines shown at the Indian and Colonial Exhibition of 1886 revived the interest of the British public in this colonial product. The old and discarded vineyards were restocked and fresh lands were planted. In 1891 the Victorian Government offered bonuses for the planting of vineyards, and sent round instructors in wine making. In 1895 the Government of South Australia opened bonded stores in London, where wines already approved by the officials in the colony are treated and matured under the supervision of an expert, with the result that the exports from that colony have increased fivefold. The long voyage, the heavy freights, and the cost of importing casks are serious handicaps to the trade in competition with European countries, and hence the wine growers of Australia hoped that the new duty would be remitted in their case. The imports of Australian wines into Great Britain have increased from 56,000 gallons in 1884 to 710,000 gallons in 1898.

The imposition of a stamp duty on colonial securities is also resented as an invidious action of the British Government. One of the most troublesome pests in the pastoral regions is the cattle tick, which is spreading into new districts constantly. Government agents have been sent to Europe to seek new ways of promoting the export commerce of the colonies. A fraudulent trader of Adelaide, whose practices might cause a'arm concerning the integrity of Australian commercial men, was sentenced by South Australian justice to two years of penal servitude.

The gold production for the whole of Australia in 1898 was estimated at 3,154,000 ounces, an increase of 565,000 ounces over 1897, Western Australia having produced 1,049,000 ounces and Queensland 918,000 ounces, both leading Victoria, which has heretofore headed the list, whose production for this year was 845,000 ounces, and that of New South Wales 342,000 ounces.

The recent advances in the price of wool and meat have greatly benefited the colonies of New South Wales, Queensland, and New Zealand, and the improvement in the economic situation has made itself felt at once in the finances of the colonial governments, which here reflect more truly than in other countries the general situation. In Victoria the recovery in the pastoral industries has made itself manifest in a less degree. In this colony agriculture has made great strides, the value of its products having risen in five years from £5,000,000 to £7,000,000. In New South Wales the extension of cultivation has lately been still more rapid, the area having been doubled in five years. The increase in 1898 under the new land laws was remarkable, and in Queensland land legislation has contributed to produce a like movement. The best butter season in Australia lasts from October till March, and the harvesting of fruits, such as apples, raisins, currants, prunes, and figs, takes place at the opposite season of the year to that of the northern hemisphere, so that the Australian products scarcely come into competition in the markets of the world with those of Europe and America. The dairy industries are making progress in all the colonies. The sugar production on the north coast, notwithstanding the general depression, has increased 50 per cent. in a year.

The fruit of Victoria and Tasmania, both fresh and dried, finds a ready market in England.

Navigation.—There were 3,345 vessels, of 3,331,877 tons, entered during 1897 at the ports of New South Wales, 2,996, of 2,837,143 tons, being British and 349, of 494,734 tons, foreign. The number cleared was 3,120, of 3,412,554 tons, of which 2,775, of 2,913,314 tons, were British and 345, of 499,240 tons, foreign. The shipping registered in the colony comprised 475 sailing vessels, of 54,671 tons, and 496 steamers, of 66,750 tons.

The number of vessels entered at Victorian ports was 1,888, of 2,437,190 tons, of which 359, of 846,250 tons, were British and 1,371, of 1,242,918 tons, were colonial; the number cleared was 1,882, of 2,428,182 tons, of which 357, of 848,547 tons, were British and 1,370, of 1,249,306 tons, were colonial. The shipping registered as belonging to Victoria was 259 sailing vessels, of 40,637 tons, and 149 steamers, of 55,737 tons.

The number of vessels entered in Queensland ports was 642, of 569,610 tons; the number cleared was 654, of 559,290 tons. The shipping of the colony comprised 90 steamers, of 12,884 tons, and 138 sailing vessels, of 9,874 tons.

In South Australian ports 1,178 vessels, of 1,774,476 tons, were entered and 1,191, of 1,785,673 tons, were cleared. The shipping of the colony consisted of 217 steamers, of 22,229 tons, and 109 sailing vessels, of 30,641 tons.

The number of vessels entered in Western Australian ports during 1897 was 721, of 1,196,760 tons; cleared, 707, of 1,181,072. The registered shipping comprised 17 steamers, of 3,898 tons, and 135 sailing vessels, of 5,812 tons.

In Tasmania 699 vessels, of 542,049 tons, were entered, of which 38, of 116,719 tons, were English; and 717, of 542,119 tons, were cleared, of which 36, of 115,190 tons, were English. The shipping of the colony comprised 155 sailing vessels, of 8,340 tons, and 44 steamers, of 6,036 tons.

The number of vessels entered during 1897 at ports of New Zealand was 600, of 686,899 tons, of which 563, of 648,171 tons, were with cargoes; cleared, 587, of 675,333 tons, of which 548, of 647,121 tons, were with cargoes. Of the vessels entered 133, of 276,020 tons, were British: 395, of 340,793 tons, were colonial; and 72, of 70,086 tons, were foreign. The merchant shipping of the colony comprised 318 sailing vessels, of 40,733 tons, and 188 steamers, of 78,980 tons.

Railroads, Posts, and Telegraphs.—There were 2,691 miles of railway in operation in New South Wales on June 30, 1898, the capital cost of which was £37,719,402. The receipts for the year were £3,026,748 and operating expenses £1,614,605, which was 53.34 per cent. of the gross earnings. The Government owns the railroads and also the tramways, which have a length of 65 miles, built at a cost of £1,478,251, the gross receipts from which were £313,871 and working expenses £259,141.

The railroads of Victoria, all owned by the Government, had a total length of 3,130 miles, built at a cost of £38,325,517. The receipts for 1897 were £2,615,935; expenses, £1,563,805, being 60 per cent. of the receipts. The net profit was 2.75 per cent. of the capital cost, while on the borrowed capital the mean rate of interest is 3.90 per cent. There were 42,263,638 passengers and 2,383,445 tons of freight carried during the year.

The railroads of Queensland had a total length of 2,609 miles at the beginning of 1898. The cost of construction was £18,016,150. The receipts in 1897 were £1,122,637 and expenses £688,033.

The length of railroads in South Australia in December, 1897, was 1,870 miles, of which 146

miles were in the northern territory. The railroads pay a profit to the Government of about 3 per cent.

The length of railroads open to traffic in Western Australia on June 30, 1898, was 1,456 miles, of which 404 miles were private lines. There were 360 miles building.

Tasmanian railroads had a length of 495 miles in the beginning of 1898.

The railroads of New Zealand on March 31, 1898, consisted of 806 miles of Government lines in the North island and 1,249 miles in the Middle island, besides 167 miles of private lines, a total of 2,222 miles. The gross receipts on the Government railroads were £1,376,008, and the operating expenses were £857,191. The cost of construction was £16,872,045. The number of passengers transported was 4,672,264; tons of freight, 2,628,746.

The postal traffic of New South Wales for 1897 was 72,939,084 letters, 1,085,770 postal cards, 42,426,394 newspapers, 12,742,704 packets and book parcels, 539,503 parcels, and 403,779 money orders for the amount of £1,421,524, besides £377,282 paid on postal notes.

The postal revenue of Victoria, including telegraph and telephone receipts, was £529,754 in 1897, and the expenses were £494,257.

The Queensland postal traffic for 1897 amounted to 18,370,937 letters, 11,496,656 newspapers, 4,767,783 packets, and 202,248 parcels. The postal revenue was £167,998.

The post office of South Australia in 1897 carried 19,128,982 letters, 2,039,086 packets, and 9,421,986 newspapers.

In Western Australia the post office carried 12,898,552 ordinary and registered letters and postal cards, 6,744,536 newspapers, and 3,952,025 packets. The receipts from the post office and telegraphs were £261,328.

The post office in Tasmania carried 7,906,506 letters, 2,278,082 packets, 257,878 postal cards, and 5,095,792 newspapers during 1897. The receipts were £58,099, and expenses, including the telegraph service, were £65,268.

The post office in New Zealand during 1897 forwarded 32,272,923 letters, 757,172 letter cards, 1,341,821 postal cards, 14,825,386 books and parcels, 14,261,345 newspapers, and 293,240 money orders. The receipts of the postal and telegraph departments were £371,962; expenses, £364,403.

The telegraph lines of New South Wales had in the beginning of 1898 a length of 12,778 miles, with 33,073 miles of wire. The total cost was £932,412. The number of telegrams sent was 2,728,360 during 1897. The receipts were £427,440; the net revenue was £155,162.

Victoria had 6,947 miles of telegraph lines, with 14,374 miles of wire. The number of dispatches in 1897 was 1,821,634. The telephones had 10,541 miles of wire.

There were 10,090 miles of telegraph lines in Queensland, with 18,472 miles of wire, at the end of 1897. The number of messages sent was 934,326, and the number received from abroad was 121,239, besides 109,569 official dispatches. The receipts were £83,846; expenses of the telegraph and postal services, £313,944.

South Australia had 5,862 miles of telegraph and telephone lines, with 14,447 miles of wire. The overland telegraph from Adelaide to Port Darwin has a length of 2,000 miles. The Government receives a net profit after paying interest on borrowed capital.

The telegraphs of Western Australia on Jan. 1, 1898, had a length of 5,958 miles, besides 965 miles under construction; the length of wire was

8,111 miles. The number of dispatches in 1897 was 1,306,003. The net receipts were £98,696.

The Tasmanian telegraphs had 1,884 miles of line, with 3,313 miles of wire, besides 427 miles of submarine cable. The number of messages in 1897 was 229,710. The Government owns in addition 570 miles of telephone lines. The revenue from telegraphs and telephones was £19,308 in 1897.

New Zealand telegraphs had on March 31, 1898, a length of 6,484 miles, with 18,024 miles of wire. The number of dispatches for the year was 2,696,233. The revenue from telegraphs and telephones was £136,221.

Australian Federation.—The Australian Premiers met at Melbourne on Jan. 28, 1899, in a new Federal Council to recast the commonwealth bill which had been ratified by the popular referendum in 1898 in Victoria, Tasmania, and South Australia, but had failed to secure the required majority in New South Wales, and in Western Australia had not been accepted by the Legislature, while Queensland also stood aloof, waiting for the action of New South Wales. In New South Wales the movement for Australian union had found some of its earliest and strongest advocates, but the project that was adopted at the convention encountered the uncompromising opposition of a large and determined minority of the politicians and people of this, the most populous and progressive of the colonies, who, before yielding up the free-trade policy by which they had prospered and endangering their preponderant economic position among the colonies, wanted to be sure of a federal constitution in which New South Wales and Victoria, which must bear the principal part of the financial cost, would not be swamped by the votes of the three or four other members of the confederation. The Constitution as worked out by the convention of 1898 followed the democratic model of the United States, and amply protected the state rights of the minor colonies, whereas the statesmen of New South Wales endeavored to carry through a closer national union, patterned after the Constitution of the Dominion of Canada. They objected to the financial provisions of the commonwealth bill as imposing unequal burdens on the citizens of different colonies, and to the Constitution of the Federal Parliament as conducive to deadlocks. The Braddon clause of the original bill provided that the surplus revenues should be paid back to the colonies in proportion to their population. At the new conference the Premiers came to a satisfactory settlement of all disputed questions. It was agreed that an absolute majority of both houses of the Federal Parliament should decide all differences between the two branches of the Legislature, instead of a majority of three fifths; but, to safeguard the interests of the lesser states as protected by the Senate, the protracted method of procedure is retained, whereby a measure rejected by the Senate can not be reintroduced until three months have elapsed, which means shelving it to another session, and, if it is again rejected, both houses must be dissolved and a new Parliament elected, which, if the bill is again passed in one house and rejected in the other, will finally decide the question by a majority vote in joint sitting. The Braddon financial clause was adopted only provisionally for ten years, at the end of which the Federal Parliament may repeal or amend it, and in the meantime it is empowered to deal with any exceptional difficulties arising out of the financial position of any of the states. It was agreed that the capital of the federation should be a federal district located

within the boundaries of New South Wales, at least 100 miles removed from Sydney. Pending the erection of the federal buildings the Parliament will meet in Melbourne, Victoria. No alteration was made in the original proposals regarding rivers, which will be under the control of the Federal Parliament if they flow through the territory of more than one colony; money bills, which must originate in the House of Representatives, and may be rejected but not amended by the Senate; judicial appeals; or the number of Senators, which will in the beginning be six for each colony, and may be increased when the Federal Parliament deems it expedient. The number of Representatives will be twice the number of Senators, and if these are increased they will be increased proportionally. They will be elected by the popular vote of each colony in separate districts. The Senators will be elected also by direct popular vote, but by the whole colony voting as one electorate. To Queensland, however, was accorded the desired privilege of choosing its Senators separately in the three divisions of the colony.

Premier Reid pledged himself to secure the passage of the amended federation bill through the Parliament of New South Wales and of a new enabling bill for taking a referendum by which a simple majority of the electors would be sufficient to secure the adoption of the Federal Constitution. Sir John Forrest, the West Australian Premier, would not promise to support the amended bill before consulting his colleagues. The other Premiers promised to have the new bill referred to the electors of their respective colonies in accordance with the original provisions of the enabling acts of 1896. South Australia was to take the referendum in connection with the general election without waiting for New South Wales. The agreement was signed on Feb. 3. On his return to Sydney Mr. Reid was confronted with difficulties in the way of keeping the agreement on which he had not reckoned. The session of the Parliament of New South Wales opened on Feb. 21. The amended bill, to which Mr. Reid had pledged his credit as Premier, was passed by the lower house on March 2. It was sent to the upper house, where further amendments were introduced. One of these required that one fourth of the electors on the register should vote for the bill in order to secure its approval, or, in other words, that, instead of the majority required by the Melbourne agreement, at least 80,000 votes should be given in its favor. The amended bill passed the Legislative Council on March 21. The New South Wales Government was pledged to secure the passage of the bill without amendments. On Feb. 22 the lower house rejected the amended bill as sent down to them by the Council. The upper house refused to give way. A conference of the two houses was called to discuss the question, and met without result on March 28. Mr. Reid, in accordance with his previously declared intention, exercised the power which constitutionally belonged to him, prorogued Parliament for a few days in order to give himself the power of reintroducing the rejected bill, and increased the numbers of the upper house by the nomination of 12 new members. The nominees selected took their seats on April 11. The reintroduced bill was presented to the lower house and passed on April 13. It was accepted by the reconstituted Council on April 19, and on April 25 the announcement was made that the federal bill would be submitted to a referendum of the electors on June 20. The South Australian Parliament passed the en-

abling bill on March 3 without a division. The enabling acts of the various colonies stipulated that three of them could go on and form a confederation, to which other colonies might be admitted later. The Western Australian act contained the proviso that New South Wales must be one of the three.

The referendum in South Australia, taken on April 29, resulted in a vote of 65,990 votes for the commonwealth bill to 17,000 against the measure. In New South Wales the popular vote was cast on June 20. Both parties put forth their utmost strength, and the federationists won by a vote of 101,000 to less than 80,000. The parliaments of the other colonies thereupon passed the new enabling bills without opposition. The referendum in Victoria, taken toward the end of July, resulted in a vote of 140,000 in favor of federation to 9,000 negative votes. In Tasmania about the same time 10,000 voted for and 700 against the bill. The vote in Queensland was taken on Sept. 2, and resulted in about 10,000 votes being cast in favor of the bill and 5,000 against it. Western Australia was not yet willing to accept the federal bill as it was. The Government of this colony claimed the right to have amendments introduced in its favor, as had been done to meet the objections of New South Wales. The West Australians considered that the bill placed them in a worse position financially than the inhabitants of any other colony, as they would have to surrender £1,250,000 of their revenue, and would only be relieved of £370,000 of expenditure. When Sir John Forrest proposed to submit the commonwealth bill to a joint committee of the West Australian Parliament the other Premiers protested that alterations in the bill were absolutely impossible, and warned him that delay or isolation would not tend to the advantage of Western Australia.

The scheme of federation which five of the six Australian colonies have accepted, and which awaits the approval of the British Parliament, resembles the Constitution of the American Union, and differs from that of the Canadian Dominion in that all powers not expressly conferred on the Federal Government are reserved to the individual states. The Federal Parliament will consist, after the model of all parliaments in British self-governing communities, of two houses, called in this instance the Senate and the House of Representatives, both elective by popular ballot, Senators for six years, subject to dissolution, members of the lower house for three, the latter about in the proportion of 1 to 50,000 of the present population. The franchise will be identical for both houses, and for the present will be the existing parliamentary franchise of the several colonies. The right is reserved, however, to the Federal Parliament to determine its own franchise when desirable. The powers delegated by the colonies to the Federal Government are in some cases concurrent with those of the states, in others exclusive. The Federal Parliament will have the right of regulating trade with foreign countries and between the states. After a certain period it will have exclusive powers over customs, excise, and bounties. Its powers of taxation are not confined to customs and excise. Direct taxes may be levied, as well as indirect, but all taxation must be uniform throughout the commonwealth. It will have power to legislate with regard to all the services committed to its care, the most important of which are the national defense and the posts and telegraphs. The Federal Government will have the right to borrow on the public

credit, and may, if desired, assume and consolidate the debts of all the federated colonies. Though the Senate may not originate nor amend any financial measure, it may suggest amendments, and has power to reject money bills as well as all other legislation. The powers of the Crown will be exercised in the usual way by a governor general, assisted by an executive council, which will be composed of not less than seven members, responsible, individually and collectively, to Parliament. All the revenues of the commonwealth will be paid into a consolidated revenue fund, which can only be drawn upon by parliamentary appropriations. An elaborate system of bookkeeping and control has been devised to insure the collection of the customs revenue and the return of the surplus in due proportion to the contributing colonies. The administrative expenses of the commonwealth, in addition to the services taken over from the colonies, are not expected to exceed £200,000 or £300,000, against which should be set the savings to be effected by the concentration of those services under a single management. The officers employed in these branches of the civil service become federal officers, to be paid out of the federal treasury. The contemplated conversion of the public debt is estimated to promise a saving of £1,000,000 a year, and the possible consolidation of the railroads nearly £500,000 more. The commonwealth administration itself is not expected to add anything to the total expenses of government, but financial difficulties and inequalities will be felt in some of the individual colonies, which will settle themselves in time or can be adjusted as experience dictates. An important section of the Federal Constitution is devoted to the creation of a High Court of Australia, to consist of a chief justice and at least two associate judges. The Federal Parliament will also have power to create other federal courts. The High Court will be a court of appeal from the supreme courts of the states, and, although the right of appeal to the Privy Council is not abolished, appeal to the High Court will in most instances be substituted. In regard to the interpretation of the commonwealth Constitution, no appeal to the supreme imperial tribunal is allowed, a provision differing from the law of Canada, and one likely to occasion some demur in Great Britain. The amendment of the Constitution is provided for by means of a majority vote of both houses of Parliament, followed by a referendum to the people of the federated colonies, the votes of colonies having female suffrage being counted at half the total number.

The Pacific Cable Scheme.—The question of laying a submarine cable to connect Canada with the Australian colonies has been discussed in its political, strategic, and commercial aspects since the land telegraph system of Canada was extended to the Pacific coast, more than twenty years ago. In 1887 proposals were laid before the colonial conference, and in 1894 the inter-colonial conference at Ottawa approved the project, and requested the Canadian Government to take steps to promote its fulfillment. Estimates, surveys, and tenders obtained by the Canadian authorities were submitted in 1897 to a Pacific cable committee in London, which recommended the route from Vancouver by way of Fanning island and Fiji to Norfolk island, branching thence to New Zealand and Queensland. The total length to the Queensland terminus would be 7,986 nautical miles. The estimated cost from the best materials was £1,800,-

000, to which it was proposed Queensland, New South Wales, Victoria, and New Zealand should each contribute one ninth and the United Kingdom and Canada the remaining five ninths in equal shares. With a cable rate of 3s. a word, taking operating expenses at 1s. a word, and the first year's traffic at 1,800,000 words, the traffic by the eastern line having been 2,350,000 words in 1897, with a rate of 4s. 9d. a word, the new line would more than pay its way from the beginning, the utmost estimate of the fixed charges, including sinking fund and maintenance, being £160,000. The Canadian Government agreed to pay its allotted share of the cost and the Australasian governments their respective shares, but the British Government at the last moment receded from the plan of joint ownership, the Eastern Extension Telegraph Company having protested against Government competition and the reduction of cable charges. The Colonial Secretary, Joseph Chamberlain, proposed instead to subsidize the all-British line by extending imperial credit to raise part of the capital. Though deeply disappointed, the Canadian and Australian governments entered into negotiations with the home authorities on the new basis. The Government of British Columbia offered to contribute two eightieths of the cost in addition to Canada's five eightieths. The proposal of the Imperial Government was to grant a subsidy to meet five eightieths of the net loss of any year, but not to exceed £20,000 annually, in consideration of which the cable must be made in accordance with imperial specifications, the rates subjected to the approval of the Imperial Government, and imperial messages have priority over all others and be transmitted at half rates. The subsidy would begin from the time when the cable is opened for traffic, and would not run longer than twenty years. The protests of the colonies induced the British Government in June to reconsider the offer it made in April, and to express willingness to modify its proposals on the basis of utilizing the public credit of the United Kingdom so as to raise the necessary capital on more advantageous terms than could be obtained for loans guaranteed only by the colonial governments. The Eastern Extension Company, in the hope of defeating the Pacific cable, offered to lay one from South Africa to Australia, and to reduce the charges to or from Europe to 4s. a word. This proposal was favorably received in Victoria and Tasmania, and was welcome to Western Australia, where the cable would land, but New South Wales, New Zealand, and the other colonies clung to the project of all-British cables encircling the globe and connecting the chief self-governing colonies.

New South Wales.—Every male British subject who has resided a year in the colony has the right to vote for members of Parliament. There were 324,338 electors, 24.28 per cent. of the total population, enrolled in July, 1898, and 178,717 voted. The duration of Parliament is three years. The upper house is the Legislative Council, consisting of 58 members appointed by the Crown for life. The Legislative Assembly has 125 members, elected in separate districts.

William Lygon, Earl Beauchamp, succeeded Viscount Hampden as Governor in January, 1899. The Cabinet in the beginning of 1899 consisted of the following members: Premier, Treasurer, and Minister for Railways, George Houstoun Reid; Chief Secretary, James Nixon Brunker; Attorney-General, John Henry Want; Secretary for Lands, Joseph Hector Carruthers; Secretary for Public Works, James Henry Young; Minis-

ter of Public Instruction and Industry and Labor, James Alexander Hogue; Minister of Justice, Charles Alfred Lee; Postmaster-General, Varney Parkes; Secretary for Mines and Agriculture, Joseph Cook.

The government of G. H. Reid has depended for its continuance on the vote of the Labor party, which is always cast solidly either for measures which it advocates or for indifferent measures in return for concessions on other points. The paternal methods of government now followed in this colony are illustrated by the agreement of the Premier to distribute £500,000 as advances to the farmers, who have suffered from drought for four seasons, the maximum relief in each case being limited to £200. He also promised a remission of rents on Crown leases and an extension of time for payments on conditional purchases. After a special session for the passage of the federation bill, which was marked by a conflict between the Premier, supported by the Legislative Assembly, and the upper house, Parliament was prorogued on April 21 till the summer session, for which important measures were being prepared. The deadlock was ended by the nomination of twelve new members to the Legislative Council, of whom four were working-class representatives. This infusion of the Labor element into the upper house was a significant innovation. The acceptance by the colony of federation takes away the great ground of division between the two main parties. The free traders, who have been in the ascendant, must now countenance a protective tariff for Australia against the outside world, which for fiscal reasons may not be less than 25 per cent., while sharing with the other colonies inter-colonial free trade. New combinations of parties are therefore likely to result. Among the new measures brought before Parliament were several of an advanced character, which the Labor party considered important. On the retirement of Mr. Want, on April 18, Mr. Reid assumed the duties of Attorney-General temporarily. Before the opening of the regular session a rearrangement of the Cabinet officers was effected on June 27. The Premier retained the post of Attorney-General permanently, handing over the office of Treasurer to Mr. Carruthers, who was succeeded as Minister of Lands by Mr. Young, the latter being replaced by Mr. Lee as Secretary for Public Works, and he in turn as Minister of Justice by John Hughes, the Vice-President of the Executive Council and representative of the Government in the upper house. Parliament was opened on July 18. Changes in procedure were declared necessary, and grand committees were suggested. Bills were presented for the establishment of a state bank, for old-age pensions, for the amendment and consolidation of the mining laws, and for the construction of narrow-gauge railroads through fertile districts. The state bank was to be established by consolidating two existing savings banks, and empowered to loan money to settlers at 4 per cent. The Government promised also to introduce technical education in the state schools and to establish more experimental farms. Farmers would be assisted by the Government to obtain the best American agricultural machinery. In the beginning of September Mr. Lyne, who had succeeded Mr. Barton as leader of the Opposition, moved a vote of censure, to which a Labor member, Mr. Fegan, added another on the payment of a member of Parliament for a report on old-age pensions. After a week's debate the Government was defeated by a vote of 78 to 40.

Victoria.—The members of the Legislative Council, 48 in number, are elected for six years by freeholders, leaseholders or occupiers of property worth £25 a year, and professional men or graduates. The Legislative Assembly contains 95 members, elected for three years by universal manhood suffrage. The number of electors for the Legislative Council registered in 1898 was 130,545; the number on the roll of the Legislative Assembly was 252,560.

The Governor is Lord Brassey, appointed in 1895. The Cabinet of ministers in the beginning of 1899 was composed as follows: Premier and Treasurer, Sir George Turner; Chief Secretary and Minister of Public Instruction, A. J. Peacock; Attorney-General, Isaac Isaacs; Solicitor-General, Sir Henry Cuthbert; Commissioner of Trade and Customs, President of the Board of Land and Works, and Commissioner of Crown Lands and Survey, R. W. Best; Postmaster-General, J. G. Duffy; Minister of Defense, W. McCulloch; Minister of Mines and Water Supply, H. Foster; Minister of Agriculture and Commissioner of Public Works, J. W. Taverner; Minister of Railways and Minister of Health, H. R. Williams; without office, S. Williamson.

The Minister of Lands, with one of the members of the Assembly, went to New Zealand in the spring of 1899 to study the solution of the difficulty of the unemployed said to have been found in the labor and social legislation of that colony. Their report was on the whole favorable to arbitration in labor disputes and to old-age pensions. The Government was already contemplating legislation for pensioning superannuated workmen, and also a new factory and shop act. The old-age-pension act was based on the New Zealand law, the funds to be provided by the income tax. The eagerness for Government employment and the glut in the labor market of Victoria was shown by over 15,000 applications for less than 400 vacancies in the railroad service. A rush for licenses to dredge for gold in Victorian rivers met with opposition from owners of riparian rights and agriculturists whose lands were endangered, and when this seemed to be the case the Minister of Mines postponed action for twelve months. Parliament was opened on June 27. Besides the labor bills, one was brought in for continuing and extending the income tax. The question of plural voting was the subject of another. The Government also proposed to abolish female suffrage. A commission was appointed to draw up a scheme for technical education. A leader of the Opposition, Mr. Deakin, after agitating the subject in public meetings, offered a resolution in favor of including in the state system of education unsectarian religious instruction, consisting of a short prayer and hymn and the reading of selected passages of Scripture. The Government offered to submit the question to a referendum, and a motion to that effect was carried, with the formidable condition that the heads of the religious denominations should first meet and come to an agreement among themselves as to what form the religious instruction should take.

Queensland.—The Legislative Council consists of 41 members, nominated for life. The Legislative Assembly contains 72 members elected by all adult males who have resided six months in the colony. There were 81,892 electors in 1897. The Governor is Lord Lamington, who was appointed in 1895. The Council of ministers in the beginning of 1899 was composed as follows: Premier and Chief Secretary, James Robert Dickson; Secretary for Agriculture and Minister for

Public Lands, J. V. Chetaway; Home Secretary, J. F. C. Foxton; Postmaster-General and Minister for Justice, W. H. Wilson; Treasurer and Secretary for Mines, Robert Philp; Secretary for Public Instruction, D. H. Dalrymple; Secretary for Railways and Secretary for Public Works, John Murray; without portfolio, A. H. Barlow and George Wilkie Gray.

The Legislative Assembly was dissolved on Feb. 15, and a new Parliament was summoned to meet on May 2 to consider especially the commonwealth bill subsequent to the action upon it by New South Wales. The advantage to Queensland from opening the Australasian markets to its raw products was considered sufficient to overshadow any temporary disarrangement of industrial and commercial relations, while the colony, if it remained isolated, would be shut off from outside financial assistance necessary for the development of its vast but sparsely populated territory. The policy of Queensland was declared by the Premier to be the exclusion of all alien and colored races not already sanctioned by law. In accordance with a treaty with Japan, the immigration of Japanese laborers and artisans has wholly ceased. That country has furthermore given preferential treatment to Queensland sugar. The general elections, which took place toward the end of March, resulted in the return of 43 Ministerialists, 21 Labor candidates, and 8 Opposition members. A rearrangement of the Cabinet took place on March 29 in consequence of the appointment of Mr. Rutledge as Attorney-General. Mr. Wilson, while remaining Postmaster-General, became Secretary of Public Instruction, Mr. Dalrymple became Secretary of Public Lands, and Mr. Chetaway retained the secretaryship of agriculture only. Parliament was opened for regular business on May 16, and, after passing the federation bill, was prorogued on July 4 until after the referendum.

South Australia.—The Legislative Council contains 24 members, elected for nine years by freeholders, leaseholders, and householders. The House of Assembly comprises 54 members, 2 for each district, elected for three years by the vote of all adult citizens, male and female, whose names have been on the register six months. In 1897 the number of electors enrolled was 134,886.

Lord Tennyson succeeded Sir Thomas Fowell Buxton as Governor on Feb. 2, 1899. The ministry in the beginning of 1899 consisted of the following members: Premier and Attorney-General, C. C. Kingston; Chief Secretary, J. V. O'Loughlin; Treasurer and Minister controlling Northern Territory, F. W. Holder; Commissioner of Crown Lands, L. O'Loughlin; Commissioner of Public Works, J. G. Jenkins; Minister of Education and Agriculture, Richard Butler.

Parliament was dissolved on April 6 and elections for the Assembly were held on April 29. A referendum for household suffrage was taken at the same date, as well as the referendum for federation. For household suffrage 49,200 votes were cast to 33,900 in the negative. The Roman Catholics endeavored to carry the country for a capitation grant to all schools and for religious instruction in the public schools. The Ministerial party won, but their majority was cut down. When the new Parliament met Mr. Kingston suggested that, in view of federation, the number of members in the colonial Parliament should be reduced to 16 in the upper and 36 in the lower house, and that there should be fewer ministers, and these elected by Parliament instead of being appointed.

Western Australia.—The Legislative Council consists of 24 members, elected for six years by British subjects holding freeholds or occupying property worth £25 a year. The Legislative Assembly consists of 44 members, elected in as many districts for four years by British subjects resident for at least two years in the colony or in possession of freehold or leasehold property or mining licenses.

The Governor is Sir Gerard Smith, appointed in October, 1895. The Cabinet in the beginning of 1899 was composed of the following members: Premier and Colonial Treasurer, Sir John Forrest; Commissioner for Railways and Director of Public Works, F. H. Piesse; Commissioner of Lands, George Throssell; Minister of Mines, H. B. Lefroy; Attorney-General, Richard William Pennefather; Colonial Secretary, George Randell.

Western Australia has suffered from a depression owing to the withdrawal of capital consequent upon overspeculation in gold mines. The production of the gold fields has nevertheless increased, and recently ore has been shipped as well as gold. Nine public batteries are working, and more are being erected. Coal mines have been opened at Collie and tin mines at Green Bushes. The ill treatment of natives by some of the local magistrates resulted in these losing their commissions. The mole at Fremantle has been extended so as to accommodate more shipping. Parliament was opened on June 21. New measures deal with a tax on dividends, rural and land improvement, the encouragement of local industries, boards of conciliation for labor disputes, trade unions, and free education throughout the colony. The labor bills were suggested by a fierce strike of dock laborers that interfered for many weeks with the commerce of Fremantle until it was settled early in April. The dividend duty is 5 per cent. on the dividends of joint-stock companies doing business in the colony, including banking and mining corporations, but excluding insurance companies. Resolutions in favor of woman suffrage were voted by both houses.

Tasmania.—The Legislative Council is composed of 18 members, elected under a property and educational franchise for the term of six years. The House of Assembly has 37 members, elected for three years by householders and persons in receipt of an income of at least £40. The electors for the Legislative Council numbered 9,359, those for the Assembly 31,613 in 1898.

The Governor since 1893 has been Viscount Gormanstown. The Cabinet in the beginning of 1899 was composed as follows: Premier and Treasurer, Sir E. N. C. Braddon; Chief Secretary, W. Moore; Attorney-General, D. C. Urquhart; without portfolio, Thomas Reiby; Minister of Lands and Works, A. T. Pillinger.

An attempt to upset the ministry in June fell far short of success. A motion in favor of woman suffrage was passed by the Assembly. On Aug. 18 this chamber approved a bill extending throughout the colony the Hare system of voting, which had already been tried in Hobart and Launceston.

New Zealand.—The Legislative Council consists of 48 members, who hold their seats for seven years, except those appointed before 1891, when the term was for life. The Legislative Assembly has 74 members, including 4 representatives of the Maori nation, elected for three years by the votes of all adult persons of either sex who have resided in the colony a year. In 1896 there were 339,230 registered voters, of whom 196,925 were men and 142,305 women; in the 70

European districts and in the 4 Maori districts there were 13,008 votes recorded.

The Governor is the Earl of Ranfurly, appointed Aug. 10, 1897. The ministry in the beginning of 1899 was composed as follows: Premier, Colonial Treasurer, Commissioner of Trade and Customs, Postmaster-General, Electric Telegraph Commissioner, Minister of Labor, and Minister of Native Affairs, R. J. Seldon; Minister of Lands, Minister of Agriculture, Commissioner of Forests, and Minister in Charge of Advances to Settlers' Office, J. McKenzie; Minister for Railways and Minister of Mines, A. J. Cadman; Commissioner of Stamp Duties, Acting Colonial Secretary, and Member of the Executive Council representing the Native Race, J. Carroll; Minister of Immigration, Minister of Education, and Minister in Charge of Hospitals and Charitable Aid, W. C. Walker; Minister for Public Works, Minister of Marine, and Minister in Charge of Printing Office, W. Hall-Jones; Minister of Justice, Minister of Defense, and Minister of Industries and Commerce, T. Thompson.

No community has gone so far as New Zealand in experimental social reforms since the establishment of the principle of one man one vote. The public men of this colony have given their chief attention to the prevention of social conditions detrimental to the well-being of the poorer classes, such as are flagrant in the mother country. The newly enacted old-age-pension act provides that every man and woman in New Zealand from the age of sixty-five onward is entitled as a matter of right, not of charity, in consideration of services rendered and labor performed in helping to build up the colony, to a pension of £18 a year from the state, provided they have been residents of the colony for twenty-five years, have never been in prison for a longer term than four months, and have not deserted their families. The money to provide these pensions is taken from the ordinary revenues, and three years must elapse before Parliament can repeal the enactment or revise it by either increasing or reducing the amount of the pension. Maoris and naturalized foreigners participate in the benefits of the act, but Asiatics are excluded. The railroad revenue of the colony has increased so much that the Government intends to reduce freight charges to home markets in order to encourage production and trade. Inland postage, which is still a penny, will probably also be reduced, but the Premier does not think it a good policy to reduce taxation, as it is necessary to spend money to improve the colony. The Parliament was opened on June 23. The harbor defenses are almost completed, the volunteers fully armed, and the Defense Committee are studying a complete scheme for the defense of the colony. Large areas have been purchased under the land settlements act, but the number of applicants far exceeds that of available farms. The act is to be extended so as to provide land for workingmen's homes and villages. Bills were introduced dealing with workmen's compensation and accident insurance, facilitating the settlement of native lands, and providing for a direct vote of the people on questions of colonial importance and the decision of such questions by a bare majority of voters at the polls. The operation of the industrial conciliation and arbitration act had so expanded that delays resulted, and proposals were submitted to remedy this. The experiment of compulsory arbitration as far as it has gone is approved by all the workers and by many of the employers, but the majority of the employers are still distrustful, and some are bit-

terly opposed to it. On a motion of want of confidence in the House of Representatives on July 6 the Government commanded a majority of only 7 votes.

Fiji.—The Governor of Fiji is Sir G. T. M. O'Brien. The island is divided into 16 provinces, each under a *roko tui*, or native chief. European commissioners reside in three of the provinces. The sugar, coconut, banana, and other plantations belong mostly to European settlers.

British New Guinea.—The British territory of New Guinea, including the Louisiade and D'Entrecasteaux islands, has an area of about 90,540 square miles, with 350,000 native inhabitants and 250 Europeans. The cost of administration, calculated at £15,000 a year, is guaranteed by the Queensland Government, but the governments of Victoria and New South Wales contribute equal shares and have equal control with Queensland over the administration. The territory is administered by the Lieutenant Governor, George Ruthven Le Hunte. The policy of withholding all lands for the use of the natives has been followed hitherto, and regulations forbidding the alienation of land were strictly enforced. However, in March, 1898, the Lieutenant Governor and his Council approved an ordinance enabling a company called the British New Guinea Syndicate to acquire and occupy an area not to exceed 250,000 acres, paying 2s. an acre, with a view to the development of the territory by exploring and opening up Crown lands, cultivating the rubber plant and other tropical produce, and discovering and working mineral deposits. There were 397 vessels, of 20,702 tons, entered and 302, of 20,360 tons, cleared during 1898. Gold is mined in the Louisiade and Woodlark islands and on the mainland by 300 whites, who employ many natives. The value of the imports in 1898 was £46,971; exports, £49,859. The chief imports are foodstuffs, cloth, tobacco, and hardware. The exports, besides gold and pearls, are trepang, copra, pearl shells, and sandalwood.

The British Government, having in 1898 agreed to convey to a land syndicate a tract of land in New Guinea, rescinded the arrangement on account of the remonstrances of the governments of Victoria, New South Wales, and Queensland, leaving these to settle with the syndicate the question of compensation. Another syndicate offered to take 100,000 acres, but the colonial statesmen do not consider the time ripe for making grants of land. Mr. Le Hunte, the new Lieutenant Governor, has prepared a scheme for the development of New Guinea.

AUSTRIA-HUNGARY, a dual monarchy in central Europe, composed under the fundamental law of Dec. 21, 1867, of the Empire of Austria and the Kingdom of Hungary, inseparable constitutional monarchies, hereditary in the male line of the dynasty of Hapsburg-Lorraine or, in the event of the extinction of the male line, in the female line. The legislative power for affairs common to both monarchies—viz., foreign relations, military and naval affairs with the exception of the national territorial armies, common finance, commercial and railroad affairs concerning both monarchies, the customs tariff, the coinage, and the administration of the occupied Turkish provinces of Bosnia and Herzegovina—is exercised by committees of the legislative bodies of both monarchies. These committees, which are called the Delegations, meet alternately in Vienna and Buda-Pesth, the two capitals. They are composed of 20 members elected annually by each of the two upper houses and 40

from each of the lower houses. The Austrian and Hungarian Delegations meet and vote separately, and in case of a disagreement they decide the question by a joint vote. The common ministers are responsible to the Delegations, and may be impeached for any dereliction of duty.

The Emperor of Austria and King of Hungary is Franz Josef I, born Aug. 18, 1830, proclaimed Emperor of Austria on Dec. 2, 1848, when his uncle Ferdinand I abdicated in consequence of a revolutionary uprising, and crowned King of Hungary on June 8, 1867, when the ancient constitutional rights of that monarchy were re-established. The heir presumptive is the Emperor-King's nephew, Archduke Franz Ferdinand, born April 21, 1865, son of the late Archduke Karl Ludwig and Princess Annunciata, daughter of the former King of Naples.

The ministers for the whole monarchy at the beginning of 1899 were as follow: Minister of Foreign Affairs and of the Imperial House, Count Agenor Maria Adam Goluchowski; Common Minister of War, Gen. Edmund, Edler von Krieghammer; Common Minister of Finance, Benjamin de Kallay.

The Common Budget.—The cost of the administration of common affairs is borne by the two halves of the monarchy in a proportion settled by an agreement between the Austrian Reichsrath and the Hungarian Parliament. This agreement, called the *Ausgleich*, has been revised and renewed every ten years, but when the last period expired in 1897 the two legislative bodies were unable to reach an understanding. Negotiations were continued, and in the meantime the provisions of the last *Ausgleich* were continued temporarily as a *modus vivendi*. By this, after the proceeds of the common customs were deducted from the sum required, Hungary first paid 2 per cent. of the remainder, and then the balance was contributed by the two monarchies, the Austrian portion being 70 per cent. and the Hungarian 30 per cent. In 1898 the total sanctioned expenditure was 102,625,000 florins—the revenue from customs, 46,673,000 florins; Austria's contribution, 79,543,000 florins; Hungary's contribution, 36,409,000 florins. The budget estimates of revenue for 1899 were 132,000 florins from the Ministry of Foreign Affairs, 2,660,389 florins from the Ministry of War and Marine, 5,169 florins from the Ministry of Finance, and 164,378,382 florins from customs and matricular contributions—total, 167,175,940 florins. The estimated expenditures were 4,194,100 florins of ordinary and 80,100 florins of extraordinary expenditure by the Ministry of Foreign Affairs, 132,468,237 florins of ordinary and 11,217,014 florins of extraordinary expenditure for the army, 11,195,280 florins of ordinary and 5,746,000 florins of extraordinary expenditure for the navy, 2,126,404 florins of ordinary and 10,780 florins of extraordinary expenditure by the Minister of Finance, and 138,045 florins for the Board of Control.

The dual monarchy contracts no loans, but the general debt existing in 1867, of which 2,757,449,395 florins were outstanding in June, 1898, requires 126,284,091 florins annually for interest and amortization, which is divided between the two halves of the monarchy, Austria paying 95,973,852 florins and Hungary 30,310,839 florins. The common floating debt on June 30, 1898, amounted to 182,672,730 florins, of which amount 120,892,780 florins consisted of the common paper currency.

The revenue of Bosnia and Herzegovina for 1898 was estimated at 19,244,250 florins, more

than sufficient to cover the cost of administration, estimated at 19,185,820 florins.

The Army.—The period of service in the Austro-Hungarian army is three years in the line and seven years in the reserve. Those not drawn for active service are enrolled in the supplementary reserve, the Ersatztruppen, or in the Landwehr. After completing the whole term in the common army, the discharged soldiers are enrolled for two years in the Landwehr or national army, called the Honved in Hungary, and after that they can be called out for the defense of the nation as members of the Landsturm until they are forty-two years old. For those enrolled at once in the Landwehr at the age of twenty-one the period of service is twelve years. The Landwehr in time of peace is only called out periodically for instruction and exercise. The annual contingent for the common army is 59,211 in Austria and 43,899 in Hungary; total, 103,100. The annual contingent for the Landwehr is about 10,000 in Austria and 12,500 in Hungary.

The common army on the peace footing in 1898 had 3,738 officers and 3,843 men in the staff, 1,536 officers and 7,680 men in the military establishments, 9,454 officers and 177,109 men in the infantry, 1,874 officers and 45,506 men in the cavalry, 1,636 officers and 28,152 men in the field artillery, 412 officers and 7,760 men in the fortress artillery, 575 officers and 9,918 men in the pioneers, 79 officers and 2,854 men in the sanitary corps, and 393 officers and 3,253 men in the train. The Austrian Landwehr had 2,168 officers and 20,657 men in the infantry and 196 officers and 1,899 men in the cavalry; the Honved, 2,132 officers and 20,797 men in the infantry and 390 officers and 4,200 men in the cavalry. The total peace strength was 24,583 officers and 333,628 men, or 358,211 of all ranks, with 47,757 horses and 1,048 guns. The war strength is 45,238 officers and 1,826,940 men, with 281,886 horses and 1,864 field guns. The infantry is armed with the Mannlicher rifle, having a caliber of 8 millimetres and 5 cartridges in the magazine, the cavalry with the sabre and a repeating carbine, and the artillery with 9- and 7-centimetre bronze guns.

The Navy.—The fleet in 1899 consisted of 1 second-class and 7 third-class battle ships, 8 vessels for port defense, 1 first-class, 3 second-class, and 8 third-class cruisers, 12 gunboats, and 32 first-class, 31 second-class, and 8 third-class torpedo boats. Of the newer constructions, the most notable are the barbette ships Monarch, Wien, and Buda-Pesth, displacing 5,550 tons, with 10.6-inch Harveyized armor over the vital parts, armed with 4 9.4-inch, 6 5.9-inch quick-firing, and 14 47-millimetre quick-firing guns, with 4 torpedo tubes, and having engines of 8,500 horse power, capable of speeding 17 knots. A similar battle ship of 7,800 tons displacement is under construction, and one of 8,000 tons displacement has been begun. Built on the model of the cruiser Maria Theresa, launched in 1893, the larger Kaiser Karl VI, of 6,250 tons displacement, was launched in 1898, having 10.6-inch armor, engines of 12,300 horse power, giving a speed of 20 knots, and an armament of 2 9.4-inch, 8 5.9-inch quick-firing, and 18 other machine guns. The torpedo cruiser Zenta, lately launched, will be followed by another. The programme of construction, which follows out the original plan of a purely defensive fleet of the highest efficiency, provides for a total force of 15 armor clads between 6,000 and 9,000 tons, 7 second-class cruisers ranging between 4,000 and 7,000 tons, 7 cruisers between 1,500 and 2,500 tons, 15 torpedo gunboats, and 90 torpedo boats of the various classes.

Commerce and Production.—The total value of the special imports into the customs territory, including both monarchies and Bosnia and Herzegovina, was 755,300,000 florins in 1897, and the total value of exports was 766,200,000 florins. The values of the chief imports in the special commerce were 50,769,000 florins for raw cotton, 40,186,000 florins for cereals, 38,503,000 florins for wool, 31,382,000 florins for coal and fuel, 26,238,000 florins for coffee, 25,971,000 florins for tobacco, 22,110,000 florins for hides and skins, 21,427,000 florins for leather, 19,662,000 florins for machinery, 19,374,000 florins for metals other than iron, 18,932,000 florins for woollen yarn, 17,978,000 florins for wine, 14,218,000 florins for silk goods, 13,359,000 florins for eggs, 11,292,000 florins for silk manufactures, 11,240,000 florins for live animals, and 10,317,000 florins for cotton yarn. The values for the principal exports were 61,382,000 florins for sugar, 43,921,000 florins for eggs, 39,975,000 florins for cereals, 37,770,000 florins for lumber, 27,289,000 florins for timber, 26,857,000 florins for lignite, 25,174,000 florins for horses, 24,453,000 florins for malt, 22,428,000 florins for glassware, 20,335,000 florins for live animals, 18,464,000 florins for woollen goods, 17,033,000 florins for hides and skins, 16,208,000 florins for leather gloves, 9,787,000 florins for staves, 9,463,000 florins for feathers, 8,334,000 florins for shoes, 7,296,000 florins for beer, and 4,436,000 florins for wine.

The value of the gold and silver coin and bullion imported during 1897 was 99,867,028 florins; exports, 51,651,584 florins.

The amount of the trade in 1897 with the principal countries is shown in the following table, giving the values of the imports from and the exports to each country in florins:

COUNTRIES.	Imports.	Exports.
Germany	270,389,000	399,023,000
Great Britain	69,168,000	70,522,000
Italy	55,040,000	59,441,000
Russia	56,029,000	25,898,000
United States	55,755,000	16,804,000
Switzerland	22,775,000	31,943,000
British India	41,596,000	12,049,000
France	24,103,000	27,590,000
Roumania	18,680,000	26,363,000
Turkey	17,837,000	26,275,000
Servia	18,296,000	12,080,000
Brazil	20,665,000	1,822,000
Netherlands	9,598,000	11,461,000
Belgium	13,496,000	6,611,000
Egypt	6,516,000	10,029,000
Greece	9,153,000	5,414,000

The special imports of Hungary from all countries, including Austria, in 1897 were 554,814,000 florins in value; exports, 540,980,000 florins. The chief imports were cotton goods for 62,170,000 florins, woollen goods for 38,797,000 florins, clothing for 16,901,000 florins, wine in casks for 15,219,000 florins, silk goods for 12,295,000 florins, refined sugar for 10,742,000 florins, and coffee for 9,632,000 florins. The chief exports were wheat, barley, and maize for 84,379,000 florins, flour for 84,007,000 florins, cattle, pigs, and horses for 70,403,000 florins, wine in casks for 17,040,000 florins, cask staves for 10,456,000 florins, eggs for 8,125,000 florins, and wool for 7,150,000 florins. The imports from Austria were 428,756,000 florins, and exports to Austria 412,113,000 florins in value; imports from Germany were 27,665,000 florins, and exports to Germany 50,956,000 florins; imports from Great Britain were 5,025,000 florins, and exports to Great Britain 11,115,000 florins.

The export trade of Austria has been languishing for some time as the result of the active

competition of Germany and other countries. The merchants called upon the Government to adopt a vigorous commercial policy that would help them to secure fresh markets, especially in China, where other governments have actively supported the enterprise of their citizens. The Minister of Commerce responded by establishing subsidized commercial agencies abroad, working in connection with export syndicates at home. An industrial council, recently created to keep the Government in touch with the views and needs of the manufacturers, had failed to realize expectations. The Government in the naval estimates provided for the construction of new vessels in deference to the demands of the mercantile community for an increase in the navy. The chambers of commerce and industry bespeak more radical and wide-reaching reforms, such as the reduction of taxes on trade, the remission of duties on raw materials, discriminating railroad rates in favor of manufacturers and exporters, subventions and bounties, relaxed state control and supervision, the repeal of laws for the protection of labor, etc. One of the chief grievances of Austrian industrialists is the active interposition of the Hungarian Government for the purpose of building up industries at their expense. There are no such labor laws in Hungary as in Austria, no hampering legislation or heavy taxation affecting capital, and the Government, by offering special privileges and immunities, has endeavored to induce Austrian manufacturers to establish plants in Hungary. To attract the Vienna silk industry and the textile industries of Bohemia the Hungarian authorities have even offered subventions.

Navigation.—The number of vessels entered at ports of Austria during 1896 was 100,873, of 11,771,345 tons, and the number cleared was 100,856, of 11,774,758 tons. The Austrian merchant navy on Jan. 1, 1897, comprised 12,115 vessels, of 215,258 tons, of which 181, of 145,154 tons, were steam vessels and 11,934, of 70,104 tons, were sailing vessels. Of the total number 233, of 174,507 tons, were engaged in foreign commerce, 1,526, of 22,345 tons, were coasting vessels, and 10,336, of 18,406 tons, were fishing and other small craft.

The number of vessels entered at Hungarian ports during 1897 was 18,700, of 1,844,385 tons; cleared, 18,679, of 1,848,586 tons. The Hungarian commercial marine on Jan. 1, 1898, numbered 502 vessels, of 67,879 tons, and of these 70, of 45,630 tons, were steamers, while 432, of 22,249 tons, were sailing vessels. Of the total number 76, of 62,224 tons, were engaged in ocean commerce, 153, of 5,228 tons, in the coasting trade, and 273, of 427 tons, were fishing craft.

Railroads, Posts, and Telegraphs.—The state railroads in Austria had a length in 1897 of 4,594 miles; lines belonging to companies but operated by the Government, 933 miles; lines owned and operated by companies, 5,844 miles; total length, 10,438 miles. The total cost was 2,662,716,000 florins. The number of passengers transported in 1896 was 105,201,000; tons of freight, 100,000,000; receipts, 263,955,000 florins; operating expenses, 153,896,000 florins.

The state lines of railroad in Hungary on Jan. 1, 1898, had a length of 4,758 miles; companies' lines worked by the state, 3,268 miles; lines owned and worked by companies, 1,763 miles; total length, 9,784 miles. The total capital expenditure was 1,241,804,000 florins; number of passengers in 1897, 56,982,000; freight carried, 35,724,000 tons; receipts, 121,236,000 florins; expenses, 66,060,000 florins.

The Austrian post office in 1897 carried 809,770,210 letters and postal cards, 113,036,520 samples and books, and 95,533,400 newspapers. The receipts were 44,650,851 florins; expenses, 40,705,717 florins.

The Hungarian post office carried in 1897 letters and postal cards to the number of 236,825,000, 92,635,000 newspapers, 43,253,000 samples and book packets, 18,015,000 money and postal orders of the total value of 502,604,000 florins, and 18,114,000 parcels and money letters.

The telegraph lines of the Austrian Government had in 1897 a total length of 31,484 miles, with 92,052 miles of wire. The number of messages dispatched was 13,771,084.

The Hungarian telegraph lines had in 1897 a total length of 13,375 miles, with 64,515 miles of wire. The number of dispatches sent during the year was 13,390,578.

The New Ausgleich.—The commercial treaty between Austria and Hungary, which expired by limitation of time in 1897, has been continued provisionally pending the conclusion of a new treaty, or *Ausgleich*, which the Hungarians insisted should be made with the co-operation of the Austrian Reichstag, because the Hungarian Constitution makes the continuance of constitutional, parliamentary conditions in Austria a requisite for all treaty arrangements between the two halves of the dual monarchy. Aside from that, it was feared that any compromise reached with the Austrian Government acting under Article XIV of the Austrian Constitution—the emergency paragraph which empowers the Government to provide for the conduct of affairs by legislative decrees in case of a temporary interruption of parliamentary rule—might be upset afterward by the Reichstag when regular parliamentary government should be resumed. The dismissal of the Reichsrath on Feb. 1, 1899, when it was found that the deadlock could not be broken, almost put an end to hopes of making a new *Ausgleich* between the two Parliaments. Koloman Szell took the premiership in Hungary in May, with the mission of negotiating a temporary *Ausgleich* with the Austrian Government, to be confirmed by executive decree under the emergency paragraph if the consent of the Austrian Parliament could not be obtained. Naturally the Hungarian legislators demanded that under these conditions the financial and economic interests of Hungary should be protected to the utmost extent. Many of the provisions had already been arranged in previous negotiations. On the demand of Hungary it had been agreed that when the commercial treaties with Germany and other countries expire in 1903 new ones should only be concluded till 1907, when the *Ausgleich* would also expire, leaving Hungary then free to resume her commercial independence, if desirable, and make separate treaties with foreign countries in consonance with her individual interests. The sugar-bounty system was continued. The Hungarian Government now refused to continue the customs union with Austria longer than 1903, unless in the meantime the normal activity of the Austrian Reichsrath should be resumed and it should become possible to complete the arrangements between the two Legislatures, as provided for by the Constitution. The Austrian Government in accepting this hard condition argued that the charter of the Austro-Hungarian Bank should also be made to terminate in 1903. The Hungarian Government desired, on the contrary, to continue the arrangement with the common bank for ten years, and the Austrian ministry, after

carrying on prolonged negotiations, gave way on this point also.

Austria.—The legislative body is the Reichsrath, consisting of the Herrenhaus, or House of Lords, in which 19 princes of the imperial family, 9 archbishops, 8 prince bishops, 66 territorial nobles, and 153 life members have seats, and the House of Deputies, composed of 425 members, who are elected for six years, 85 by the territorial aristocracy, 118 indirectly by the towns, 21 by the chambers of trade and commerce, and 129 indirectly by the rural districts, and 72 directly by all male citizens of towns and rural communes who pay 4 florins a year in direct taxes or possess educational or other qualifications. The representation of the provinces is unequal, varying from 1 member to 29,694 inhabitants in Salzburg to 1 to 89,188 in Galicia. Lower Austria sends 46 members; Upper Austria, 20; Salzburg, 6; Styria, 27; Carinthia, 10; Carniola, 11; Triest, 5; Gorizia and Gradisca, 5; Istria, 5; Tyrol, 21; Vorarlberg, 4; Bohemia, 110; Moravia, 43; Silesia, 12; Galicia, 78; Bukowina, 11; Dalmatia, 11.

The Austrian ministry formed on March 7, 1898, was composed as follows: President of the Council and Minister of the Interior, Graf Franz von Thun-Hohenstein; Minister of Public Instruction and Ecclesiastical Affairs, Graf Bylandt-Reydt; Minister of Finance, Dr. J. Kaizl; Minister of Agriculture, Baron von Kast; Minister of National Defense, Field-Marshal Graf Zeno von Welsersheimb; Minister of Justice, Dr. J. von Ruber; Minister of Railways, Dr. H. Ritter von Wittek; Minister of Commerce, J. di Pauli, Baron von Treuheim; without portfolio, Ritter von Jedrzejewicz.

Area and Population.—The Austrian dominions have a total area of 115,903 square miles, with a population estimated at the end of 1896 at 25,249,203, comprising 12,467,738 males and 12,781,465 females. The number of marriages in 1897 was 202,936; of births, 968,280; of deaths, 646,620; excess of births, 294,952. The number of emigrants in 1897 was 37,215. Vienna, the Austrian capital, had 1,364,548 inhabitants at the last decennial census.

The emigration from Austria-Hungary in 1896 was 67,456 persons, of whom 45,327 went to North America, 11,389 to Brazil, and 220 to the Argentine Republic. In 1897 the total number of emigrants was 37,215. According to United States immigration statistics, 34,196 Austrians and 30,898 Hungarians arrived in 1896, 18,006 Austrians and 15,025 Hungarians in 1897, and 23,118 Austrians and 16,662 Hungarians in 1898. The term of military service is still three years in Austria-Hungary, and to avoid conscription about 30,000 young men escape over the border every year according to estimates of the military authorities. Most of them go to the United States, where there are believed to be over 100,000 men who should be in the army or the reserves. They pass the frontier by means of forged passports furnished by foreigners, who make a business of aiding their escape.

Finances.—The revenue of the Austrian Government in 1896 amounted to 741,442,000 florins, and the expenditure to 737,387,000 florins. For 1898 the budget estimate of revenue was 723,221,759 florins, and of expenditure 722,872,831 florins. The sanctioned estimates for 1899 make the revenue 760,754,838 florins, of which 767,600 florins are receipts of the Reichsrath and Council of Ministers, 1,412,109 florins are taken in by the Ministry of the Interior, 398,362 florins by the Ministry of Defense, 7,136,242 florins by the

Ministry of Education and Worship, 549,664,788 florins by the Ministry of Finance, 52,721,270 florins by the Ministry of Commerce, 129,828,620 florins by the Ministry of Railroads, 15,293,050 florins by the Ministry of Agriculture, 1,135,111 florins by the Ministry of Justice, 489,602 florins from pensions, subventions, etc., 1,057,080 florins from the state debt, and 851,000 florins from various sources. The total expenditure is estimated at 760,286,793 florins, of which 4,650,000 florins are for the imperial household, 78,307 florins for the imperial Cabinet, 2,568,231 florins for the Reichsrath and Council of Ministers, 23,300 florins for the Supreme Court, 126,102,876 florins for contributions to common expenditure, 28,142,972 florins for the Ministry of the Interior, 25,196,170 florins for the Ministry of Defense, 31,473,776 florins for the Ministry of Worship and Instruction, 131,681,228 florins for the Ministry of Finance, 49,783,310 florins for the Ministry of Commerce, 107,526,190 florins for the Ministry of Railroads, 19,357,914 florins for the Ministry of Agriculture, 29,210,791 florins for the Ministry of Justice, 175,500 florins for the Board of Control, 31,693,465 florins for pensions, subventions, etc., 171,929,683 florins for the state debt, and 633,080 florins for management of the debt.

Austria's special debt amounted on July 1, 1898, to 1,470,788,879 florins, of which 1,466,528,424 florins represent consolidated debt and 4,260,555 florins floating debt. The annual charge for interest and amortization of the special debt is 74,580,058 florins.

Political Affairs.—The conflict between the Germans and the Czechs made the parliamentary session at the beginning of 1899 a constant succession of broils and tumults. The German Opposition obstructed legislative business completely from the time that the Reichsrath met on Jan. 17. Motions were made to impeach the entire Cabinet. Interpellations regarding the treatment of German students at the University of Prague were made in an interminable succession and discussed at great length. When tired of talking the obstructionists demanded a roll call on every motion that they or the Ministerialists offered. The ministry withdrew all controversial projects of legislation, including the most important bills, in the hope of accomplishing some slight part of its programme, but the Opposition prevented anything from going through, and the German constituencies gave their hearty approval to this course of action. When the court at Prague decided that the language ordinances were constitutional, the Moderate members of the German party lost all the restraining influence that they had possessed. On Jan. 27 members of the warring parties came to blows when the Czech leader Kramarz, who was vice-president of the house at the time of the suspension of a sitting by gendarmes during the Baden administration, was interrupted in his speech with shouts of "Bring in the police!". The German factions, with the exception of the Pan-Germanic group, met to formulate their demands, and these were utterly irreconcilable with the minimum claims of the Czechs. The Government had hoped to renew the *Ausgleich* with Hungary. The Hungarian Diet till now had insisted that the new *Ausgleich* must be arranged between the two Parliaments, and the provisional extension of the old one could not be prolonged beyond the current year. The Government was compelled, however, to resort once more to the application of Article XIV of the Constitution, by which the government

can be carried on by decrees. Not only was the minority strong and aggressive, but the majority divided and wavering, so that in a snap vote the ministry found itself actually in a minority of one the day before it closed the session. The chances of a truce between the rival nationalities did not improve after the return to the mild absolutism of Article XIV, although the Social Democrats were the only ones who cried out against the reactionary and despotic character of this provisional method of government, now become chronic. The Poles and the German Clericals, who formed part of the Government majority, were growing restive under the control of the Czechs before the prorogation, and yet these, although the members of the German party who a year or so before were in favor of compromise were now united with the extremists against any concession, became more exorbitant in their demands, exciting the resentment even of the lesser nationalities, such as the Slovenes and the Italians. The Germans, as a matter of policy, were not willing to accept a compromise favorable to themselves in the language question, even if such could be obtained from the Government after prorogation, because the language ordinances were ordinary administrative decrees, but if new ones were issued while Article XIV was in force it would require an act of Parliament to repeal them. The Pan-Germanic party, headed by Herr Schönerer, began to extend its influence among the hitherto loyal Catholic peasantry, who were incensed against their Clerical leaders and the Catholic hierarchy on account of their political alliance with the Czechs. The movement took the form of wholesale conversions to the Protestant Evangelical and the Old Catholic faiths. Many of those that renounced the Roman Catholic faith for political reasons under the lead and direction of the Pan-Germanic leaders, who kept a list of persons ready at the opportune moment to announce their conversion to Protestantism, were still loyal to the dynasty, and were not ready to follow these in their ultimate plans for the separation of the German provinces from Austria and their annexation to the German Empire. The German Government gave no countenance to the Austrian separatists' designs, and prevented their finding an echo in Germany; but the conversions to Protestantism were openly aided and encouraged by the Evangelical community in Germany, although the High Consistory of the Evangelical Church in Austria adopted a hostile attitude toward the movement. There were numerous conversions in January in Linz, the chief town of Upper Austria, and more in succeeding months. In northern Bohemia a large number of German Catholics changed their religion on national grounds. The cry of "Away from Rome!" was taken up in Gratz, the capital of Styria, where not 1 per cent. of the population were Protestants. Although aristocratic ladies placed obstacles in the way of a meeting that was announced to be held in a public hall, a large assemblage gathered eventually to hear O'd Catholic orators preach emancipation from Rome, until the proceedings were stopped by the police, because one of the speakers spoke of the Old Catholic movement as an expression of the spirit of German nationalism. The Peasant League of the Alpine provinces, which combined a general Agrarian programme with certain German Nationalist features, such as the adoption of German as the language of the state, a customs union with Germany, a merely personal union with Hungary, and the exclusion from Austria of Galicia, Buko-

wina, and Dalmatia, which would be erected into autonomous provinces, thus relieving the finances of the Austrian state, was suppressed by the Statthalter of Gratz on the ground that it had enrolled German subjects as members. This league was founded to resist the absorption of the small farms by the great landholders, who in upper Styria convert them into game preserves. The agitation, which was started by Baron Rokitsansky, a member of the Styrian Diet, spread through Styria, Salzburg, Upper Austria, and the German districts of other provinces wherever the peasant proprietors, whose freeholds were already heavily mortgaged, were so reduced by the general agricultural depression that thousands of farms were sold under the hammer every year. The denunciation of the league by the priests had created a prejudice against the clergy among the peasantry, and gave occasion for the adoption of the Old Catholic creed by Catholics who had no other grounds, either religious or national, for abandoning the faith to which they were as deeply attached as the priests themselves. The policy of making concessions to the Slavs at the cost of the Germans in other parts of Austria caused profound mortification even in the Tyrol, the most loyal of the Austrian provinces, where there is no Slav element. The same policy produced a similar effect among the Austro-Italian population of the coast lands. Political radicalism also gained ground in all parts of the country, and the growing distress of the peasantry made them accessible to the Social Democratic propaganda, which was not a serious danger to political institutions so long as it was confined to the industrial population. The Socialists had worked hand in hand with the anti-Clerical element in the last elections in Styria. The Government intended to issue a new decree regulating the language question under paragraph 14, but the reception of an announcement to that effect discouraged such an attempt. The Diet of Lower Austria passed a resolution approving the language ordinances as an absolute necessity in the interest of the Germans and in that of Austria, but rejecting all attempts to settle the language question through any channel but the laws of the empire. When the provincial Diet of Bohemia met on March 14 the German members remained absent. The Tyrolese Diet passed German Nationalist resolutions. In the first quarter of 1899 there were 2,600 renunciations of the Roman Catholic faith, and in succeeding months changes of religion took place at an increasing rate, but by summer the movement seemed to have spent its force. The religious movement was not a new manifestation in Bohemia, where religion and politics have already been interwoven. When the Germans controlled the Government in Austria under the Auersperg ministry many Czechs embraced the Russian Orthodox religion and built a Russian church in Prague. The Catholicism of the Czechs is of a very liberal stripe, and some of the lower clergy, preserving the Hussite tradition, have habitually been in opposition to the higher episcopal authorities. The Thun ministry has authorized the erection of a statue to John Huss in Prague to please a popular demand among the Czechs, although the Taaffe and Badeni Cabinets and the previous Liberal Cabinets, out of consideration for the Catholic clergy, refused to sanction this glorification of the Protestant national hero of the Czechs. The Germans of Bohemia have shown such indifference in religious matters that a change of faith for political reasons is an easy process for them.

Many of the Czechs, as well as the Germans, adopted the Old Catholic faith in its early days because the Old Catholics permit the marriage of the clergy and hold services in Czech or German instead of in Latin. The conversion of German Catholics to Protestantism began when the Taaffe Government granted the first concessions to the Czechs, especially when liberty of conscience in the schools was restricted in 1889. The manifestation was only sporadic at that time, but in 1899 it spread throughout the province, and whole villages went over to Protestantism. The action of the Government in canceling a grant of the anti-Semitic municipal council of Vienna of funds for the erection of a Catholic church, as well as the movement for emancipation from Rome, gave occasion for a conference of Catholic bishops at Vienna early in April, in which some of the lay Clerical leaders were permitted to take part. The highest administrative authority had, to the consternation of the Ultramontanes, declared grants of municipal funds for religious purposes to be illegal. The bishops at the conference requested the Government to transfer to the episcopacy the disposal of ecclesiastical funds. They also appealed to the Minister of Education to curb the school-teachers, who were alleged to have assumed an attitude of hostility toward the Roman Catholic Church. The Clericals bitterly reproached the Protestants for admitting as proselytes such converts as Herr Wolf, one of the Pan-Germanic leaders, and others of that party, whose ostentatious change of faith was only a demonstration in favor of the disruption of the empire. The Protestant movement extended even to Goritz, where numerous conversions took place among the Italian and Slovene population of the town. Roman Catholic Ruthenian students in Bukowina began to change their religion, in order to show their anti-Polish sentiments and leanings toward Russia, becoming members of the Greek Church.

In Hungary also, because the archbishop refused to employ the old Slav liturgy and many of the clergy lent themselves to the Magyarizing purposes of the Government, many Croatian Roman Catholics abandoned their traditional faith to join the Greek Orthodox community. The episcopacy, warned by the Protestant movement, became more chary in granting favors to the Czechs in the German provinces. There had been conversions even in Vienna, and when the Czechs desired to have services performed by their own priests for their countrymen in the capital the request was refused. The institution of a seminary for German priests in Silesia evoked clamorous remonstrances from both the Czechs and the Poles, although it is a standing grievance of the German Catholics that there are too few priests of their nationality. In Galicia, where the clergy assail the Social Democrats with extreme bitterness and accuse the teachers in the state schools of propagating irreligion, a Catholic congress at Lemberg was mobbed on May 14, necessitating the intervention of the military. The economic condition of Austrian Poland has long been such as to give cause for popular discontent, and it can be largely traced to negligence and nepotism in the semi-autonomous provincial administration, while the slackness of the educational laws has retarded the intellectual progress of the people and the indifference of the aristocracy to their welfare has turned them into sullen revolutionists. The peasant revolt toward the end of 1898, while ostensibly directed against the Jews, was in reality a protest against the permanent poverty of

the agricultural population. The landowners themselves are deeply in debt. In the early part of 1899 the Galician savings bank at Lemberg was found to be insolvent, owing to gross mismanagement, and the Diet had to make good the deficit out of the public funds to prevent a catastrophe. The German Liberal Opposition withdrew from the Diet of Lower Austria, leaving the Anti-Semitic Clerical majority in full possession. The exasperation of the socialistic working classes at the reactionary policy of the Government and the continuance of government under the emergency paragraph of the Constitution led them into noisy demonstrations and violent conflicts with the police at variance with their usual respect for order. With the clergy and the feudal nobility in control of the Government and absolutism in force, it seemed to them as though the times of Metternich were come again. A meeting of the Social Democratic party at Gratz to protest against a bill restricting municipal suffrage enacted by the Clerical Anti-Semitic majority of the Lower Austrian Diet having been broken up by the authorities on July 2, the audience mobbed the commissary of police and paraded noisily through the streets in defiance of the gendarmes who attempted to stop them. The Anti-Semitic burgomaster of Vienna was frequently threatened with violence, and conflicts occurred almost daily between the Socialists and the Anti-Semites. A violent conflict between Germans and Czechs took place in August at Cilli, Styria, where the Slovenes had arranged a Slav festival of fraternization, but the Germans drove out the Czechs who came to attend it. After a new *Ausgleich* with Hungary was concluded and promulgated in virtue of paragraph 14 and a heavy additional duty was laid on sugar the popular agitation against the Government became more uncontrollable in spite of press confiscations and the suppression of public meetings. The Socialists organized demonstrations in Vienna, Gratz, and other towns, in which cries for a republic were heard. The raising of the sugar duty from 12½ to 20 kreutzers a kilogramme and the prohibition of the sale of saccharine, a substitute much used by the poor, roused discontent even among the Czech working people. The Germans and Liberals encouraged and supported the Socialist demonstrations, and even the Anti-Semites echoed the outcry against this oppressive tax. In some of the manufacturing centers women took part in the street demonstrations, an unwonted spectacle in Austria. Hundreds of newspapers were suppressed because they denounced the imposition of the sugar duty without the sanction of Parliament as unconstitutional. Municipal councils and chambers of commerce gave their approbation to the agitation against the Government. In Salzburg blood was shed in conflicts between the populace and the military, which lasted several days. Risings occurred in Carinthia at Klagenfurt. In northern Bohemia many Germans were wounded, and some were killed in riots at Graslitz and Asch. On Sept. 23 the ministers resolved to resign in a body.

Hungary.—The Hungarian Parliament consists of a House of Magnates, in which 18 archdukes, 228 nobles, 44 archbishops, bishops, and other prelates of the Roman and Greek churches, 12 representatives of the Protestant communities, 70 life members appointed by the King or chosen by the house, 17 official members, and 3 delegates of Croatia-Slavonia, and the House of Representatives, composed of 453 members, 413 elected in Hungarian and Transylvanian towns

and rural constituencies and 40 delegates of Croatia-Slavonia. All male citizens of the age of twenty or upward who pay a certain low tax on house property, land, or income, or who have an educational qualification, are entitled to vote, the number of electors being about 1 in 18 of population.

The Cabinet of Ministers, constituted Jan. 15, 1898, was composed as follows: President of the Council and Minister *ad latus*, or near the King's person, *ad interim*, Baron Desiderius Banffy; Minister of Finance, Dr. Ladislav de Lukacs; Minister of National Defense, Baron Geza Fejervary; Minister of the Interior, Desiderius de Perczel; Minister of Education and Ecclesiastical Affairs, Dr. Julius de Wlassics; Minister of Justice, Dr. Alexander Erdelyi; Minister of Industry and Commerce, Baron Ernest de Daniel; Minister of Agriculture, Dr. Ignatius de Daranyi; Minister for Croatia-Slavonia, Emerich de Josipovich.

Area and Population.—The Hungarian dominions, inclusive of Croatia and Slavonia, have an area of 125,039 square miles, with a population of 17,463,791 at the census of 1890. The number of marriages in 1897 was 151,176; of births, 765,436; of deaths, 529,020; excess of births, 219,077. About 51 per cent. of the population are Roman Catholic, 15 per cent. Greek Oriental, 10 per cent. Greek Catholic, 13 per cent. Calvinist, 7 per cent. Lutheran, and 4 per cent. Hebrew. Buda-Pesth had 617,856 inhabitants in the beginning of 1897.

Finances.—The revenue of the Government in 1897 was 556,964,000 florins, of which 511,082,000 florins were ordinary and 45,882,000 florins extraordinary receipts. The ordinary expenditure was 455,492,000 florins; transitory expenditure, 13,228,000 florins; investments, 70,019,000 florins; extraordinary expenditure, 9,392,000 florins; total, 548,131,000 florins. The total revenue for 1898 was estimated to be 498,775,291 florins, and the total expenditure 498,726,570 florins. The budget estimates for 1899 made the ordinary revenue 482,464,037 florins and the extraordinary revenue 20,839,566 florins; total, 503,303,603 florins. Of the ordinary revenue 1,502,241 florins come from the public-debt account, 1,000 florins from the Ministry *ad latus*, 3,641,888 florins from the Ministry of the Interior, 329,717,648 florins from the Ministry of Finance, 126,342,382 florins from the Ministry of Commerce, 18,091,211 florins from the Ministry of Agriculture, 1,820,667 florins from the Ministry of Instruction and Worship, 991,956 florins from the Ministry of Justice, and 355,044 florins from the Ministry of National Defense. The total ordinary expenditure for 1899 was estimated at 460,005,399 florins, transitory expenditure at 15,869,462 florins, investments at 27,389,585 florins; total, 503,264,446 florins. Of the ordinary expenditure 4,650,000 florins were required for the civil list, 78,307 florins for the Cabinet chancery, 1,783,966 florins for the Legislature, 28,318,076 florins for the matricular contribution to common expenses of the empire, 23,203 florins for the common pension fund, 9,044,927 florins for Hungarian pensions, 128,913,726 florins for the national debt, 13,671,340 florins for debts of guaranteed railroads acquired by the state, 293,028 florins for guaranteed railroad interest, 2,947,313 florins for other debts, 8,291,790 florins for the administration of Croatia, 153,135 florins for the Accountant General's office, 200,517 florins for the law courts, 482,815 florins for the Minister Presidency, 74,236 florins for the Ministry *ad latus*, 44,530 florins for the Ministry for Croatia,

19,600,367 florins for the Ministry of the Interior, 88,487,768 florins for the Ministry of Finance, 86,860,961 florins for the Ministry of Commerce, 19,769,585 florins for the Ministry of Agriculture, 13,111,264 florins for the Ministry of Public Instruction and Public Worship, 16,694,141 florins for the Ministry of Justice, and 16,450,404 florins for the Ministry of National Defense.

The consolidated debt of Hungary at the end of 1897 was 1,089,033,000 florins; annuities, 1,058,740,000 florins; treasury bonds, 14,891,000 florins; debts of the ministries, 65,214,000 florins; arrears unpaid, 250,067,000 florins; total indebtedness, 2,477,945,000 florins.

Cabinet Crisis.—The Clerical and Conservative Opposition in the Hungarian Parliament, supported by the dissident Liberals, prevented the transaction of any legislative business in the early part of 1899 by means of obstructive tactics with the object of forcing Baron Banffy to retire, as Dr. Wekerle, the preceding Prime Minister, had been compelled to lay down his office by machinations of the same parties. The present deadlock was not only demoralizing in a political sense and a blot on the fair fame of Hungary as one of the model parliamentary states of Europe, but it had even an injurious effect on the hitherto flourishing Hungarian trade and industry. The dissenting Liberals, under the lead of M. Szilagyi and Count Julius Andrássy, had placed themselves in opposition to the Government on account of the *lex Tisza*, an enactment of Parliament giving the Government some degree of arbitrary authority in the event of the breakdown of parliamentary government, but not to the extent of the emergency paragraph of the Austrian Constitution. The Clericals desired the repeal of the civil-marriage act and other religious legislation of recent Liberal Cabinets, and objected to Baron Banffy as a Protestant and the foremost exponent of the policy of which such legislation was the outgrowth. Both they and the Liberal seceders accused the Premier of having connived at electoral corruption in the last elections. A motion was presented in the Chamber of Magnates, where the Conservatives have a majority, to solicit the exercise of the royal prerogative in putting an end to the extra-constitutional condition prevailing, but even the bishops voted against such an attempt to exert pressure on the Crown. Some of the chief men in the Clerical Conservative party, as well as the dissident Liberals, were disposed to abandon the policy of obstruction and come to terms with the Liberals in order to allow useful laws to be made on an *Ausgleich* settled with Austria, demanding only that Baron Banffy should withdraw from the ministry. Negotiations were begun in January, and were continued until the various sections of the Opposition pledged themselves not to obstruct the passage of certain urgent measures in the ministerial programme. On Feb. 23 Koloman Szell, an ex-minister, who had stood aloof from recent political conflicts until he was called to the aid of Baron Banffy to act as mediator in effecting a compromise with the Opposition, and had, as his chosen successor, taken part in the negotiations with the Austrian Government over the *Ausgleich*, took his place at the head of the Cabinet. The new ministry was constituted as follows: President of the Council and Minister of the Interior, Koloman Szell; Minister of Finance, Dr. Ladislav de Lukacs; Minister of National Defense, Baron Geza Fejervary; Minister of Education and Worship, Dr. Julius de

Wlassics; Minister of Justice, Dr. A. Plosz; Minister of Commerce, Dr. von Hegedus; Minister of Agriculture, Dr. Ignatius de Daranyi; Minister for Croatia and Slavonia, Emerich de Josipovich. The Liberal party was strengthened by the accession of a part of the Nationalists, a section of the Opposition, which, without aiming at complete severance from Austria, as do the Kosuthites, would have the bond little more than a personal union. Their adhesion was the sign of a recession from the rigid secularist principles of the Tisza group, almost the last of whose representatives the Clericals, with whom the Nationalists had voted on the civil-marriage question, had now succeeded in driving out of the Cabinet. However, in a bill for the more effectual repression of electoral corruption a paragraph was inserted for the purpose of preventing the clergy from exercising illegitimate influence upon voters. Against this clause, in accordance with which the delivery of electoral addresses from the pulpit or the exhibition of the cross or other religious emblems at electoral meetings or polling places is sufficient to render an election invalid, the Ultramontane Clericals, under the lead of the Abbot Molnar, made a vigorous fight.

The Navigation of the Danube.—The Hungarian Government decided to impose a toll on the tonnage passing through the Iron Gates of the Danube. The Austrian and German merchants objected to the levying of such a toll, predicting that it would compel the grain trade to take the sea route. The Austrian Government

and the other riparian states of foreign governments raised a protest, in consequence of which the collection of the toll, which was to begin on May 1, was postponed, and a further investigation was promised before a final decision should be taken. The decision to confirm the tariff was announced in July, and it went into force on Sept. 1, together with regulations for the passage of vessels through the Iron Gates. The tariff is 10 kreutzers per registered ton, in addition to 9 kreutzers for every 100 kilogrammes of cargo.

Bosnia and Herzegovina.—Under a clause of the Treaty of Berlin, signed July 13, 1878, the Austro-Hungarian Government occupied the Turkish provinces of Bosnia and Herzegovina and the sanjak of Novi-Bazar, and took over the civil administration of the two provinces, which is conducted in the name of the Emperor-King by the provincial government, divided into the departments of finance, internal affairs, and justice, under the direction of the Bosnian bureau of the imperial Minister of Finance. The population of the provinces was 1,568,092 in 1895, comprising 828,190 males and 739,902 females. In religion 673,246 are Orthodox Oriental, 548,632 Mohammedan, 334,142 Roman Catholic, 8,213 Jewish, 3,596 Evangelical, and 263 of various faiths. Except the Arnauts of the south and gypsies scattered through the country, the people are of the Servian race. The chief crop is tobacco, of which the Government has the monopoly. Dried prunes, beet sugar, and cattle are also exported. There are 431 miles of railroad.

B

BAPTISTS. The statistical tables of the Baptist churches in the United States, published in the American Baptist Yearbook for 1899, give the following numbers: Of associations, 1,633; of churches, 42,893; of ordained ministers, 28,409; of church members, 4,141,995; of Sunday schools, 24,619, with 183,338 officers and teachers and 1,726,693 pupils; of meeting houses, 18,802, with seating capacity for 2,640,066 persons; of parsonages, 1,571; increase by baptism during the year, 203,296; increase by experience and restoration, 46,941. Amount of contributions (so far as reported): For church expenses, \$9,160,319; for Sunday-school expenses, \$524,830; for State missions, \$299,536; for home missions, \$325,295; for foreign missions, \$446,614; for Bible and publication work, \$48,308; for education, \$109,027; miscellaneous contributions, \$1,021,508; total amount of contributions, \$11,927,851. Value of church property, \$83,942,243.

The 7 theological institutions returned 71 instructors and 1,100 students; 92 universities and colleges, 1,565 instructors and 23,601 students; 80 academies, seminaries, and institutes, 604 instructors and 10,433 students. In all these institutions 2,453 persons were studying for the ministry. Incomplete reports and estimates gave the theological seminaries \$2,022,662 of property, \$2,360,257 of endowment funds, and 135,883 volumes in their libraries; the universities and colleges \$22,728,760 of property, \$14,271,818 of endowments, and 873,436 volumes in libraries; and the academies, seminaries, and institutes, \$3,604,972 of property, \$1,265,158 of endowments, and 85,110 volumes in libraries.

The Yearbook gives lists of 34 Baptist charitable institutions having \$1,025,121 of property, and 127 weekly, monthly, quarterly, annual, and

special periodicals, including some in the German and Scandinavian languages.

The table of Baptists in the World gives for North America (including the United States, Canada, Mexico, Central America, and the West Indies) 44,148 churches, 29,180 ordained ministers, 4,285,093 members, and 208,976 baptisms during the year; for Europe (including Great Britain, Austria-Hungary, Belgium, Denmark, Finland, France, Germany, Holland, Italy, Norway, Roumania and Bulgaria, Russia and Poland, Spain, Sweden, and Switzerland), 4,020 churches, 3,209 ordained ministers, 478,268 members, and 23,141 baptisms; for Asia (including Ceylon, China, India, Assam and Burmah, Japan, and Palestine), 1,602 churches, 852 ordained ministers, 119,745 members, and 8,178 baptisms; for Africa (including Central Africa and the Congo, South Africa, West Africa, and St. Helena and Cape Verde), 111 churches, 129 ordained ministers, 6,700 members, and 810 baptisms; and for Australasia, 236 churches, 169 ordained ministers, 19,261 members, and 1,252 baptisms; total for the world, 50,143 churches, 33,553 ordained ministers, 4,910,450 members, and 242,646 baptisms during the year, showing an increase over 1898 of 921 churches, 1,501 ministers, 111,332 members, and 6,312 baptisms.

Publication Society.—The seventy-fifth annual meeting of the American Baptist Publication Society was held at San Francisco, Cal., May 25 and 26. The annual report showed that the aggregate of sales for the year had been \$643,400, being a decrease of \$26,682 from the previous year. In the missionary department the receipts from invested funds and contributions by churches and individuals had been \$121,443. A deficit of \$8,464 existing at the beginning of the year had

been met from the proceeds of the gift of Mrs. Mercy M. Gray, deceased; but the income of the department had not been equal to its expenses, and another deficit of \$3,114 had been incurred.

A review of the seventy-five years' work of the society showed that 2,788 books, pamphlets, periodical tracts, etc., had been issued, and that the total amount received by the department from the beginning had been \$14,353,390. The profits accruing from publications had been applied in two directions—to the creation of a reserve or sinking fund for provision against contingencies, and to the missionary department, in behalf of whose work \$250,000 had been spent. Thirty-seven hundred and ninety agents, colporteurs, Sunday-school missionaries, and chapel-car workers had been engaged in the service of the society, through whose instrumentality 11,215 Sunday schools had been organized, 1,300 churches constituted, and 27,231 persons baptized. Resolutions were passed by the meeting expressing gratification at the complete agreement between this and the Home Mission Society concerning the prosecution of their respective works; rejoicing at the evidences of blessing upon the chapel-car work, urging a vigorous prosecution of the Bible work, and expressing sympathy "with all lovers of law, order, and decency" in efforts to prevent the seating of Brigham H. Roberts as member of the national House of Representatives from Utah.

Education Society.—The eleventh annual meeting of the American Baptist Education Society was held at San Francisco, Cal., May 24 and 25. It was represented in the report that there had been during the year a revival of activity for the endowment and better equipment of the higher institutions of learning. Grants had been made to 6 institutions, aggregating \$157,000, conditioned on their securing \$415,800 additional. Acadia University, Nova Scotia, had completed its effort to secure \$60,000 as a condition of the society's grant of \$15,000 in the previous year. On the second day of the meeting of the society a conference was held on the establishment of a theological seminary and other educational institutions in the Pacific States. An educational policy was approved, contemplating a united effort of the whole Pacific coast for the establishment of one theological seminary, two colleges—one on the north coast and one in California—for each of which an endowment of at least \$100,000 is aimed at. The American Baptist Education Society was invited to consider a plan of co-operation under which it should for a definite term of years give one dollar for every dollar raised by an institution approved by the Pacific Coast Convention to go toward constituting an irreducible endowment; the money, if the society prefers, to be held by it as a trust until the school has an endowment fund of \$100,000 if a college, or of \$50,000 if an academy.

Home Mission Society.—The sixty-seventh annual meeting of the American Baptist Home Mission Society was held in San Francisco, Cal., May 30 to June 1. The annual report showed that the debt of about \$14,000, with which the society had begun its fiscal year, April 1, 1898, had been paid, and there was now a surplus in the treasury of \$40,890, of which \$35,000 had been set aside as an emergency fund. The total receipts for the year had been \$461,802; the expenditures had been \$415,255. One thousand and ninety-two missionaries and teachers had been employed in whole or in part by the society—viz., 43 in the New England States, 84 in the Middle and Central States, 201 in the Southern States, 722 in the

Western States and Territories, 17 in Canada, 19 in Mexico, 2 in Alaska, 2 in Cuba, and 2 in Puerto Rico. Of the whole number, 300 missionaries and 12 teachers had been employed among the foreign population; 55 missionaries and 190 teachers among the colored people; 22 missionaries and 27 teachers among the Indians; 13 missionaries and 8 teachers among the Mexicans; 2 teachers among the Mormons; and 504 missionaries among Americans. The society aided in the maintenance of 31 schools established for the colored people, Indians, and Mexicans. The missionaries returned a total church membership of 52,755, 57 churches organized during the year, 1,151 Sunday schools under their care, with an aggregate attendance of 72,908 and \$87,782 of contributions.

A conference had been held in Washington, Nov. 23, 1898, between representatives of this society and those of the Home Mission Board of the Southern Baptist Convention, respecting the relations of the two bodies in Cuba and Puerto Rico, and concerning the adjustment of sectional divisions in Oklahoma and the Indian Territory. A resolution was passed expressing the sense of the conference that there should be harmony among the Baptist workers in the Indian Territory and Oklahoma, and recommending that the secretaries of the Home Mission Board and of the Home Mission Society visit those Territories and seek a basis for such harmony, with authority to associate with themselves brethren from neighboring States as advisers. A correspondence was afterward had with the corresponding secretary of the Southern Home Mission Board. Doubts were expressed by him as to the value of the visit to the Territories, and he intimated that the only solution of the question was for the Home Mission Society to withdraw its mission force from the region, and that New Mexico and Arizona should be surrendered to the Home Mission Board of the Southern Baptist Convention. Reply was made that the Home Mission Society, after fifty years' work in that region and the expenditure of half a million dollars, or about ten times the expenditure of the Southern Home Mission Board, was not prepared to consent to such an arrangement, and a plan of co-operation between the two organizations in their work in those Territories was submitted for consideration. Negotiations were terminated by the reply of the corresponding secretary of the Southern Home Mission Board that further correspondence on the subject was undesirable.

Co-operative work had been instituted with the Baptist City Mission of Chicago and with the Baptists of Detroit, Mich., with promise of excellent results; and conferences had been held with the Baptists of Buffalo, St. Louis, New York, and Brooklyn, in which definite conclusions had not yet been reached.

Missionary Union.—The eighty-fifth annual meeting of the American Baptist Missionary Union was held at San Francisco, Cal., May 29 and 30. The total receipts for the year had been \$520,995, of which sum \$103,389 had been contributed through the four Woman's Baptist Foreign Missionary Societies, and \$3,014 through the conference of German Baptist churches. The financial outcome, the Executive Committee represented in its report, had again proved disappointing, although in no previous year had more strenuous efforts been put forth to increase the income of the society. The books, when they were closed, March 31, showed a deficit of \$54,384. The year's work had been paid for, indeed, and the debt of the year 1897-'98 had been diminished by \$14,000;

but this amount of income could not be regarded as a satisfactory basis for the maintenance of the work on the scale now existing. The missions were suffering at every point, having for six years been held back from the normal advance. Only 13 new missionaries had been commissioned during the year, and the whole number now in service was less by 20 than it was four years ago. In regard to pushing missions into new fields, such as Cuba, Puerto Rico, Hawaii, and the Philippine Islands, an agreement had been made with the various foreign mission boards of the United States to proceed with due regard to the principles of comity. As to relations with sister Baptist societies, it had been early deemed important that a division of territory should be agreed upon. Accordingly, a joint committee of the Missionary Union and the American Baptist Home Mission Society had met in the fall of 1888, at New Haven, Conn., and agreed that the West Indies should be considered the legitimate field for home mission work, and the Philippine Islands and other fields contiguous to the Asiatic missions a legitimate field for foreign mission work. Among the noteworthy events of the year in existing missions were the addition of an Anglo-vernacular department to the Burman and Karen departments of the theological seminary at Insein and the opening of a new station among the savage people of the North Chin hills in connection with the Burman mission; continued numerous accessions to the churches in China; the prosecution of missionary work among the aborigines of Formosa by a native society recently organized at Sendai, Japan; and the acquisition of property at Sumba, on the Congo, from the Advent Missionary Society, which had retired from the region; while the station at Bolengi, on the Congo, had, in the reorganization of the mission, been transferred to the Foreign Christian Missionary Society.

Women's Societies.—The Women's Baptist Home Mission Society held its annual meeting at San Francisco, Cal., May 24. The annual report showed that 144 missionaries had been employed during the whole or a part of the year at 90 stations in the United States and 2 states of Mexico. The Baptist Missionary Training School had enrolled during the school year 49 students, of whom 14 were in the senior or graduating division. Work had been successfully prosecuted in the missionary training departments for colored workers in connection with Shaw University in North Carolina and Bishop College in Texas.

The twenty-first annual meeting of the Woman's American Baptist Home Missionary Society (Boston) was held in Portland, Me., May 4. The receipts for the general work had been \$36,663, and the expenditures \$35,733. For Alaska the receipts had been \$3,675, and the expenses \$4,752, the deficiency being supplied out of the general treasury.

The thirty-ninth annual meeting of the Woman's Baptist Foreign Missionary Society was held at Manchester, N. H., April 18 and 19. The treasurer reported that the total receipts of the society had been \$78,917, and the expenditures \$92,545. The net deficit, after supplying \$3,300 of the total deficit from the contingent fund, was \$10,328. The society had employed 69 missionaries in the foreign field, and had 4 young women under appointment. It sustained 390 schools, with 13,328 pupils, employed 169 Bible women, and returned 706 baptisms during the year. The report spoke of aid given to churches in Paris, France; a few stations in Burmah occupied only by women, and aggressive work carried on in all

the stations of that country; of hospital and dispensary work at Nellore and Nalgonda, India, and Banza Manteka, Africa; and of various features in the schools in India and Burmah. Kindergartens had been added to a number of mission stations.

The Woman's Baptist Foreign Missionary Society of the West at its annual meeting in 1898 returned its total receipts for the year as having been \$58,607. The report of the Home for Missionaries' Children showed receipts amounting to \$2,015, and expenditures to \$1,307. The society had 39 missionaries in Burmah, Assam, India, China, and Japan; 43 mission schools, with 113 teachers and 1,975 pupils; 66 Bible women; and 41 persons under training, with 264 baptisms reported during the year.

Young People's Union.—The ninth annual convention of the Young People's Baptist Union of America was held at Richmond, Va., July 12 to 16. Mr. John H. Chapman presided. The report of the Board of Managers represented the society as being in the third stage of its existence—the periods of the unbounded enthusiasm of a new organization and of the reaction from it having passed and the work being now to be carried on by those who are earnest and of set purpose. The past year had brought advance in some directions. The educational work was proving to be the strength of the movement. The number of examination papers in the Christian Culture Course (15,000) was larger than ever before, the increase having been mostly among the juniors, while the number of papers from seniors had fallen off. An inquiry into the subject had shown that only a limited proportion—about 180 out of 500 who pursued the course with considerable regularity and perseverance—were represented in the examination papers. A change was announced in the "Bible Readers' Course," by which in the daily Bible readings the accompanying brief comments on the several books will be replaced by a careful and comprehensive analysis of the book read and a summary of its essential religious teachings. The union was laboring under financial difficulties, for, while it was meeting its expenses, it could only make slow progress in paying its debts. The receipts and expenditures for the year were balanced at \$66,916.

Southern Baptist Convention.—A statistical table published in connection with the reports of the Southern Baptist Convention showed that there were in the region contributing to the societies of that body 18,701 churches, with 1,644,363 members; and that their contributions amounted to \$109,267, or \$14,982 less than in the previous year.

The forty-fourth meeting of the Southern Baptist Convention was held at Louisville, Ky., beginning May 12. Judge Jonathan Haralson, of Alabama, who had presided over the deliberations of the convention for ten years, declining a re-election, the Hon. William J. Northen, ex-Governor of Georgia, was chosen president. The Foreign Mission Board reported that a larger number of converts had been baptized during the past than in any previous year in its history. The total amount of contributions had been \$109,267, against \$124,249 in 1897-'98. All obligations had been met, and the board was out of debt. Fourteen new missionaries had been sent out, 13 missionaries had returned to their fields after visits to this country, 6 were now at home, and 9 had retired from service. The detailed reports from the fields represented 3 missions in China, where a Chinese Baptist Publication Soci-

ety had been organized at Canton; Mexico, where the work had been divided into a north and a south Mexican mission; Italy, where the English Baptists had turned their mission in Naples over to the board; Brazil, where the work showed a marked advance, and the line of missions extended from Manaos, on the Amazon, to São Paulo in the south, a distance of several thousand miles; and Japan. In all, the missions returned 100 churches, 140 out stations, 82 missionaries (35 men and 47 women), 27 ordained native missionaries, 101 unordained native laborers (87 men and 14 women), 845 additions by baptism, 5,347 members, 2,446 pupils in Sunday schools, 57 houses of worship, and 43 day schools, with 1,165 pupils. The contributions offered by the native members amounted to \$7,110. Of the whole number of members, 1,802 were in China, 341 in Africa, 518 in Italy, 1,091 in Mexico, 1,524 in Brazil, and 71 in Japan.

The Home Mission Board had employed (mostly in co-operation with State boards) 653 missionaries, against 467 in 1897, and returned 6,552 baptisms during the year, against 4,739 in 1897, and a total of 12,983 additions to the churches, against 9,509 in the previous year. Five hundred and twelve Sunday schools had been organized, with 14,768 teachers and pupils. The amount raised and expended on the field for home missions was \$65,819, and \$50,050 had been collected and expended in building houses of worship, making a total amount of money raised \$115,869, an increase of \$5,232 from the previous year. The whole amount of cash received by the board from the States was \$61,794. Co-operative work among the negroes was carried on in Georgia, Missouri, Kentucky, North Carolina, and Virginia. In Alabama the work had been discontinued through the withdrawal of the State board, while in South Carolina, the three years' agreement having expired, the arrangement was not continued. This co-operative work had been productive of much good in many ways, not the least of which was the increased harmony it produced between the races. The work in Cuba had been resumed, with stations at Havana, Matanzas, Cienfuegos, and several towns and cities in Santa Clara province. It was proposed to occupy Pinar del Rio, in the western province, and ultimately to cover the whole island with missions. The Woman's Missionary Union was becoming more and more helpful every year. Through its agency \$14,129 in money and the value of \$22,567 in boxes had been contributed to the board; and the women were represented in work among Germans, Mexicans, French, Chinese, and Italians. They had undertaken the charge of industrial schools among the Germans in Baltimore, and had labored with the colored people through Bible classes, industrial schools, and home instruction. The Sunday School Board reported a total income of \$67,173, of which \$61,876 were from sales of periodicals, books, etc. The whole was an advance of more than \$2,100 over the previous year. There were no unpaid balances against the board, while a credit balance remained sufficient for the beginning of the work of the new year. The board had sent out, on account of appropriations, 17,448 Bibles and Testaments, while the sale of Bibles besides was increasing every year. Books and tracts had been distributed to the value of \$3,391, and more than \$2,000 had been spent in publication, although caution had been used in exercising the privilege of publishing books and tracts. One gift of \$500 had been received as a "book endowment fund," which would be named from the wife of the donor, "the Eva Garvey Publish-

ing fund." Majority and minority reports were presented by a committee which had been appointed at the previous meeting of the convention to consider a resolution for the dissolution of the connection of the Theological Seminary at Louisville with the convention, so as to leave the institution under the unrestricted control of its trustees, and a request from the Kentucky General Association that each State interested in the seminary be permitted to elect its representatives on the Board of Trustees. The majority report recommended that the mover of the resolution be allowed to withdraw it, and the affairs relating to the seminary be left as they were. The minority report advised that the convention put itself on record as opposed to dissolving the connection between the seminary and itself, and offered reasons for preserving it, and advised that the request of the Kentucky association be not adopted. The majority report was adopted. A representative of the convention was appointed to co-operate with the deputation of the Baptists of England and Ireland in presenting a petition to the Czar in behalf of the Stundists in Russia. The convention resolved to observe the year 1900 as a year of thanksgiving, with special efforts to inform the people of the denominational life of the century, and to organize the forces of the churches for work during the coming century; and provision was made for carrying this resolve into effect. The employment of "a wise and discreet man" to work in the mountain regions of the South, establishing schools and preaching, was directed.

The annual meeting of the Southern Baptist Young People's Union was held in Louisville, Ky., May 11. The Rev. L. O. Dawson, D. D., of Tuscaloosa, Ala., presided. The report of the Executive Committee showed that there were about 2,500 unions in the South, and that they were represented in the convention by 165 enrolled delegates. Addresses were made relative to religious life and work.

The annual meeting of the Woman's Missionary Union was held at the same time with that of the Southern Baptist Convention. The union had raised \$24,153 for its work in co-operation with the Foreign Mission Board. It had instituted a system of regular correspondence to be carried on between the children of their missionaries and those of the home board, whereby they could be brought into closer relations.

Southern Baptist Theological Seminary.—The resignation of the Rev. Dr. W. H. Whitsett as President of the Southern Baptist Theological Seminary, Louisville, Ky., and as Professor of Church History, which had been offered to them, was acted upon by the Board of Trustees of the seminary at their meeting in May. The friends of Dr. Whitsett had desired that he should remain at the seminary, but, in view of the controversies that had been raised concerning his position on certain questions (see *Annual Cyclopædia* for 1898), had finally concluded that it would be expedient to consent to his withdrawal, voluntarily tendered. The resolution to accept his resignation was offered by one of those trustees who had acted most steadfastly in his behalf. It was divided into two parts, the first of which, accepting his resignation of the presidency of the seminary, was carried by a very large majority; while upon the second resolution, accepting the resignation of the professorship of church history, the vote was 22 to 20. In connection with this action the board adopted a minute which set forth that, "whatever differences may exist among us as to other matters, we are one in our

recognition of the exalted Christian character, rare ability, and scholastic attainments of Dr. Whitsitt, and in our appreciation of the extended and multiform services he has rendered our denomination and the cause of common Christianity during his connection with the seminary. We accord to him the utmost purity of motives and loyalty to truth, as God has given it to him to see the truth in prosecuting and publishing his researches. In parting with him, therefore, we would give him renewed assurance of our tender love for him personally, and our earnest prayer for his ever-increasing usefulness, and commend him to the confidence and fellowship of Christian people everywhere. Second, we would also have it go on record that, as we have twice before affirmed, we have not felt called upon in any way to pass upon the historical question or questions raised by Dr. Whitsitt, and that we do not, by accepting his resignation, purpose or desire to neutralize in the least the influence of those immortal principles of freedom of research and freedom of speech for which Baptists have so long and so constantly stood."

The Rev. J. P. Greene, President of William Jewell College, Liberty, Mo., was elected president of the seminary. He declining to leave the institution already under his charge, the Rev. E. Y. Mullins, D. D., of Newton Center, Mass., was chosen to the office and accepted it.

German Baptist Conferences.—These include seven conferences and a General Conference meeting every three years. At the twelfth triennial session of the General Conference, held at St. Louis, Mo., in September, 1898, reports were made concerning publication, educational work, and the care of orphans. The publication house at Cleveland, Ohio, issued one weekly and five monthly periodicals, and many books, tracts, and pamphlets. The establishment was estimated to represent a value of more than \$70,000. The academy and seminary at Rochester, N. Y., returned 5 professors, several tutors, and 53 students. Sixty-five thousand dollars—one half of the sum subscribed by German Baptists—had been secured toward a proposed endowment fund of \$100,000. The German Baptist Orphanage, which was practically owned by a single person, was surrendered to individual management, and a committee was appointed to make provision for the care of German Baptist orphans in private families.

The Baptist Congress.—The seventeenth Baptist Congress met in Pittsburg, Pa., Nov. 14 to 16. The Rev. D. Purinton, D. D., President of Denison University, presided. In his address on the occasion of the opening of the sessions he spoke of the Baptists as standing for individualism as against sacerdotalism. They were opposed to all forms of proxy religion. They stood for dominance of truth in religion, and did not ask for any ecclesiastical authority for what they should believe as truth. The subjects on the programme of discussions were, as a rule, each treated by two writers and two speakers. The first topic, The Resurrection of the Body, was considered by Prof. James Ten Broeke, Prof. Norman Fox, the Rev. Walter Calley, and the Rev. Dr. H. C. Applegarth, from the various points of view of the speculative aspects of the question, the exposition of the Scripture teaching, the identity of the raised body, and the connection of the resurrection of the body with the redemptive work of Christ. The subject of The Improvement of Theological Education was discussed by the Rev. Dr. O. P. Eaches, the Rev. Robert McDonald, the Rev. F. G. Woods, and

Prof. E. P. Pollard; on the subject of What Constitutes Denominational Loyalty? a variety of views were expressed as to details, while an agreement appeared to exist respecting the fundamental principal of loyalty. The Rev. Dr. J. T. Christian, the Rev. Dr. A. S. Hobart, the Rev. E. W. Hunt, and Prof. S. C. Mitchell were the readers and speakers. On the subject of What is the Duty of the Church in improving the Condition of the Laboring Men? the Rev. George R. Robbins, Prof. Lee D. Dodge, and the Rev. Riley A. Vose emphasized the spiritual aspects of the question, and the Rev. Dr. T. Edwin Brown presented a view of the essential principles of the relation of the Church to social concerns. To the question, Is there a Place for Authoritative Creeds in Religion? the Rev. S. B. Batten, the Rev. Dr. H. M. Sanders, the Rev. Howard L. Jones, the Rev. J. R. Brown, and the speakers in the general discussion all offered negative answers. The last subject was The Priesthood of Believers, and was treated of by the Rev. C. H. Pendleton and the Rev. Dr. George E. Rees. The closing addresses, summarizing the results of the congress, were made by the Hon. Francis J. Torrance, the Rev. Dr. George E. Horr, and the Rev. Charles H. Dodd.

Baptists in Canada.—Chancellor O. C. Wallace gives the number of Baptist members in Canada as less than 100,000, about 50,000 of whom are in the maritime provinces, while the rest are scattered from New Brunswick to the Pacific Ocean, with about 40,000 in Ontario and 5,000 or 6,000 in Quebec, Manitoba, the Northwest Territories, and British Columbia. They have but few men of very large fortunes, and the average pay of their ministers is small. The largest salary is \$3,500; one pastor receives \$2,500, three or four \$2,000 each, about half a dozen from \$1,500 to \$2,000, a large number from \$600 to \$800, and many less. Yet competent and suitable men to fill the pulpits are not lacking. The educational institutions include Acadia University, at Wolfville, Nova Scotia, with three departments and a theological department contemplated, and about 300 students enrolled; the Feller Institute, at Grande Ligne, for the French; and MacMaster University, at Toronto, with four departments, and between 400 and 500 students; and preparations are making to establish a school in Manitoba as soon as the money can be secured. A similar purpose is entertained in British Columbia. A closer intercourse than has heretofore prevailed is developing between the Baptists of the maritime provinces and those farther west, largely through the influence of common interests in the Grande Ligne Mission and in Manitoba.

Baptists in Great Britain.—While it has been usual in compiling the numerical tables in the Baptist Handbook to supply gaps in the reported statistics of the churches in Great Britain and Ireland with estimates, based on reports from previous years or upon other information, these were dropped in the edition of 1899, and only members actually reported for the year were given, while the nonreporting churches were assigned to a separate list. From 2,697 churches were returned 355,218 members, 51,430 teachers, and 525,533 pupils in Sunday schools, 1,951 pastors in charge, and 5,111 local preachers, with 16,805 baptisms during the year. New chapels had been erected during the year in England, Ireland, and Wales, affording 14,532 sittings, at a cost of £70,059, and £47,680 additional had been expended on chapel improvements, new school-rooms, classrooms, etc. At the same time chapel debts had been paid off to the amount of £77,113.

The annual assembly of the Baptist Union of Great Britain and Ireland was held in London, beginning April 24. The Rev. Dr. John Clifford was chosen president for the year. The council reported 16,805 baptisms during the year, a higher number than in any year since 1894; an increase of 50 churches, 3 chapels, 8,438 members, 1,030 teachers, and 11,917 pupils in Sunday schools, 90 local preachers, 35 pastors in charge; £70,050 expended on new chapels, as against £42,976 in 1897; £47,680 on improvements and additions, as against £56,806; and £77,113 in removal of debt, as against £56,418. The union's income, under various heads, had been £18,390. The Ministerial College, at Dublin, had been recognized as qualifying theological students for the inscription of their names in the Handbook list of ministers. The idea of a Baptist Church house had taken shape, and the erection of a building for such purpose was intended on the site of the Kingsgate Street Church, which was to be demolished in the course of street improvements. The council had already taken measures for the institution of a special fund in honor of the coming in of the twentieth century, to be collected by the beginning of the year 1901. A resolution was adopted by the meeting instituting this fund, to be called the "Twentieth Century fund," and fixing the amount to be raised at "a quarter of a million pounds from half a million Baptists." It was further ordered that this fund should have four sections—the historic, in memoriam, Sunday-school, and young people's sections, the last section being divided so as to appertain to the Christian Endeavor and to other kindred societies. A historic roll was ordered prepared, to contain the names (if possible, subscribed by themselves) of all contributors and collectors of ten shillings and upward; that the fund be opened and the historic roll begun May 7, 1899, and the roll be closed March 31, 1901, after which no fresh names shall be received; that friends be invited to contribute to the in memoriam section in memory of their loved ones and of a Baptist ancestry, and an in memorial roll also be formed; that both rolls contain only names of subscribers, not amounts; and that both be preserved among the historical documents at the Baptist Church House. A special committee was instituted to take charge of matters relating to this fund. The fund was allocated as follows: £125,000 for the evangelization of the country, church extension in London and large towns and cities and villages where the Baptists are not adequately represented, and where the religious need is not met by other evangelical churches; £30,000 for the assistance of the weaker churches and the maintenance of their pastors; £30,000 for the annuity fund for aged ministers and the widows of ministers; £6,000 for the establishment of scholarships to be held at some seat of learning, open to any students in the Baptist colleges who intend to enter the home ministry; not exceeding £34,000 for the erection of a Baptist Church house; and £25,000 for educational and other objects which in the judgment of the council may appear to be desirable in the interests of the denomination. While all contributions were required to be placed at the full disposal of the council, in accordance with the general provision for the allocation of the fund, the option was left to donors to assign to either "close" or "open" (communion) churches that proportion of their contribution which is allocated to the scheme of church extension. The council was authorized to unite with the Baptists of the United States and Canada in sending a deputation to the Czar of

Russia to ask for a mitigation of the sufferings of the Stundists unless there should be a favorable change; and a deputation was authorized to seek an interview with the King of Saxony in behalf of a removal of the disabilities under which Baptists in that country are placed. Resolutions were adopted congratulating the Church Missionary Society and the Religious Tract Society on their centenaries; protesting against the establishment of a state-supported Roman Catholic university for Ireland; protesting against the publication of Sunday editions of the daily newspapers; and honoring the memory of Oliver Cromwell, whose tercentenary was in celebration.

The annual meeting of the Baptist Missionary Society was held in London, April 20. The report showed that the total receipts of the society had been £75,331, or about £2,500 more than in the previous year; and the expenditure had been £71,301, an increase of £319. The review of the various mission fields as presented in the general report was interpreted as showing much cause for encouragement, especially in that it indicated a large increase in the membership of native churches.

The general receipts of the Zenana Mission for 1898 amounted to £9,921, while the expenditure exceeded the income by £728, but £300 had been contributed toward reducing this deficit. The society employed 61 missionary workers in India, with 213 native Bible women and school-teachers, and 7 European missionaries in China.

The capital of the Baptist Building fund, as reported upon at the annual meeting, April 27, stood at £51,692, and by its means 271 churches had been aided during the year in their building operations.

The income of the Bible Translation Society for 1898 was £1,246, and a small balance remained over the expenditures. The reserve fund stood at a little more than £1,600.

The autumnal session of the union was held in Leeds, beginning Sept. 27. The regular opening meeting was preceded by a meeting for the reception of fraternal deputations from other religious bodies. The Rev. Dr. Clifford presided and delivered the opening address, on the subject of The Christ of the Coming Century; or, The Primitive Christian Faith in its Application to the Institutional Life of Men. A "first *ad interim* statement" was made concerning the "Twentieth Century fund," the chief work on which, since its inauguration in May, had been preparatory organization. Every county association had unanimously and enthusiastically adopted the resolution to support it. Three hundred and ninety-six of the 2,224 churches had so far appointed their secretary for the fund, received literature, and begun their work, while only 176 churches had as yet made a financial report. The Welsh churches had conferred and promised £50,000. Irish Baptists had promised £5,006. Considerable gifts were mentioned as having been pledged by a number of English churches, besides £32,000 which had been secured at the spring meeting of the union from a few persons. A resolution was adopted pledging the assembly to put forth every effort to raise the fund. Another resolution recognized the great difficulties of her Majesty's Government in its relations with the Transvaal Republic and the great disabilities of which the Uitlanders complained, but prayed the Government to be so patient and moderate that all the world might see its desire to avoid strife in securing justice. Another resolution condemned the reconviction of Capt. Dreyfus by the French military court; and another called atten-

tion to the recommendations in the report of the Royal Commission on the Licensing Laws with regard to Sunday closing and the sale of drink to children, and urged the churches to use every means in their power to influence legislative opinion on the lines of the minority report. In an address before a public meeting the Rev. Dr. MacLaren laid down as the "quaternion" of great principles that underlie every one of the free churches: The supremacy of Scripture and its sole authority in the doctrines and practices of every Christian church; the spirituality and consequent freedom of Christ's Church; faith, and faith only, the band of union between Christ and his people and the channel of spiritual life and spiritual blessing; and the universal priesthood of believers, carrying with it the privilege of direct access to God. At a meeting in behalf of the Missionary Society approval was given to a suggestion in favor of Sunday schools assuming the support of individual missionaries; and it was shown that 6 out of 24 missionaries and 70 out of 89 evangelists independently maintained were maintained by Sunday schools. The subject of interest in missions was also presented at the young people's meetings.

At the meeting of the Baptist Union of Ireland in June Mr. H. H. Graham, of Belfast, presiding, it was represented that the membership had doubled in ten years from 1,400; 5 self-supporting churches had been increased to 9; contributions for home-mission work had risen from £450 to £1,000 per annum; and £20,000 had been spent in the erection of new chapel buildings. An effort was resolved upon to raise a twentieth century fund with the aid of England, Scotland, Wales, and the United States, and more than £4,000 of subscriptions were already recorded. The number of baptisms during the year was given as 268.

Baptists in Jamaica.—At the annual meeting of the Baptist Union of Jamaica in March a net decrease of 317 members was returned. This result was attributed to the stringent condition of general affairs in the colony. The whole number of members was 33,638, and 24,000 pupils were enrolled in the week-day and Sunday schools. The findings of the Education Commission had not been well received.

BELGIUM, a constitutional, representative, and hereditary monarchy in western Europe. The Senate contains half as many members as there are in the lower chamber, and in addition two, three, or four from each province, according to the population, who are elected indirectly. The others are elected directly for eight years by citizens thirty years old or over. The members of the Chamber of Representatives are elected directly for four years by all citizens over twenty-five years old. Those possessing real property worth 48 francs a year, or having investments in the Belgian funds or money deposited in savings banks yielding an income of 100 francs, can vote twice; also those over thirty-five years of age who have legitimate issue or those who have diplomas from the higher educational institutions or have practiced one of the professions or filled public offices. Any one possessing three or more of these qualifications is entitled to cast three votes. The number of electors in 1897 was 1,401,951, possessing 2,141,041 votes.

The reigning sovereign is Leopold II, King of the Belgians, born April 9, 1835. The Cabinet of Ministers in the beginning of 1899 was composed of the following members: President of the Council and Minister of Finance, M. De Smet de Naey-

er; Minister of Railroads, Posts, and Telegraphs and Acting Minister of War, J. H. P. van den Peereboom; Minister of Foreign Affairs, P. de Favereau; Minister of Justice, V. Begerem; Minister of the Interior and Public Instruction, M. Schollaert; Minister of Agriculture and Public Works, L. de Bruyn; Minister of Industry and Labor, M. Nyssens.

Area and Population.—The area of Belgium is 11,373 square miles. The population on Jan. 1, 1898, was 6,586,593, comprising 3,285,543 males and 3,301,050 females. On Jan. 1, 1899, the total was 6,669,732. The number of marriages in 1897 was 54,198; of births, 190,987; of deaths, 113,502; excess of births, 77,485. The number of immigrants in 1897 was 26,878, and of emigrants 21,830. The population of Brussels at the end of 1897 was 551,011, including suburbs; of Antwerp, 271,284; of Liège, 167,305; of Ghent, 161,125.

Finances.—The revenue of the Government, ordinary and extraordinary, in 1896 was 480,940,000 francs, and the expenditure 437,608,000 francs. The budget estimate of receipts from all sources for 1899 was 435,037,428 francs. The ordinary receipts for 1898 were estimated at 388,298,598 francs, of which taxes on property were expected to produce 25,456,000 francs; personal taxes, 20,085,000 francs; trade licenses, 7,400,000 francs; mines, 600,000 francs; customs, 36,246,632 francs; excise, 52,420,297 francs; succession duties, 19,940,000 francs; registration duties, 19,900,000 francs; stamps, 6,500,000 francs; various indirect taxes, 5,771,000 francs; river and canal tolls, 1,590,000 francs; railroads, 154,000,000 francs; telegraphs, 6,880,000 francs; the post office, 13,160,020 francs; pilotage and navigation dues, 1,430,000 francs; domains and forests, 2,718,000 francs; amortization fund, securities, and national bank, 10,051,900 francs; repayments, 4,149,749 francs. The total ordinary expenditure was estimated at 385,278,702 francs, of which 114,152,253 francs were for interest and sinking fund of the national debt, 4,930,200 francs for the civil list and dotations, 21,517,990 francs for the Ministry of Justice, 2,757,065 francs for the Ministry of Foreign Affairs, 116,337,880 francs for the Ministry of Railroads, 26,378,070 francs for the Ministry of the Interior and Public Instruction, 21,773,694 francs for the Ministry of Agriculture and Public Works, 48,320,375 francs for the Ministry of War, 19,514,515 francs for the Ministry of Finance, 4,917,100 francs for the gendarmery, 2,743,560 francs for the Ministry of Industry and Labor, and 1,896,000 francs for repayments.

The debt of Belgium was raised almost exclusively for the construction of useful public works, especially railroads, and all the loans are being extinguished by means of a sinking fund. The amount of debt outstanding in 1898 was 2,346,593,476 francs, all funded at 3 per cent. In addition to this there is an old debt of 219,959,632 francs, paying 2½ per cent. interest, which was assumed by Belgium as her share upon the partition of the former kingdom of the United Netherlands. The total liabilities of the Government are therefore 2,566,593,476 francs.

The Army.—The army is recruited mostly by conscription, every Belgian being liable to serve from the age of nineteen. A part of the troops are still obtained by voluntary enlistment. The strength of the army on the peace footing was in 1898 as follows: Infantry, 1,745 officers and 27,900 men; cavalry, 304 officers and 5,760 men; artillery, 534 officers and 8,214 men; engineers, 146 officers and 1,860 men; gendarmery, 59 officers and 2,831 men; general staff, adminis-

tration, military school, train, etc., 631 officers and 1,449 men; total, 3,419 officers and 48,014 men, with 9,040 horses, besides 1,845 for the gendarmery, and 204 guns. The war strength is 4,466 officers and 143,628 men, with 25,823 horses. The civil guards, organized in the towns for the defense of the national territory, number 42,827 men.

Commerce.—The imports in the general trade for 1897 were valued at 3,090,829,820 francs, and exports at 2,837,271,890 francs. Of the imports 1,522,554,528 francs came by sea and 1,563,275,292 francs by land and river; of the exports 1,326,318,124 francs went by sea and 1,410,953,766 francs by land and river. The value of the transit trade was 1,268,800,000 francs. The imports for domestic consumption were 1,818,000,000 francs in total value; the exports of domestic produce and manufacture, 1,268,800,000 francs. The values of the principal special imports were 312,505,000 francs for cereals, 161,912,000 francs for textile materials, 102,503,000 francs for timber, 101,828,000 francs for chemical manufactures and drugs, 89,415,000 francs for mineral substances, 89,132,000 francs for metals, 83,680,000 francs for gums, resins, etc., 64,867,000 francs for hides and skins, 60,828,000 francs for coffee, 60,781,000 francs for woolen, cotton, and silk goods, 49,803,000 francs for oil seeds, 46,816,000 francs for live animals, 38,086,000 francs for coal and coke, 35,478,000 francs for animal products, 28,718,000 francs for linen, woolen, and other yarns, 25,893,000 francs for dyes and colors, 24,834,000 francs for machinery, 24,565,000 francs for wines, 16,698,000 francs for fertilizers, 13,519,000 francs for butter and margarine, and 10,217,000 francs for tobacco. The values of the chief exports of domestic produce and manufacture were 107,153,000 francs for linen, woolen, and other yarns, 90,731,000 francs for coal and coke, 84,358,000 francs for cereals, 80,168,000 francs for textile materials, 76,082,000 francs for glass, 74,961,000 francs for machinery and vehicles, 72,590,000 francs for iron, 72,135,000 francs for chemicals and drugs, 66,573,000 francs for leather and hides, 63,147,000 francs for steel, 59,382,000 francs for sugar, 55,841,000 francs for textile goods, 50,404,000 francs for mineral substances, 42,597,000 francs for zinc, 35,095,000 francs for horses, 34,519,000 francs for animal products, 28,328,000 francs for fertilizers, 26,078,000 francs for bitumen, 23,032,000 francs for dyes and colors, 21,839,000 francs for meat, and 21,179,000 francs for oil seeds.

The values in francs of the special imports from and exports to the principal foreign countries in 1897 are given in the following table:

COUNTRIES.	Imports.	Exports.
France.....	296,588,000	297,938,000
Germany.....	253,972,000	363,254,000
Great Britain.....	278,576,000	302,085,000
Netherlands.....	159,271,000	184,083,000
United States.....	231,743,000	60,486,000
Russia.....	139,185,000	40,998,000
Roumania.....	98,681,000	70,989,000
Argentine Republic.....	68,207,000	16,816,000
Sweden and Norway.....	54,650,000	17,896,000
British India.....	46,729,000	16,844,000
Spain.....	35,638,000	24,211,000
Brazil.....	38,362,000	17,005,000
Italy.....	24,060,000	28,476,000
Switzerland.....	6,848,000	32,154,000
Australia.....	29,650,000	8,328,000
Chili.....	20,794,000	6,347,000
Egypt.....	1,930,000	20,521,000
Peru.....	5,011,000	829,000

Navigation.—The number of vessels entered at the ports of Belgium during 1897 was 8,241,

of 7,971,950 tons; cleared, 8,210, of 9,727,525 tons. Of the total 4,551, of 3,023,916 tons, were entered from and 5,781, of 4,644,281 tons, cleared for English ports, and 361, of 929,991 tons, were entered from and 238, of 690,333 tons, cleared for United States ports.

The merchant navy of Belgium on Jan. 1, 1898, comprised 5 sailing vessels, of 917 tons, and 56 steamers, of 84,510 tons.

Railroads, Posts, and Telegraphs.—The length of railroads in operation on Jan. 1, 1897, was 2,851 miles, of which 2,056 miles were operated by the Government and 795 miles by companies. The number of passengers carried in 1896 on the state railroads was 82,676,592, paying 52,877,800 francs; on the companies' railroads, 24,155,216, paying 13,184,718 francs. The total receipts were 160,434,763 francs on the state railroads, and expenses 90,757,306 francs; on the companies' railroads the receipts were 43,182,882 francs, and expenses 20,429,910 francs. The total cost of the state railroads was 1,434,552,921 francs.

The post office in 1897 carried 117,848,690 private and 23,145,817 official letters, 49,420,449 postal cards, 96,456,423 printed packets, and 110,587,241 newspapers. The receipts were 21,625,862 francs; expenses, 11,141,089 francs.

The telegraph lines had in 1897 a total length of 3,955 miles, with 41,895 miles of wire. The total number of messages sent during that year was 9,448,856; receipts, 7,141,089 francs; expenses, 6,068,318 francs.

Political Events.—In the beginning of 1899 the Cabinet had under discussion an electoral reform bill for establishing uninominal voting—that is, voting for single candidates in separate districts, instead of list voting. Under the existing law the Conservative Clerical party had elected 112 Deputies, while the Opposition parties were represented by only 40—28 Socialists and 12 Liberals—yet the coalition between Socialists and Liberals was likely to change very much the composition of the Chamber, for these parties together had polled 980,000 votes in the last election, while the total number of Clerical voters was 930,000. The secession from the Clerical party of the Christian Socialists, led by the Abbé Daens, who were now affiliated with the Socialist Democrats, constituted a new and serious danger to the continued supremacy of the Conservative Clericals. The changes to be brought about by a combination of the Opposition parties would occur chiefly in the representation of the great towns. In Brussels, for instance, the 60,000 Socialists and 40,000 Liberals, voting together, could displace the whole list of 18 Clerical Deputies, who had been elected by 90,000 votes. The Socialists and Liberals denounced the proposed electoral bill as a gerrymandering device, and when it was reported that the King had approved it, as he must any bill presented by the Government, charges were made that he was influencing the Cabinet to force upon the country this unpopular measure. The demand of the Socialists was universal suffrage, on the principle of one man one vote. The Liberals, although upholding the political doctrine of universal suffrage, or at least not venturing openly to condemn a principle which Liberals everywhere make a part of their creed, were less inclined to promote its immediate realization in Belgium than were the Clericals, who would gain votes thereby from the peasantry and working classes, though the Socialists would profit most, whereas the Liberals would get no votes from the classes to be enfranchised. The last exten-

sion of the franchise gave the Clericals their preponderating strength over the Liberals, but it also made the Socialists a great party. The Cabinet had not yet come to a decision on the new electoral bill when invidious accusations were made against King Leopold such as have not infrequently been uttered to the discredit of this once popular monarch. The Prime Minister was opposed to the suggested solution of the electoral question, and when the majority of the ministers, after long deliberation, gave their approval to the plan of uninominal voting he and his colleague, M. Nyssens, Minister of Industry and Labor, tendered their resignations, which were accepted on Jan. 23. M. Van den Peereboom, Minister of War, took the premiership, while M. Liebart became Minister of Finance in succession to M. De Smet de Naeyer, and M. Cooreman was made Minister of Industry and Labor. The new Premier, a representative of the extreme Clericals, announced that the Government was not committed to the uninominal system, and would examine all the schemes for electoral reform. The question was postponed for a time. On March 29 the Socialists provoked a stormy scene in the Chamber when they interpellated the Government regarding the expulsion from Belgium of the French ex-priest Victor Charbonnel. When the president suspended the sitting the members of the Left advanced in a threatening manner against the Deputies of the Right, and, amid a deafening uproar, abusive epithets were interchanged and challenges to duels offered, while in the galleries the spectators fought with the ushers who tried to eject them and with soldiers who were called in to assist.

In the middle of April a great strike of coal miners began, extending from the Charleroi and central districts to Mons, Seraing, Liège, and other coal fields. The gendarmery of the disturbed districts was strengthened, and attempts to interfere with men at work were severely dealt with, so that tranquillity was maintained in most places where the strikers were inclined to be violent, but as a rule they were orderly. There was soon complete cessation of work in all the principal coal mines, and the industrial establishments were compelled to work with a reduced supply of coal, some of them to stop work altogether. In a very few days the situation was relieved by the arrival of large supplies from France, Germany, and Great Britain. The masters, pointing out that wages had been increased 20 per cent. in two years, offered to accept the arbitration of the agents at the mines and the workingmen inspectors. The men had no confidence in the proposed arbitration. They held out for nearly a month, but the arrival of coal from abroad in abundance compelled them to give way at last, and return to work without obtaining what they demanded. Just after the collapse of the strike the International Miners' Congress met at Brussels in the great hall of the newly opened Maison du Peuple, the clubhouse and meeting place of the Socialist Labor party. These people's houses have been erected in all the industrial towns of Belgium in connection with co-operative bakeries, which are a valuable prop to the vigorous Socialistic party in Belgium. Every member of the co-operative society, of which there are 18,000 in Brussels, is required to sign a declaration approving the programme of the party. The bakeries of the society in Brussels, distributing 220,000 loaves daily, employ 200 persons, who work eight hours, have a week's vacation every year, earn a minimum wage of 5 francs, besides 2½ per cent. of the

profits, and receive gratuitous medical attendance in sickness. These societies are the largest producers of bread in Belgium, and they have compelled the bakers to reduce the price of loaves. Some of the profits are used for political and educational purposes. More recently the Socialists have started a trade in tobacco, the entire profits of which are devoted to the election fund for Socialist candidates. The Miners' Congress, which assembled on May 22, consisted of 47 delegates, representing 1,433,000 miners in Great Britain, France, Belgium, Germany, and Austria. A vote in favor of establishing a legal eight-hour day from bank to bank was opposed only by the delegates of the 30,000 miners of Northumberland, and was carried by the 1,403,000 others. A motion from the German and Austrian delegates that the law should apply also to surface workers was carried unanimously. The congress adopted unanimously a resolution holding employers liable for all accidents, and forbidding either workmen or employers to contract themselves out of the provisions of the law.

The electoral reform proposed was an adaptation of a complex system of proportional representation that was put into force in 1892 in the Swiss canton of Ticino, and had been adopted for municipal elections in Belgium. By this plan each party puts forward a list of candidates, as many as they expect with certainty to elect, every elector having as many votes as there are seats to be filled, the upper classes in Belgium twice or thrice as many in virtue of their possessing property, education, or families. Each vote for an entire list, and for no candidate on any other, is put down as a vote for this list. When the votes are counted those candidates are declared elected who receive an absolute majority of the votes cast, and the remaining seats are apportioned by the process of a complicated arithmetical calculation among the various lists in proportion to the number of votes given for them. A number of substitutes are elected along with the regular ticket, and a part of those nominated by the victorious party also obtain seats in addition to the regular candidates, their number being regulated by the excess of the vote over the proportional vote required to seat all those on the regular list. The other supplementary candidates are held in reserve to fill vacancies caused by death or resignation. The bill was therefore intended to do away with by-elections, and in various ways was advantageous to the party in power, which might promote spurious candidatures to divide the votes of its opponents or place moderates on its regular list to be replaced later by extreme partisans from the supplementary list, as was done when this system of voting was first put in practice in Switzerland. The main grievance in the proposed bill to the Socialists and the Liberals and Radicals was that it prevented their intended alliance in such constituencies as Brussels more effectually than the uninominal system would, and that it was made applicable only to the constituencies where it would impair their chances of winning or was certain to reduce their representation, while in the smaller districts, where it would enable them to take some seats away from the Clericals, the system of voting was left unchanged. The representation of minorities was to be given, indeed, only to the few cities electing six or more Deputies—namely, Brussels, Antwerp, Ghent, Liège, and Charleroi—in which the minorities are Clericals. By abolishing second ballots it defeated the proposed coalition between the Social Democrats, the Progressists, and

the Moderate Liberals, since these parties, agreeing only in their common enmity to the Clericals, could not consistently support each other's candidates until the first ballot had proved that their own had no prospect of being elected.

Opinion was much divided on the question of establishing a minimum living wage, and, while the majority believed that one ought to be established by law sufficiently high to allow a decent existence, all agreed that this minimum must vary according to local conditions.

Toward the end of June the Government brought forward the electoral bill that had been decided upon. This embodied not the proposal for cutting up the country into single districts, but a plan advanced by M. Van den Peereboom, which he called a compromise, but which was even more obnoxious to the Socialists and Liberals, because it was more flagrantly unfair. The former proposal was withdrawn because it encountered not only the fierce resistance of the various sections of the Opposition, but was condemned by the moderate Conservatives and some even of the stricter sect. As soon as the Government bill was announced the Brussels Socialists agreed to order a general strike of the workers of the city on July 5, when the debate would begin in the Chamber. A universal strike is a political weapon that has been employed in Belgium alone, where all workers are organized in trade unions and all unions are controlled by the Labor party. It was by means of a political strike that the extension of the franchise was wrung from the Government in 1893. On June 28 a great assemblage of demonstrators surrounded the Parliament buildings and the royal palace, which was dispersed only after a sharp conflict with the gendarmery, who charged repeatedly with fixed bayonets and drawn swords. The next day the Socialists in the Chamber called the Government to account for what they described as the brutalities of the police. The Prime Minister defended his electoral scheme as being of the nature of a compromise, and said that any other would be equally liable to attack. M. Van der Velde, one of the Socialist leaders, declared that his party would call upon the people to defend themselves, and M. Lorand demanded the postponement of the electoral law, declaring that otherwise disorder would continue both in the Chamber and in the streets. M. Furnemont moved to censure the Government, and his resolution was rejected by 87 to 31 votes. The sitting was suspended, owing to the uproar that followed, and cries for a republic were raised in the crowd assembled outside as the Deputies left the hall. The Socialist members marched at the head of an immense procession, which burst through the cordons of police that blocked the way and filled the great square, where M. Van der Velde delivered a speech. In the evening a mob made a demonstration before the Ministry of War which mounted gendarmes were unable to stop, and later the crowd showered stones upon the gendarmes, who charged with drawn swords in the great square. When the people began to pull up the paving stones to use as missiles against the gendarmes, these were replaced by civic guards. The next day and evening fiercer riots took place, and the gendarmes who attempted to clear the great square used ball cartridges after several useless bayonet charges, while the rioters hurled all kinds of missiles from the streets and houses, and began throwing up barricades. Before morning the military were brought into requisition. About 100 persons were injured. On the following day

the Premier, in reply to an appeal for conciliation from the Socialists on grounds of humanity, promised to postpone action in order to study the situation. The burgomasters of Brussels, Ghent, Antwerp, and Liège declared that they could not answer for public order if the electoral bill were proceeded with. Civic guards cheered the Socialist parades, and in some places went to Socialist meetings with arms reversed in token of surrender. Regular soldiers also attended these meetings in uniform. The royal family were said to be getting ready to flee from Belgium. In Liège the entire civic guard joined the Socialists at the Maison du Peuple. Monster meetings were held by Socialists and Radicals together at Antwerp, Brussels, and other places. The workmen of the mining districts and the great factory towns agreed to join in a general strike. On July 4 Minister Van den Peereboom proposed to appoint a committee, in which all parties should be represented, to consider fresh electoral proposals. M. Theodor, an independent member, then brought forward a proposal to extend the system of full proportional representation to the whole country. M. Van der Velde, speaking for both parties of the Left, accepted the Premier's proposal to refer all electoral schemes to a committee, as this amounted to a withdrawal of the original scheme, and said that the Left consented to form part of the committee as representing the country, which had achieved a great victory. All traces of agitation disappeared as soon as the Government thus capitulated. The committee was appointed, consisting of 15 members. On July 31 it reported against the Government measures, rejecting also the other proposals submitted to it. In consequence of the committee's decision the ministers on Aug. 1 tendered their resignation, and the King called upon M. De Smet de Naeyer to form a Cabinet. This was constituted on Aug. 4 as follows: Premier and Minister of Finance and of Public Works, M. De Smet de Naeyer; Minister of the Interior, M. De Trooz; Minister of Justice, M. Van den Heuvel; Minister of War, Gen. Cousebant Alkemade; Minister of Foreign Affairs, M. De Favereau; Minister of Agriculture, Baron Van der Bruggen; Minister of Industry and Labor and provisionally of Railroads, M. Liebart. The new Premier announced the adoption of a modification of M. Theodor's proposal of complete proportional representation. Instead of allowing a party commanding a clear majority of the electoral vote of a district to elect a whole list of candidates and fill all the seats, a new system is introduced limiting the seats assigned to the proportion of votes cast by each party, thus giving minorities full proportional representation everywhere. The Government bill provided for the addition of 15 new members to the Chambers.

BOLIVIA, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 18 members, elected for six years, and a House of Representatives of 64 members, elected for four years. Every male Bolivian of full age who can read and write possesses the franchise. The President is elected for four years by the vote of the nation, and is not re-eligible for the next succeeding term.

The President is Severo Fernandez Alonso, who entered upon the office on Aug. 15, 1896. The First Vice-President and President of the Congress and Senate is Dr. Rafael Peña; Second Vice-President, Dr. Genaro Sanjines. The Cabinet at the opening of 1899 was composed of the following members: Minister of Foreign Affairs

and Worship, Dr. Manuel M. Gomez; Minister of Finance, L. Gutierrez; Minister of the Interior and Justice, Macario Pinilla; Minister of Public Instruction, Colonization, Telegraphs, Public Works, and Industry, T. Valdivieto; Minister of War, J. E. Herrero.

Area and Population.—The area of Bolivia is 567,430 square miles. The population is estimated at 2,019,549, exclusive of about 250,000 uncivilized Indians. About one fourth the people are of European descent, one fourth mixed, and one half Indian.

Finances.—The revenue in 1896 was 3,566,777 bolivianos, or dollars, and the expenditure 4,264,681 bolivianos. In 1897 the revenue was 4,840,300 bolivianos, of which 2,691,723 bolivianos came from customs, 406,281 bolivianos from alcohol, 679,582 bolivianos from silver and minerals, 149,003 bolivianos from export duty on rubber and from patents, 238,890 bolivianos from postage and revenue stamps, and 149,000 bolivianos from nickel coinage. The revenue for 1898 was estimated at 5,194,593 bolivianos, and the expenditure at 5,713,897 bolivianos. The chief expenditures were 1,817,490 bolivianos for instruction and public works, 1,517,483 bolivianos for financial administration, and 1,519,218 bolivianos for the army.

The internal debt amounted in 1898 to 3,707,541 bolivianos. There was an external debt of 1,084,555 bolivianos due to Chilean creditors, having been reduced from the original sum of 6,500,000 bolivianos. For the payment of this 40 per cent. of the customs duties of the port of Arica was devoted.

The Army.—The standing army is about 2,000 strong. The National Guard is made up of all able-bodied Bolivians, who under the conscription law of 1892 are liable to serve between the ages of twenty-one and fifty in the line, the reserve, the extraordinary reserve, and the territorial guard. The total number in the army and the various reserves is reported to be 82,000 men.

Commerce and Production.—Bolivia produces enough wheat, corn, beans, and potatoes for food, and large numbers of cattle, sheep, and llamas. These last are the common beasts of burden. The wool grown in the country is made into cloth for the common people. Coffee is exported to Chili and the Argentine Republic. Sugar is grown and distilled into rum, and more is imported from Peru. Rubber is exported in increasing quantities. Cinchona and coca are also important articles of export. Bolivia is exceedingly rich in minerals, producing silver, tin, copper, lead, zinc, antimony, gold, and bismuth. The silver mined in 1894 amounted to 14,519,296 ounces. About 4,000 tons of concentrated tin ore and 2,000 tons of extracted metal are produced annually. The annual product of copper in the form of barilla is 3,000 tons. The value of the foreign trade is known only by estimates. The total imports were valued in 1897 at 24,467,100 bolivianos. The chief articles were provisions, hardware, wines and liquors, cotton, linen, woolen, and silk tissues, and apparel. The major part of the goods came from Germany, and considerable quantities from England. The total exports were valued at 23,121,320 bolivianos. The export of silver was 14,876,000 bolivianos in value; tin and bismuth, 3,821,000 bolivianos; copper, 2,650,000 bolivianos; rubber, 1,351,000 bolivianos. In addition to the reported exports, large quantities of goods are smuggled out of the country without paying duties. In addition to the above articles, wool, hides and skins, gold, coffee, cinchona bark, and coca are exported, and

rubber, the annual value of which is about 900,000 bolivianos.

Railroads, Posts, and Telegraphs.—A railroad runs from the Chilean port of Antofagasta to Uyuni, Huanchaca, and Oruro. About 500 miles are in Bolivian territory. Railroads to Peru and the Argentine Republic are projected.

The telegraph lines have a length of 2,260 miles. The post office in 1897 carried 1,983,522 internal and 516,722 international letters.

Overthrow of the Government.—An uprising against the Government of President Alonso met with success in April, 1899. The revolutionists under Col. Pando won a victory over the Government forces in a pitched battle, and when they entered Oruro the President fled over the border into Chili. A new Government was constituted immediately, and in a few days quiet was restored.

BRAZIL, a federal republic in South America. The legislative power is vested in the National Congress, consisting of a Senate of 63 members, 3 from each state and the federal district, and a House of Deputies, containing 212 members. The Senators are elected for nine years, one in each state every three years, by direct suffrage. The Deputies are elected every three years, as many for each state as it has multiples of 70,000 population. All male Brazilians able to read and write possess the franchise with the exception of soldiers in active service, members of monastic orders, and paupers and criminals. The President of the republic is elected by the direct vote of the nation for the term of four years.

The President is Dr. Manoel Ferraz de Campos Salles, who was elected for the term beginning Nov. 15, 1898. The Vice-President is Dr. Francisco Rosa e Silva. The Cabinet in the beginning of 1899 was composed of the following members: Minister of Foreign Affairs, Gen. Dionysio E. de Castro Coqueira; Minister of Finance, Dr. Bernardino de Campos; Minister of War, Gen. J. T. de Cantuaria; Minister of Industry, Marshal J. Rodriguez de Moraes Jardim; Minister of the Interior and Justice, Dr. Amaro Cavalcanti; Minister of Marine, Rear-Admiral Manoel J. Alves Barbosa.

Area and Population.—Brazil has an area of 3,209,878 square miles, with a population of 14,333,915 at the census of 1890, divided into 7,237,932 males and 7,095,983 females. The population of Rio de Janeiro was 522,651. The number of immigrants in 1896 was 157,948, of whom 96,324 were Italians, 24,154 Portuguese, 11,366 Austro-Hungarians, and 1,070 Germans.

Finances.—The revenue for 1897 was 293,223,100 milreis, and the expenditure 328,974,000 milreis. For 1898 the estimated revenue was 325,197,123 milreis; expenditure, 372,812,424 milreis. The budget estimate of revenue for 1899 was 346,164,000 milreis, of which import duties were expected to produce 222,000,000 milreis; railroads, 45,080,000 milreis; posts and telegraphs, 12,900,000 milreis; stamps, 10,000,000 milreis; water-works of Rio de Janeiro, 2,000,000 milreis; lottery taxes, 1,000,000 milreis; tobacco duties, 2,000,000 milreis; other sources, 46,184,000 milreis. The expenditure for 1899 was estimated at 346,000,423 milreis, of which 16,009,897 milreis were allowed to the Ministry of the Interior and Justice, 1,832,412 milreis to the Ministry of Foreign Affairs, 26,439,932 milreis to the Ministry of Marine, 46,329,296 milreis to the Ministry of War, 89,464,676 milreis to the Ministry of Industry, and 165,924,210 milreis to the Ministry of Finance. The revised estimates made the total revenue 351,114,000 milreis, and expendi-

ture 328,941,000 milreis. For 1900 the general revenue is estimated at 285,498,000 milreis in currency and 19,321,000 milreis in gold; special revenue at 23,920,000 milreis in currency for the redemption fund, including an issue of 20,000,000 milreis of nickel coins, and 9,026,000 milreis in gold for the guarantee fund. The total expenditure, including funding bonds, for 1900 is estimated at 267,109,000 milreis in currency and 34,641,000 milreis in gold.

The foreign debt on Jan. 1, 1898, was £34,697,300 sterling, equal to 308,420,444 milreis. Internal loans amounted to 637,425,000 milreis, Government paper money to 439,614,276 milreis, bank notes to 315,344,330 milreis, and the floating debt to 299,473,041 milreis, making the total liabilities of the Federal Government 2,000,277,691 milreis, inclusive of the foreign debt, but not counting the Western Minas loan of £3,606,000. A new internal loan of 60,000,000 milreis at 6 per cent. and a short gold loan of £2,000,000 at 5 per cent. were raised in 1898 for the payment of the floating liabilities. The unpaid interest on the foreign loans, including railroad guarantees amounting to £1,130,000 a year, and an internal gold loan have been refunded in accordance with an arrangement made with the creditors in 1898 into a 5-per-cent. loan of £10,000,000, secured on the customhouse receipts. Another internal gold loan paying 4 per cent. has been converted into a 5-per-cent. currency loan. The sinking fund for the redemption of the foreign debt was in 1898 suspended for thirteen years. The interest on the foreign loans is 4 and $\frac{1}{2}$ per cent.; on the domestic loans, from 4 to 6 per cent. The improved financial position in 1899 enabled the Government to purchase and destroy 40,000,000 milreis of paper money, in accordance with a promise made to foreign creditors. An exchange was effected of 4-per-cent. internal gold bonds of 1889 for 6-per-cent. currency bonds of 1897, 1,800 milreis of the latter being given for 1,000 milreis of the former. The Government also redeemed 22,000,000 milreis of treasury bills given for military and naval purposes, and negotiations were begun for the redemption of the internal gold loan of 1868. The expenses in all departments of the administration were cut down, and by this means the total expenditures were reduced 17,000,000 milreis. By abolishing the naval and military arsenals 1,200,000 milreis were saved, and by disbanding over a fifth of the military force 7,000,000 milreis.

The Army and Navy.—The active army in 1897 numbered 4,000 officers and 24,160 men. Service is obligatory on all Brazilians for three years in the active army and three years in the reserve. The gendarmery numbers about 20,000 men. In 1898 the active army numbered 18,794 men, but in 1899 the effective was cut down to 14,824.

The naval force comprises 2 battle ships of the third class, the *Riachuelo* and *24 de Maio*, the smaller armorclads *Marshal Deodoro* and *Marshal Floriano*, the cruisers *Tamandare* and *Barroso*, 2 smaller cruisers, 5 monitors and coast-defense vessels, 12 small cruisers and gunboats, the torpedo cruisers *Tamoyo*, *Timbira*, and *Tupy*, and 8 first-class and 6 third-class torpedo boats. The latest vessels are the *Floriano* and her sister ship, built in France, displacing only 3,162 tons, yet having 13.7 inches of Harveyized steel side armor and a battery of 2 9.4-inch guns, 2 6-inch howitzers, and 4 4.7-inch quick firers.

Commerce and Production.—The chief crop of Brazil is coffee, of which 8,000,000 to 10,000,000 bags of 60 kilogrammes are produced annually.

The state of Pernambuco produces 22,860,000 pounds of sugar annually. In Rio Grande do Sul, the great grazing state, 340,000 cattle were slaughtered in 1898. In Minas Geraes gold is mined, and in Bahia there are mines of silver, lead, zinc, iron, manganese, and copper. The iron deposits of Brazil are enormous, but they are remote from coal mines. Cotton is grown in São Paulo, Bahia, and other states, and is manufactured into cloth under a protective tariff. Rubber is exported from Pará, gathered throughout the Amazon region. The exports of merchandise in 1897 were valued at the total sum of 831,806,918 milreis. The value of imports was 671,603,280 milreis. The chief articles were cotton cloth, woollens, iron, machinery, coal, flour, cattle, jerked beef, rice, codfish, pork, lard, corn, butter, olive oil, macaroni, tea, candles, salt, petroleum, timber, wine, and spirits. On spirits, tobacco, matches, provisions, cotton and woolen cloths, drugs, and medicines the import duties range from 80 to 120 per cent.; on machinery and agricultural implements they are light. The exports of coffee were valued in 1897 at 509,190,115 milreis; of rubber, 149,691,325 milreis; of tobacco, 23,971,821 milreis; of hides, 13,427,229 milreis; of cacao, 12,757,957 milreis.

The foreign colonies in southern Brazil are an important wealth-producing element in the total population of the country. They have settled away from the seacoast in the states of Rio Grande do Sul, Santa Catarina, Paraná, and São Paulo, where the climate is temperate and an enormous area of great fertility awaits development. In the first three of these states the natural facilities of the land are favorable to cattle growing, to agriculture of all kinds, to the raising of fruits, and to various small industries, while São Paulo is noted for its coffee, and produces little else. Here in the city and country there is an Italian population exceeding 100,000, which is being constantly augmented by fresh immigration. In Rio Grande do Sul and Santa Catarina the German residents already number over 60,000, mostly settled in Blumenau and the smaller colony of Brusque, in the latter state. German colonizing companies buy up large tracts of land at low prices, which they divide into small farms, to be sold on a system of easy installments to working colonists. In Rio Grande do Sul are also many Italians. Paraná has 93 foreign colonies, and 50,000 persons have immigrated since 1860. Of this number 23,000 were Poles, 17,500 Austrians, and 7,500 Italians. The Italians are trying to establish a silk industry. Nearly all the foreigners are prosperous and contented. They have no part in the public administration, but they enjoy complete liberty and pay few or no taxes. The state of Minas Geraes contains areas on the higher plateau that are well adapted to European settlement. It produces cattle and coffee, and contains promising gold fields recently discovered in many different localities. Bahia is the seat of the diamond-mining industry of Brazil, which after a long eclipse has a prospect of revival, new diamond fields having been discovered near the source of the San Francisco river, close to the border of Minas Geraes. Bahia and Pernambuco produce coffee, sugar, and cotton—staples which flourish throughout the central parts of the republic. In the northern provinces, occupying the valley of the Amazon, are the rubber forests, supplying \$50,000,000 worth of this product in 1898. The commercial situation of Brazil has been improved by the withdrawal of a part of the inflated paper currency and the consequent rise

in exchange. Still the exchange value of the milreis, which at par would be 54 cents, was only 12 cents in 1899. Coffee, the main product of the country, was still very depressed in 1899, owing chiefly to overproduction, the world's crop of 1898 having been about 850,000 tons, of which Brazil produced 660,000 tons, while the world's requirements were only 750,000. The crop of 1899 in Brazil was almost 600,000 tons. In 1900 many new plantations will come into bearing.

Navigation.—During 1897 there were 1,274 vessels from foreign ports, of 2,146,834 tons, entered at the port of Rio de Janeiro; 948, of 1,145,706 tons, at Pernambuco; 285, of 258,368 tons, at Ceará; 189, of 260,443 tons, at Maranhão; 241, of 51,763 tons, at Rio Grande do Norte; 194, of 185,488 tons, at Parahyba; 429, of 227,713 tons, at Paranaguá; and 474, of 294,145 tons, at Rio Grande do Sul.

The merchant fleet in 1898 comprised 229 steamers, of 94,262 tons, and 344 sailing vessels, of 88,000 tons. There were 212 steamers, of 70,680 tons, and 388 sailing vessels, of 26,637 tons, employed in 1897 in the coasting trade, in which, under the law that entered into force in December, 1896, no foreign-owned vessels can participate.

Railroads, Posts, and Telegraphs.—The railroads of Brazil had on Jan. 1, 1897, a total length of 8,662 miles completed and 4,670 miles under construction, besides 4,670 miles surveyed and 8,440 miles more projected. Of the completed lines, 1,982 miles belonged to the National Government, 3,260 miles to the states, 2,430 miles to subsidized companies, and 990 miles to other companies. Of the lines under construction 880 miles belonged to the states, 3,699 miles to subsidized companies, and 384 miles to other companies. The Government usually guarantees 6 or 7 per cent. interest on the capital of the subsidized lines. The cost of the Government railroads was 257,674,937 milreis, and the sums paid to cover deficiencies in the revenue amounted to 11,118,481 milreis.

The Government telegraph lines have a total length of 10,143 miles, with 21,936 miles of wire. The number of messages sent in 1895 was 1,283,695. The receipts were estimated for 1897 at 3,600,000 milreis; expenses, 9,844,722 milreis.

The postal traffic in 1897 was 33,441,000 letters and postal cards and 37,674,000 samples and printed packets.

Political Affairs.—Before the meeting of Congress on May 3 the Brazilian Government had agreed in principle to the proposition of Great Britain to submit to arbitration the question of the boundary line between Brazil and British Guiana, and had sent Joaquin Nabuco to London to negotiate an arbitration treaty. The country had remained perfectly tranquil since Campos Salles assumed the presidency. In his message to Congress the President asked for a revision of the pension law and the creation of a law dealing with the stamp duties, which the separate states had unconstitutionally appropriated. He also proposed measures to improve the collection of customs duties and other dues. The economic and financial reconstruction of the country required the good-will and the efforts of all Brazilians. The equilibrium of the budget without the aid of fresh issues or loans and without fresh taxation, which the country could not bear, the President hoped to achieve by strict retrenchment and economies. The commercial policy to be followed was to export everything that Brazil can produce better than other countries and import everything that other countries

can produce better than can Brazil. He approved the leasing of railroads, as the small lines already leased, which gave deficits under Government management, are now under private control yielding surpluses. The income derived from the railroads already leased, together with the payment by the banks of their indebtedness and the sale of Government assets, go to constitute the redemption fund, while the guarantee fund is derived from the gold customs duties, increased 5 per cent. The President asked Congress to abrogate the law of 1875 authorizing temporary issues. When Dr. Prudente de Moraes Barros transmitted the presidency to Dr. Campos Salles in November, 1898, he had effectually broken down the system of militarism that oppressed and demoralized the country during the administrations of Deodoro da Fonseca and Floriano Peixoto, though the effort nearly cost him his life on Nov. 5, 1897, at the hands of conspirators belonging to a band of unscrupulous political opponents, who plotted to bring his reforms to an abrupt end by assassination. The bullet struck down Marshal Bittencourt, the Minister of War, instead of President Moraes. The murderers were finally sentenced on July 5, 1899, to undergo thirty years of imprisonment.

BRITISH COLUMBIA, the westernmost province of the Dominion of Canada.

Politics and Legislation.—To the Pacific coast portion of Canada 1899 was a most progressive year, and at the same time a very stormy one politically. The Legislature was opened on Jan. 6 by Lieut.-Gov. T. R. McInnes. In the "speech from the throne" he said:

"In nearly all the leading industries of the province growth and improved conditions are to be observed. The output of the coal mines largely exceeded that of the previous year. The development of the quartz mines, especially of those in Kootenay, has been most satisfactory, while a like activity to that which has occurred there, it seems probable, may soon be witnessed in the Boundary creek district, when, by the completion of the railway now in process of construction, the immense bodies of ore known to exist there can be profitably developed. On the west coasts of the mainland and island there is also every probability of considerable mining developments shortly taking place. There is also likely to be a large increase within the present year in placer and hydraulic mining operations. Already some large enterprises of this character have been put in successful operation in Cariboo and, on a small scale, in the Om'neca district; while the recent discoveries at Atlin lake, in the northern part of the province, has disclosed deposits of auriferous gravel rich in quality and spread over a large area. In anticipation of an influx of population into that region, my Government has already taken steps for the proper administration of the district. In order to conserve the natural wealth in these gold gravels for the benefit of Canadian miners and Canadian traders, a bill will be placed before you prohibiting the acquisition of placer claims by aliens. After some years of depression the outlook for the lumbering industry appears more favorable, while the enterprise of those engaged in it has opened new and large markets for the products of our forests. I regret that the past season has not been a successful one for the salmon-canning industry on the Fraser river, owing to a combination of adverse circumstances. With abundant crops and an ever-expanding home market, there is little doubt that in the future agricultural pursuits will contribute much more largely to the wealth of the province.

"A great calamity visited the city of New Westminster in the disastrous conflagration in September last. But the energies and courage of her citizens rose to the emergency, and, encouraged by the sympathy and material assistance of the people of all parts of Canada, they put forth such efforts as have already caused the city to rise from its ashes. You will be asked to pass legislation to put the civic finances on such a stable basis as will maintain the high reputation of the royal city.

"With a view to remove existing inequalities in the present system of taxation, measures will be submitted to you for the remission of that part of the tax on personal property commonly known as the mortgage tax, and for the repeal of the law requiring men working in mines for wages to hold a free miner's certificate.

"Realizing the advantages to be derived from an absolute security in the titles to land and from an easy and inexpensive system of transfers of real-estate titles, my Government will lay before you a bill to introduce into this province what is known as the Torrens system of registration, under such arrangements as will make its adoption both convenient and advantageous to the owners of the property.

"In order to open up the public domain for settlement, while securing to the province the full benefit which it should derive from such a valuable asset, you will be asked to sanction certain changes in the land act.

"For the better protection of miners in coal mines, a bill will be laid before you prohibiting the employment underground of Japanese in these mines.

"You will also be asked to consider a measure designed to afford to prospectors on lands within the boundaries of the grants to railway companies the same freedom to prospect for the precious metals as is accorded to them on Crown lands.

"My Government has given much consideration to the present financial position of the province, and to the means by which important public works can be carried out without imposing undue burdens on the taxpayers; and you will be asked to pass legislation to provide for the deficit in the revenue for the last two years, and for obligations incurred under the authority of acts already on the statute books. Also to authorize certain changes in the methods of dealing with the provincial debt and in the management of the finances, whereby it is anticipated that both the credit of the province will be enhanced and important economies be effected."

Mr. Thomas Forster, who had been for eight years a member of the Assembly, was elected Speaker. In view of the closeness of the vote, as between the Semlin ministry and possible Opposition combinations, interest centered early in the session upon the vacating of certain seats through the trial of election petitions. The Government met the difficulty by introducing a bill to the effect that no petition should be tried during the current session, and that one member in particular should be free to sit in the House for a defined period. There could be no doubt as to its unprecedented nature, and the Opposition at once proposed the following amendment:

"That legislation in the direction of staying the course of the administration of justice is vicious in principle and is subversive of law and order and good government, and is calculated to bring the administration of justice into disrepute and make the courts of law mere mandatories of the political power that may be in the ascend-

ency. It has even been opposed to proper precedent to affect pending litigation, and therefore be it resolved that interference with the trial of an election petition, and the staying of the trial thereof, is wrong in principle and unwarrantedly trespasses upon the functions of the court, and is a matter that ought not to be dealt with by any bill."

The amendment was, however, defeated on a party division of 19 to 13. The election-petition bill was eventually passed, and then one of the most important measures of the session was dealt with—the alien mining law. The terms of the bill were as follow:

"1. The act may be cited as the 'placer mining act amendment act, 1899.'

"2. Section 3 of chapter 136 of the Revised Statutes is hereby repealed, and the following substituted therefor:

"3. (1) Every person who is not less than eighteen years of age and is a British subject shall be entitled to all the rights and privileges of a free miner under this act, and shall be considered a free miner under this act upon taking out a free miner's certificate, as long as such certificate remains in force. A free miner's certificate shall not be transferable. (2) No joint-stock company or corporation shall be entitled to take out a free miner's certificate under this act unless the same has been incorporated, and not simply licensed or registered under the laws of this province; and unless such company or corporation is authorized to take out a miner's certificate by the Lieutenant Governor in Council, such authorization may at any time be canceled, and in case of such cancellation such company or corporation shall not be entitled to take out a free miner's certificate under this act, but any free miner's certificate now in force shall remain in force until its expiry. The word 'person' in this section shall include only such companies or corporations aforesaid. (3) A miner's certificate taken out by any person not authorized so to do by this section shall be null and void. (4) This section shall not affect free miners' certificates issued before the coming into force of this section; and in case any person or corporation not allowed under this section to take out a miner's certificate has, prior to the coming into force of this section, acquired any interest in any claim under the provisions of the 'placer mining act,' such license may be renewed from time to time, but such renewed certificate shall not entitle the holder thereof to hold or acquire any interest in any claim under the said 'placer mining act,' except such interest so acquired prior to the coming into force of this section. (5) No free miner, after the coming into force of this section, shall hold any claim under said 'placer mining act,' or any interest therein, as trustee or otherwise, for any person who is not a British subject or for any corporation not authorized to take out a free miner's certificate as above provided."

The measure was duly passed, and it created consternation among the American miners in the province, and was the cause of vigorous protests addressed to the governments at Ottawa, Washington, and London.

The House sat for thirty-seven working days altogether, and on the thirty-eighth day the Lieutenant Governor came down to the House and assented to 101 bills, which, including the four previously so dealt with, made 105 bills in thirty-seven days.

One of the important measures was the act to provide for the settlement of disputes as to min-

ing claims in the Bennett lake and Atlin lake mining divisions. On account of uncertainty as to the boundary between British Columbia and the Northwest Territories, and on account of the manner in which the recorder's office in the Bennett lake and Atlin lake mining division was conducted under the late Government, disputes had arisen as to the ownership of placer mining claims in those mining divisions. It was desirable that such disputes should be settled in a summary and inexpensive manner, and therefore the Government introduced the "Bennett-Atlin commission act, 1899."

Another important act, introduced by the Chief Commissioner of Lands and Works, provided for construction of roads and imposing tolls for the use of them. It is cited as the "development toll roads act, 1899," and under it the Lieutenant Governor in Council may, out of moneys borrowed for that purpose, construct public roads in any part of the province, to be known as development toll roads.

Another, and a very much needed change, was the amendment to the land act, which sought to prevent speculators from getting hold of valuable portions of the province. The "land act amendment act, 1899," provides among other things that every person desiring to purchase unsurveyed, unoccupied, and unreserved Crown lands shall place at one angle or corner of the land to be applied for a stake or post, to be known as the initial post, and upon such initial post he shall inscribe his name and the angle represented thereby. The applicant shall give one month's notice of his intended application to purchase by a notice inserted, at the expense of the applicant, in the British Columbia Gazette and in any newspaper circulating in the district wherein such land lies. Such notice shall not include a greater area than 640 acres, and shall be dated, and state the name of the applicant, the locality, boundaries, and extent of the land applied for, and shall be posted in a conspicuous place on the land sought to be acquired and in the Government office, if any, in the district. The applicant shall also forthwith make an application (in duplicate) to the Chief Commissioner of Lands and Works to purchase the said land, and in such application shall describe, as accurately as possible, the location of the land, especially with reference to any rivers, streams, lakes, or other waters, and the applicant shall also state the purpose for which he requires the land.

It shall be the duty of the surveyor to classify the lands so surveyed as timber lands, first-class, second-class, or third-class lands, and he shall make full and accurate field notes of his survey, and upon completion of the survey shall file the notes and a report of his survey in the office of the Chief Commissioner of Lands and Works, accompanied by a statutory declaration verifying the notes, and showing the area of first-class, second-class, or third-class lands embraced in such survey; and such declaration shall also state whether in his opinion any of said land, and if so what, is likely to be required for the purpose of a town site or fishing station, and whether the granting of such land, or any of it, would prevent or hamper the development of any adjoining natural resources. The minimum price for the first-class lands shall be \$5 an acre; that of second-class lands \$2.50 an acre; and that of the third-class lands \$1 an acre. Provided, however, that the Chief Commissioner may for any reason increase the price of any lands above these prices.

The clause of the old act referring to reserves was amended so that the Lieutenant Governor in Council may at any time, by published notice signed by the Chief Commissioner of Lands and Works, reserve any lands not lawfully held by pre-emption, purchase, lease, or Crown grant for the purpose of conveying them to the Dominion Government in trust, for the use and benefit of the Indians, and may also similarly reserve any such lands for railway purposes or for such other purposes as may be deemed advisable.

The first session of the Eighth Parliament adjourned on March 2, after the following bills, among others, had been assented to in the Queen's name:

- To amend the police and prisons regulation act.
- To reduce the number of grand jurors.
- To incorporate several railway companies.
- Respecting the registration of real property.
- To amend the small debts act.
- To amend the master and servant act.
- To amend the provincial elections act.
- To incorporate the Chartered Commercial Company of Vancouver.

- To incorporate the Big Bend Transportation Company, Limited.

- To amend the escheats act, 1898.

- To amend the Constitution act.

- Respecting the Department of Mines.

- Respecting the Department of Lands and Works.

- To extend the rights of the Crown to prospect for minerals on railway lands to all free miners.

- Respecting liquor licenses.

- To amend the succession-duty act.

- To amend the assessment act.

- To amend the revenue-tax act.

- To amend the inspection of metalliferous mines act.

- To amend the mineral act.

- An act to provide for the settlement of disputes as to mining claims in the Bennett lake and Atlin lake mining divisions.

- To amend the liquor traffic regulation act.

- To amend further the placer-mining act.

- To borrow \$2,800,000 for certain purposes.

- To amend the farmers'-institutes and co-operation act.

In February a most complicated controversy took place as to jurisdiction between the provincial Government and the city of Vancouver, in connection with the leasing by the first named of Deadman's island, in Vancouver harbor, to an American manufacturer for sawmill purposes. The policy of the matter was also bitterly denounced in the city. During the same month the hottest by-election contest ever held in Victoria resulted in the return of the late Premier, J. H. Turner, and two supporters. About the same time the correspondence between the Government and Messrs. Mackenzie and Mann, refusing to carry out a contract authorized by the late Government for the construction of the Penticton Railway, caused much angry comment and controversy.

Late in June Joseph Martin, the Attorney-General, spoke at a banquet in Rossland, and used language so gross as to be only excusable from a cause which he did not advance. It appears to have been the culmination of a series of circumstances which made it impossible for him to remain longer in the ministry, and on July 3 Mr. Semlin requested his resignation, which, after protest and a sustained effort to hold his place, even by upsetting the Government and trying to form a new one, was finally given, and he was replaced as Attorney-General by Alexander Henderson.

Mr. Martin's influence was dependent upon the labor vote, and this he continued to hold. From the time of his retirement he devoted himself to forming new combinations against the ministry, and at the end of the year Mr. Semlin was holding office by a very slight thread.

Revenue and Expenditure.—The income of the province for the year ending June 30, 1899, was \$1,434,525. The principal items were: Dominion of Canada, railway lands, \$100,000; land sales, \$104,180; free miners' certificates, \$139,756; mining receipts general, \$159,432; real-property tax, \$109,367; personal-property tax, \$112,160; revenue tax, \$84,555; mineral tax, \$36,061; registry fees, \$63,093; "Chinese restriction act, 1884," \$29,900. The expenditures amounted to \$1,764,873.81, the principal items being: Public debt, \$362,330.31; civil government (salaries), \$176,662; administration of justice (salaries), \$134,838; legislation, \$34,525; public institutions (maintenance), \$111,610; hospitals and charities, \$50,700; administration of justice (other than salaries), \$112,600; education, \$304,560; public works, \$335,698.50.

The Speaker's salary was reduced from \$1,500 and sessional allowance to \$1,000. The hospitals were placed on a different basis. Each will receive \$500 a year and 50 cents a day for each patient treated. For the protection of works on Columbia river at Revelstoke \$40,000 was put down; for the courthouse at New Westminster, \$30,000; for the courthouse at Victoria (alterations), \$12,000; for Government buildings at Atlin and other places in North Cassiar, \$10,000. The Superintendent of Education, who formerly received \$2,400 per annum, was cut down to \$1,800 this year, and instead of four inspectors three only were provided for. Provision was made for the salary of a minister of mines at \$4,000, and of the deputy minister of mines at \$150 a month. These were new officers. For a provincial exhibit at the Paris Exposition \$15,000 was set apart. On the Cariboo trunk road \$24,000 is to be expended. The capitation grant to the cities of the province for education was as follows: Victoria, \$21,500; Vancouver, \$23,500; New Westminster, \$7,000; and Nanaimo, \$8,000.

Railways.—Large sums were spent in railway construction in 1898-'99. It is understood that the Canadian Pacific Railway Company has spent more than \$9,000,000 in building the Crow's Nest Pass Railway from Fort MacLeod to Kootenay lake. This outlay, \$6,000,000 in excess of the Government subsidy, has been in a great measure local. The procuring of ties, piles, and timber and the cutting of rock and other extensive works inseparable from railway construction in mountainous districts have caused expenditures materially beneficial to the entire province and western territories. The settlers in Alberta and adjacent territories found for the first time a continuous demand for all the garden and dairy produce they could bring to market, and the ranchers found local sale for a large quantity of cattle for slaughter. The demand for supplies was felt as far as the coast cities, and added materially to the boom that came with the Klondike migration.

The Boundary Creek Railway is another extensive work now under way, and it is estimated that the cost of the main line and its branches to the mines will exceed \$4,500,000. The building of this line along the Boundary creek and Kettle river valley has been undertaken without subsidy or other public aid. Along the line of construction the mining towns have felt the stimulating effect of these large expenditures, and the

sudden growth peculiar to mining regions has assumed a more permanent and substantial aspect. With the best modern appliances for construction work, the cost of the Crow's Nest Pass Railway has reached, according to reliable statements, \$28,000 a mile. In addition to these outlays, the Canadian Pacific Railway Company has built wharves at Nelson and at the railway terminus at the foot of Kootenay Lake. They have also established a steamer and barge service between these points, thus filling in the gap in the new route from the east into the mining districts of southern British Columbia.

Provincial Timber.—Mr. R. J. Skinner, Timber Inspector, in his annual report shows that the timber and cord wood cut on Crown lands during the eleven months ending Nov. 30, 1898, and not including that from Dominion lands and Esquimalt and Nanaimo Railway lands, was 70,755,866 feet; on timber leaseholds, 42,192,178; total, 112,948,044 feet, on which \$56,473.83 was paid in royalty. On private property, not subject to royalty, the cut was 11,598,614 feet, making the grand total cut 124,546,658. The estimated amount of royalty to be allowed for rebate on exportation was \$18,775.54. The net royalty on timber then would be \$37,698.29; to which must be added \$11,883.61, royalty collected on cord wood, making the total net royalty \$49,581.90. Add to this rental accruing from timber leases in 1898, \$46,012.29; special licenses (86 at \$50), \$4,300; and general licenses, \$6,210, and the total net revenue from timber sources is seen to be \$106,104.29.

Land Returns.—The total number of pre-emption records issued in 1898 was 467, against 402 in 1897; certificates of improvement, 144, against 204; certificates of purchase, 765, against 977; Crown grants, 951, against 766; the total acreage deeded was 371,394, against 609,597 in 1897; while 9,126 letters were received by the department, against 8,034 in the previous year.

Conservative Platform.—For the first time in the history of the province it has been decided to conduct elections on straight party lines, and the following is a summary of the Conservative platform as adopted at a large convention in New Westminster, Oct. 6, 1899: Approval of the principle of the eight-hour law; state ownership of railways; revision of voters' lists; aid in the construction of trails; official inspection of hoisting gear; to improve the administration of justice; to provide an effective system for settlement of disputes between capital and labor; to aid in agricultural development; to have the fisheries controlled by the province; to make the London agency of British Columbia effective; that indigent laborers be discouraged from seeking work in British Columbia; that servant girls be encouraged to immigrate to British Columbia; that mining be actively aided; that medical men and hospitals be aided in the interior; that the system of education be improved.

Salmon Canning.—There was a large falling off in the salmon pack in 1898. Irksome and frequently changing fishery regulations, coupled with the enforcement of the collection of duty on fish from United States waters, were detrimental to the fisheries in British Columbia, while these difficulties acted as a stimulus to the industry on Puget Sound, where last year the pack was double that of Fraser river. Still keener competition is feared from this quarter in future, owing to the easier conditions prevailing, the large amount of fresh capital recently invested, and the activity and forethought of the state fisheries authorities in propagating salmon. During

and Worship, Dr. Manuel M. Gomez; Minister of Finance, L. Gutierrez; Minister of the Interior and Justice, Macario Pinilla; Minister of Public Instruction, Colonization, Telegraphs, Public Works, and Industry, T. Valdivieto; Minister of War, J. E. Herrero.

Area and Population.—The area of Bolivia is 567,430 square miles. The population is estimated at 2,019,549, exclusive of about 250,000 uncivilized Indians. About one fourth the people are of European descent, one fourth mixed, and one half Indian.

Finances.—The revenue in 1896 was 3,566,777 bolivianos, or dollars, and the expenditure 4,264,681 bolivianos. In 1897 the revenue was 4,840,300 bolivianos, of which 2,691,723 bolivianos came from customs, 406,281 bolivianos from alcohol, 679,582 bolivianos from silver and minerals, 149,003 bolivianos from export duty on rubber and from patents, 238,890 bolivianos from postage and revenue stamps, and 149,000 bolivianos from nickel coinage. The revenue for 1898 was estimated at 5,194,593 bolivianos, and the expenditure at 5,713,897 bolivianos. The chief expenditures were 1,817,490 bolivianos for instruction and public works, 1,517,483 bolivianos for financial administration, and 1,519,218 bolivianos for the army.

The internal debt amounted in 1898 to 3,707,541 bolivianos. There was an external debt of 1,084,555 bolivianos due to Chilean creditors, having been reduced from the original sum of 6,500,000 bolivianos. For the payment of this 40 per cent. of the customs duties of the port of Arica was devoted.

The Army.—The standing army is about 2,000 strong. The National Guard is made up of all able-bodied Bolivians, who under the conscription law of 1892 are liable to serve between the ages of twenty-one and fifty in the line, the reserve, the extraordinary reserve, and the territorial guard. The total number in the army and the various reserves is reported to be 82,000 men.

Commerce and Production.—Bolivia produces enough wheat, corn, beans, and potatoes for food, and large numbers of cattle, sheep, and llamas. These last are the common beasts of burden. The wool grown in the country is made into cloth for the common people. Coffee is exported to Chili and the Argentine Republic. Sugar is grown and distilled into rum, and more is imported from Peru. Rubber is exported in increasing quantities. Cinchona and coca are also important articles of export. Bolivia is exceedingly rich in minerals, producing silver, tin, copper, lead, zinc, antimony, gold, and bismuth. The silver mined in 1894 amounted to 14,519,296 ounces. About 4,000 tons of concentrated tin ore and 2,000 tons of extracted metal are produced annually. The annual product of copper in the form of barilla is 3,000 tons. The value of the foreign trade is known only by estimates. The total imports were valued in 1897 at 24,467,100 bolivianos. The chief articles were provisions, hardware, wines and liquors, cotton, linen, woolen, and silk tissues, and apparel. The major part of the goods came from Germany, and considerable quantities from England. The total exports were valued at 23,121,320 bolivianos. The export of silver was 14,876,000 bolivianos in value: tin and bismuth, 3,821,000 bolivianos; copper, 2,650,000 bolivianos; rubber, 1,351,000 bolivianos. In addition to the reported exports, large quantities of goods are smuggled out of the country without paying duties. In addition to the above articles, wool, hides and skins, gold, coffee, cinchona bark, and coca are exported, and

rubber, the annual value of which is about 900,000 bolivianos.

Railroads, Posts, and Telegraphs.—A railroad runs from the Chilean port of Antofagasta to Uyuni, Huanchaca, and Oruro. About 500 miles are in Bolivian territory. Railroads to Peru and the Argentine Republic are projected.

The telegraph lines have a length of 2,260 miles. The post office in 1897 carried 1,983,522 internal and 516,722 international letters.

Overthrow of the Government.—An uprising against the Government of President Alonso met with success in April, 1899. The revolutionists under Col. Pando won a victory over the Government forces in a pitched battle, and when they entered Oruro the President fled over the border into Chili. A new Government was constituted immediately, and in a few days quiet was restored.

BRAZIL, a federal republic in South America. The legislative power is vested in the National Congress, consisting of a Senate of 63 members, 3 from each state and the federal district, and a House of Deputies, containing 212 members. The Senators are elected for nine years, one in each state every three years, by direct suffrage. The Deputies are elected every three years, as many for each state as it has multiples of 70,000 population. All male Brazilians able to read and write possess the franchise with the exception of soldiers in active service, members of monastic orders, and paupers and criminals. The President of the republic is elected by the direct vote of the nation for the term of four years.

The President is Dr. Manoel Ferraz de Campos Salles, who was elected for the term beginning Nov. 15, 1898. The Vice-President is Dr. Francisco Rosa e Silva. The Cabinet in the beginning of 1899 was composed of the following members: Minister of Foreign Affairs, Gen. Dionysio E. de Castro Coqueira; Minister of Finance, Dr. Bernardino de Campos; Minister of War, Gen. J. T. de Cantuaria; Minister of Industry, Marshal J. Rodriguez de Moraes Jardim; Minister of the Interior and Justice, Dr. Amaro Cavalcanti; Minister of Marine, Rear-Admiral Manoel J. Alves Barbosa.

Area and Population.—Brazil has an area of 3,209,878 square miles, with a population of 14,333,915 at the census of 1890, divided into 7,237,932 males and 7,095,983 females. The population of Rio de Janeiro was 522,651. The number of immigrants in 1896 was 157,948, of whom 96,324 were Italians, 24,154 Portuguese, 11,366 Austro-Hungarians, and 1,070 Germans.

Finances.—The revenue for 1897 was 293,223,100 milreis, and the expenditure 328,974,000 milreis. For 1898 the estimated revenue was 325,197,123 milreis; expenditure, 372,812,424 milreis. The budget estimate of revenue for 1899 was 346,164,000 milreis, of which import duties were expected to produce 222,000,000 milreis; railroads, 45,080,000 milreis; posts and telegraphs, 12,900,000 milreis; stamps, 10,000,000 milreis; waterworks of Rio de Janeiro, 2,000,000 milreis; lottery taxes, 1,000,000 milreis; tobacco duties, 2,000,000 milreis; other sources, 46,184,000 milreis. The expenditure for 1899 was estimated at 346,000,423 milreis, of which 16,009,897 milreis were allowed to the Ministry of the Interior and Justice, 1,832,412 milreis to the Ministry of Foreign Affairs, 26,439,932 milreis to the Ministry of Marine, 46,329,296 milreis to the Ministry of War, 89,464,676 milreis to the Ministry of Industry, and 165,924,210 milreis to the Ministry of Finance. The revised estimates made the total revenue 351,114,000 milreis, and expendi-

The legislative power is vested in the Sobranje, a single Chamber containing 157 members, 1 to every 20,000 inhabitants, elected for five years by manhood suffrage. A Great Sobranje of 300 members, specially elected, is summoned when an amendment of the Constitution, the succession to the throne, the appointment of a regency, or the cession or annexation of territory is in question.

The reigning Prince is Ferdinand, Duke of Saxony, the youngest son of Prince August of Saxe-Coburg-Gotha and of Princess Clementine of Bourbon-Orleans, daughter of Louis Philippe, King of the French. He was elected by the Great Sobranje on July 7, 1887, after the deposition of Prince Alexander of Battenberg, and was finally recognized by the signatory powers in March, 1896. The heir to the throne is Boris, born Jan. 30, 1894, son of Prince Ferdinand and Princess Marie Louise of Bourbon, daughter of Robert, Duke of Parma. Prince Boris was baptized a Roman Catholic, but on Feb. 14, 1896, was received into the Greek Orthodox Church. The Cabinet of ministers in the beginning of 1899, first constituted on Sept. 7, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs and of Worship, Dr. C. Stoiloff; Minister of Finance, Theodor Theodoroff; Minister of Justice, G. Zgureff; Minister of the Interior, N. Beneff; Minister of Public Instruction, Ivan Vazoff; Minister of War, Col. N. Ivanoff; Minister of Public Works and Ways and Communications, J. Madjaroff; Minister of Commerce and Agriculture, C. Velitchoff.

Area and Population.—The area of Bulgaria proper is 24,380 square miles, and that of Eastern Roumelia, or South Bulgaria, is 13,700 square miles. The population of South Bulgaria at the census of Jan. 1, 1893, was 998,431; that of the whole of Bulgaria was 3,310,713, comprising 2,504,336 Bulgars, 569,728 Turks, 62,628 Roumanians, 58,518 Greeks, 52,132 gypsies, 27,531 Spanish-speaking Jews, 16,290 Tartars, 6,445 Armenians, 3,620 Austrians and Germans, 1,221 Albanians, 928 Russians, 905 Bohemians, 818 Serbs, 803 Italians, and 3,820 of other nationalities. Sofia, the capital city, has 46,593 inhabitants; Philippopolis, the capital of Eastern Roumelia, 41,068. The number of marriages in 1895 was 31,230; of births, 138,338; of deaths, 90,210; excess of births, 48,128.

Finances.—The revenue was estimated for 1898 at 84,445,713 francs, and expenditure at 84,487,975 francs. For 1899 the direct taxes were expected to yield 33,836,000 francs, and indirect taxes 32,451,000 francs. The estimated requirements for the public debt were 20,934,146 francs; for the army, 22,623,224 francs; for the interior, 7,860,501 francs; for instruction, 7,548,555 francs; for public works, 6,731,693 francs.

The public debt consists of a loan of 41,290,000 francs for the purchase of the Varna and Rustchuk Railroad effected in 1888, 26,975,000 francs of the loan of 1889, and 98,825,000 francs borrowed under the loan act of 1892, besides 9,600,256 francs of the Russian occupation debt and 5,826,875 francs due to the Turkish Government. The Eastern Roumelian tribute was assumed by Bulgaria, but the Bulgarian tribute to the Porte and Bulgaria's share of the Turkish debt have never been fixed. In December, 1898, the Sobranje authorized a 5-per-cent. loan of 290,000,000 francs for the purpose of converting all categories of the national debt into a uniform debt.

The Army.—Military service is obligatory on all Bulgarians from the age of twenty. Mohammedans may pay for exemption, and on those

who are physically incapable of bearing arms a military tax is levied. Out of 40,000 young men called up annually about 16,000 are drawn by lot for active service. The nominal strength of the army in 1898 was 2,500 officers and 40,555 men, with 7,400 horses. The war effective is 126,970 men, with 23,432 horses and 312 guns. The infantry weapon is the Mannlicher repeating rifle of 8 millimetres bore. The artillery is armed with Krupp and Creuzot guns.

Commerce and Production.—The chief article of export is wheat. Other exports are live animals, woolen cloth, attar of roses, skins, cheese, eggs, silk cocoons, timber, and tobacco. The imports are textiles, metal goods, machinery, groceries, petroleum, paper, coal, salt, and fish. The total value of the imports in 1897 was 83,994,236 lei, or francs, against 76,530,278 lei in 1896; of the exports, 83,994,236 lei against 108,739,977 lei. The distribution of the commerce in 1897 is shown in the following table, giving values in francs, or lei:

COUNTRIES	Imports.	Exports.
Great Britain	23,077,918	17,293,624
Austria	21,614,382	3,600,351
Turkey	9,488,518	10,385,194
Germany	10,628,657	7,784,811
France	4,117,608	8,505,413
Belgium	2,367,679	5,123,891
Russia	4,300,018	74,684
Italy	3,158,751	753,691
Roumania	2,226,595	385,896
Greece	468,066	1,042,851
Servia	1,065,954	256,351
Switzerland	986,301	7,000
United States	328,525	17,354
Other countries	261,274	4,084,196
Total	83,994,236	59,790,511

Navigation.—During 1897 there were 8,306 vessels entered at Bulgarian ports, of 2,432,282 tons, and 8,298 cleared, of 2,434,875 tons.

Railroads, Posts, and Telegraphs.—The length of railroads open for traffic in 1898 was 612 miles, and 457 miles were building.

The post office forwarded 18,783,017 pieces of mail matter during 1897. The state telegraph lines had a total length of 3,250 miles, with 6,910 miles of wire. The length of telephone wire was 1,028 miles. The number of telegraphic dispatches sent during 1897 was 2,316,826. The receipts from the post office and telegraphs were 3,013,003 francs; expenses, 3,352,259 francs.

Political Events.—Differences between Prince Ferdinand and his ministers concerning the railroad and financial policy of the Government led to the resignation of M. Stoiloff and his colleagues on Jan. 28, 1899. M. Grekoff was intrusted with the formation of a coalition ministry, which he accomplished on Jan. 31, after his first negotiations with M. Radoslavoff led to nothing, and M. Stoiloff had declined to undertake to reconstitute the Cabinet, and M. Radoslavoff had failed to get one together independently. Finally, M. Radoslavoff consented to take office under M. Grekoff with three of his followers and four members belonging to no special groups. The arrangement was completed on the day of the death of the Princess of Bulgaria, Marie Louise of Bourbon, Princess of Parma, who had been a conspicuous figure in Bulgarian politics at the time when, against her desire, her son was baptized into the Greek faith, but who had since won the respect and admiration of the Bulgarians by her quiet and affable demeanor and her multitudinous charities. The new Cabinet was composed as follows: Premier

and Worship, Dr. Manuel M. Gomez; Minister of Finance, L. Gutierrez; Minister of the Interior and Justice, Macario Pinilla; Minister of Public Instruction, Colonization, Telegraphs, Public Works, and Industry, T. Valdivieto; Minister of War, J. E. Herrero.

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BRAZIL, a federal republic in South America. The legislative power is vested in the National Congress, consisting of a Senate of 63 members, 3 from each state and the federal district, and a House of Deputies, containing 212 members. The Senators are elected for nine years, one in each state every three years, by direct suffrage. The Deputies are elected every three years, as many for each state as it has multiples of 70,000 population. All male Brazilians able to read and write possess the franchise with the exception of soldiers in active service, members of monastic orders, and paupers and criminals. The President of the republic is elected by the direct vote of the nation for the term of four years.

The President is Dr. Manoel Ferraz de Campos Salles, who was elected for the term beginning Nov. 15, 1898. The Vice-President is Dr. Francisco Rosa e Silva. The Cabinet in the beginning of 1899 was composed of the following members: Minister of Foreign Affairs, Gen. Dionysio E. de Castro Coqueira; Minister of Finance, Dr. Bernardino de Campos; Minister of War, Gen. J. T. de Cantuaria; Minister of Industry, Marshal J. Rodriguez de Moraes Jardim; Minister of the Interior and Justice, Dr. Amaro Cavalcanti; Minister of Marine, Rear-Admiral Manoel J. Alves Barbosa.

Area and Population.—Brazil has an area of 3,209,878 square miles, with a population of 14,333,915 at the census of 1890, divided into 7,237,932 males and 7,095,983 females. The population of Rio de Janeiro was 522,651. The number of immigrants in 1896 was 157,948, of whom 90,324 were Italians, 24,154 Portuguese, 11,366 Austro-Hungarians, and 1,070 Germans.

Finances.—The revenue for 1897 was 293,223,100 milreis, and the expenditure 328,974,000 milreis. For 1898 the estimated revenue was 325,197,123 milreis; expenditure, 372,812,424 milreis. The budget estimate of revenue for 1899 was 346,164,000 milreis, of which import duties were expected to produce 222,000,000 milreis; railroads, 45,080,000 milreis; posts and telegraphs, 12,900,000 milreis; stamps, 10,000,000 milreis; waterworks of Rio de Janeiro, 2,000,000 milreis; lottery taxes, 1,000,000 milreis; tobacco duties, 2,000,000 milreis; other sources, 46,184,000 milreis. The expenditure for 1899 was estimated at 346,000,423 milreis, of which 16,009,897 milreis were allowed to the Ministry of the Interior and Justice, 1,832,412 milreis to the Ministry of Foreign Affairs, 26,439,932 milreis to the Ministry of Marine, 46,329,296 milreis to the Ministry of War, 89,464,676 milreis to the Ministry of Industry, and 165,924,210 milreis to the Ministry of Finance. The revised estimates made the total revenue 351,114,000 milreis, and expendi-

the Moderate Liberals, since these parties, agreeing only in their common enmity to the Clericals, could not consistently support each other's candidates until the first ballot had proved that their own had no prospect of being elected.

Opinion was much divided on the question of establishing a minimum living wage, and, while the majority believed that one ought to be established by law sufficiently high to allow a decent existence, all agreed that this minimum must vary according to local conditions.

Toward the end of June the Government brought forward the electoral bill that had been decided upon. This embodied not the proposal for cutting up the country into single districts, but a plan advanced by M. Van den Peereboom, which he called a compromise, but which was even more obnoxious to the Socialists and Liberals, because it was more flagrantly unfair. The former proposal was withdrawn because it encountered not only the fierce resistance of the various sections of the Opposition, but was condemned by the moderate Conservatives and some even of the stricter sect. As soon as the Government bill was announced the Brussels Socialists agreed to order a general strike of the workers of the city on July 5, when the debate would begin in the Chamber. A universal strike is a political weapon that has been employed in Belgium alone, where all workers are organized in trade unions and all unions are controlled by the Labor party. It was by means of a political strike that the extension of the franchise was wrung from the Government in 1893. On June 28 a great assemblage of demonstrators surrounded the Parliament buildings and the royal palace, which was dispersed only after a sharp conflict with the gendarmery, who charged repeatedly with fixed bayonets and drawn swords. The next day the Socialists in the Chamber called the Government to account for what they described as the brutalities of the police. The Prime Minister defended his electoral scheme as being of the nature of a compromise, and said that any other would be equally liable to attack. M. Van der Velde, one of the Socialist leaders, declared that his party would call upon the people to defend themselves, and M. Lorand demanded the postponement of the electoral law, declaring that otherwise disorder would continue both in the Chamber and in the streets. M. Furnemont moved to censure the Government, and his resolution was rejected by 87 to 31 votes. The sitting was suspended, owing to the uproar that followed, and cries for a republic were raised in the crowd assembled outside as the Deputies left the hall. The Socialist members marched at the head of an immense procession, which burst through the cordons of police that blocked the way and filled the great square, where M. Van der Velde delivered a speech. In the evening a mob made a demonstration before the Ministry of War which mounted gendarmes were unable to stop, and later the crowd showered stones upon the gendarmes, who charged with drawn swords in the great square. When the people began to pull up the paving stones to use as missiles against the gendarmes, these were replaced by civic guards. The next day and evening fiercer riots took place, and the gendarmes who attempted to clear the great square used ball cartridges after several useless bayonet charges, while the rioters hurled all kinds of missiles from the streets and houses, and began throwing up barricades. Before morning the military were brought into requisition. About 100 persons were injured. On the following day

the Premier, in reply to an appeal for conciliation from the Socialists on grounds of humanity, promised to postpone action in order to study the situation. The burgomasters of Brussels, Ghent, Antwerp, and Liège declared that they could not answer for public order if the electoral bill were proceeded with. Civic guards cheered the Socialist parades, and in some places went to Socialist meetings with arms reversed in token of surrender. Regular soldiers also attended these meetings in uniform. The royal family were said to be getting ready to flee from Belgium. In Liège the entire civic guard joined the Socialists at the Maison du Peuple. Monster meetings were held by Socialists and Radicals together at Antwerp, Brussels, and other places. The workmen of the mining districts and the great factory towns agreed to join in a general strike. On July 4 Minister Van den Peereboom proposed to appoint a committee, in which all parties should be represented, to consider fresh electoral proposals. M. Theodor, an independent member, then brought forward a proposal to extend the system of full proportional representation to the whole country. M. Van der Velde, speaking for both parties of the Left, accepted the Premier's proposal to refer all electoral schemes to a committee, as this amounted to a withdrawal of the original scheme, and said that the Left consented to form part of the committee as representing the country, which had achieved a great victory. All traces of agitation disappeared as soon as the Government thus capitulated. The committee was appointed, consisting of 15 members. On July 31 it reported against the Government measures, rejecting also the other proposals submitted to it. In consequence of the committee's decision the ministers on Aug. 1 tendered their resignation, and the King called upon M. De Smet de Naeyer to form a Cabinet. This was constituted on Aug. 4 as follows: Premier and Minister of Finance and of Public Works, M. De Smet de Naeyer; Minister of the Interior, M. De Trooz; Minister of Justice, M. Van den Heuvel; Minister of War, Gen. Cousebant Alkemade; Minister of Foreign Affairs, M. De Favereau; Minister of Agriculture, Baron Van der Bruggen; Minister of Industry and Labor and provisionally of Railroads, M. Liebart. The new Premier announced the adoption of a modification of M. Theodor's proposal of complete proportional representation. Instead of allowing a party commanding a clear majority of the electoral vote of a district to elect a whole list of candidates and fill all the seats, a new system is introduced limiting the seats assigned to the proportion of votes cast by each party, thus giving minorities full proportional representation everywhere. The Government bill provided for the addition of 15 new members to the Chambers.

BOLIVIA, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 18 members, elected for six years, and a House of Representatives of 64 members, elected for four years. Every male Bolivian of full age who can read and write possesses the franchise. The President is elected for four years by the vote of the nation, and is not re-eligible for the next succeeding term.

The President is Severo Fernandez Alonso, who entered upon the office on Aug. 15, 1896. The First Vice-President and President of the Congress and Senate is Dr. Rafael Peña; Second Vice-President, Dr. Genaro Sanjines. The Cabinet at the opening of 1899 was composed of the following members: Minister of Foreign Affairs

Aug. 1, to have said: "I have received a partial report of past conditions of affairs at some of these State institutions, and the facts have shocked me. It is frightful that servants of the people, paid out of the public treasury to maintain decency, to say the least, have shown such utter disregard of the importance of their duties. I intend to investigate the conduct of every public institution in the State. Several have already been inspected and privately overhauled by my orders without the knowledge of those in charge, and something will drop as soon as I return to Sacramento. It makes my blood boil when I think of some of these things." As a consequence of the investigation at the Agnews Asylum, the superintendent was dismissed on charges of immorality and two of the doctors for incompetency.

The Legislature was asked to make more stringent laws in order to stop the trade in opium at San Quentin prison. Guards were accused of smuggling in the drug for the use of convicts.

From a confession by one of the prisoners in March it was learned that a conspiracy had been formed to kill the guards and effect a wholesale delivery of prisoners, and on investigation the directors were convinced that the matter had not been exaggerated. Later, in May, a murderous assault was made upon one of the guards by a life prisoner. In view of these and instances of assaults by convicts upon their fellow-prisoners, the directors ruled that hereafter when a convict is found with a deadly weapon in his possession he shall be kept in solitary confinement for the rest of his term, even though that term be for his natural life. This went into operation, and in July seven men were undergoing this awful punishment—the man who assaulted the guard and the leaders of the conspiracy above mentioned. Four of them are life prisoners.

Railroads.—The right of the Railroad Commissioners to regulate the fares and freight charges of the Southern Pacific road has been the subject of litigation since 1895, in which year the board sought to establish a reduction of 8 per cent. in grain rates. The suit was dismissed on motion of the railroad company in May, the commissioners of this year having rescinded the action of their predecessors. A new schedule made by the commissioners, June 12, was resisted by the company, and threatened to bring on further litigation. The reductions were estimated to amount on the average to about 2 per cent.

The fruit growers of the State, having failed to get what they deemed fair and just rates from the owners of lines of refrigerator cars, formed an organization and determined to establish an independent line owned or controlled by the orchardists of the State.

A San Francisco newspaper makes the following comparison between the assessed value of railroad and other property: In 1884, when the mileage of the State was 2,721, the assessed value of railroad property was \$50,746,500. Last year, when the number of miles operated exceeded 4,400, the Board of Equalization assessed the railroads of the State at \$44,457,473. In the first-named year (1884) the assessed value of all other than railroad property was \$770,364,265. In 1898 it had increased to \$1,086,426,224. It is impossible that the value of other property than that belonging to the railroads should have increased 24 per cent., while that of the corporations declined 14 per cent. The value of the railroads was placed in 1899 for assessment at \$46,394,375.

Banks.—According to the report of the Bank Commissioners, the bank deposits in the State have increased during the past two years by the sum of \$50,000,000. The increase is not confined to any one locality, but has been distributed in almost equal proportions among commercial, national, and savings banks in city and country alike. The deposits in the savings banks of San Francisco amounted to \$113,294,213 at the date of the report, a gain of \$6,961,372.35 over the previous year; the deposits of interior savings banks aggregated \$37,048,949.60, an increase of \$2,862,565.33 for the year. The showing of the commercial banks incorporated under State laws is equally good, those of San Francisco exhibiting a gain of \$6,195,663.91 in deposits over those of the preceding year, and totaling \$40,677,836.57. The interior commercial banks had deposits to the amount of \$36,946,850.63, this being \$4,204,627.06 in excess of the preceding year. In addition to the above the national banks held deposits amounting to \$31,858,489.22, the increase in the past year being \$4,010,150.67. These figures, when aggregated, present a grand total of \$258,864,395.47, and an increase in one year of \$24,155,111.31.

The Union Savings Bank of San José was closed Jan. 30, and was declared insolvent. The County Bank at San Luis Obispo, the Commercial Bank of the same place, and the Bank of Paso Robles closed in March. The latter two were permitted later to resume. The Bank of Mendocino, at Ukiah, was closed in May.

Water Supply.—The Los Angeles Times published in August the results of an exhaustive inquiry into the recent development of a water supply in southern California. The Times prints reports from all the irrigated districts there, by which it appears that since the drought began a systematic search for water has been made, with a result that during twelve months past 30 inches have been added to the previous total. Of this, 10,797 inches are credited to Los Angeles County, 3,77 to San Bernardino County, 3,175 to Riverside County, 12 to Orange County, and 5 to San Diego County. In the case of the latter county the Times says that about 2 inches have been developed from wells, but that the permanent output is one fourth that. The estimates are the result of personal inspection by a member of the Times's staff, who traveled thousands of miles on his zigzag rounds of inquiry.

A convention for the conservation of the flood waters of the State was held in November. Resolutions were adopted, which were summarized in the statement that the convention favors the storage of flood waters by the National Government to the extent that such aid can be had by the State when national aid fails, and by private enterprise if both fail; the leasing of the public grazing lands is favored, and the inclusion in forest reserves of all public timber land lying about the head waters of our streams. The convention concluded its labors with the creation of a water and forest association, which is to be provided with an adequate income and is to labor for the measures which have received the approval of the convention.

Products.—The State's output of gold in 1898 was somewhat larger than that of 1897, and the yield of silver somewhat smaller. The estimate of gold produced was about \$14,833,721; of silver, \$414,055. The copper industry is growing, especially in Shasta and Siskiyou Counties. Shasta's copper product amounted to \$2,465,830. The value of the oil produced is placed at more than \$7,000,000 a year. The entire mineral product of

the State in 1898 was valued at \$27,289,079, more than \$2,000,000 above that of 1897.

The yield of oranges was about 12,000 car loads of 12 tons each, and that of lemons 2,500 car loads. These sold at wholesale and in auction rooms for \$11,018,125. About 25,000 tons of beet sugar were made. The fruit pack was approximately 2,000,000 cases, or about 50,000,000 cans. The dairy product was estimated at 23,391,128 pounds of butter and 5,148,372 of cheese. The estimated quantity of dry wines was 12,000,000 gallons; of sweet wines, 7,000,000; and of brandy for ten months, 1,050,000 gallons. The raisin crop was about 70,000,000 pounds. The prune crop was much smaller than usual, amounting to about 55,000,000 pounds by the lowest estimate. Only about one third of the usual wheat crop was raised—9,666,666 bushels.

San Francisco.—The number of manufacturing in the city during the year ending March 1 was 1,846; employees, 32,104; and the value of the product, \$77,189,116. The total transactions of the Clearing House in 1899 were estimated at \$985,000,000. The largest amount of clearings heretofore was that of 1891—\$892,426,713. The imports in 1899 to the port amounted to \$35,747,535.

Coulterville.—This mining town, in Mariposa County, was destroyed by fire in July—the third time it has suffered in this way.

San Pedro Harbor.—The beginning of work on the breakwater designed to make San Pedro a harbor of commerce and refuge was celebrated, April 26, by a jubilee, attended by about 20,000 people. The first load of rock was dumped by electric agency set in motion by the President at Washington.

Randsburg.—This mining district was organized Dec. 20, 1895. In 1896 it produced gold amounting to between \$200,000 and \$300,000; in 1897, \$500,000; in 1898, \$1,125,000. Recent developments are said to warrant expectation that when the account is made for 1899 it will show \$3,000,000. This was one of the most desolate regions in the West four years ago. A recent observer reports that the ore chamber of the Yellow Aster mine is already 40 feet high, and as many broad, without finding the outside terminus of the ledge in any direction. The excavation is too large to be timbered, and the owners are to put the mill in the mine, in the heart of the mountain. It is the intention to begin on top of the mountain and remove the whole mountain down to the ore bed.

Legislative Session.—The Legislature was in session from Jan. 2 till March 19. Thomas Flint was chosen President *pro tem.* of the Senate, and Frank L. Brandon secretary. Howard E. Wright was elected Speaker of the House, Alden Anderson Speaker *pro tem.*, and C. W. Kyle chief clerk.

A successor was to be chosen to United States Senator Stephen M. White. After a prolonged and bitter contest adjournment was had without an election, 104 ballots having been taken. The Republicans had 85 votes on joint ballot, the Democrats about 32. Republican candidates were Ulysses S. Grant, Daniel M. Burns, W. H. L. Barnes, Irving M. Scott, Robert N. Bulla, George A. Knight, Thomas R. Bard, and others; there was no caucus candidate. Democrats voted for Senator White, John Rosenfeldt, and others. D. M. Burns, to whom there was strong opposition on the ground that he was understood to be the candidate of the Southern Pacific Railroad Company, held about 30 votes only, but the opposition was not united. The final ballot stood: Grant, 30; Burns, 30; Barnes, 18; Scott, 4; Pat-

terson, 4; Estee, 1; White, 24; Phelan, 6; Rosenfeldt, 2; De Vries, 1. Charges of corruption having been made in connection with the vote for Senator, an investigation was ordered by a committee of the Assembly, whose report was filed Jan. 27. The findings of the committee were that the Speaker of the Assembly, Howard E. Wright, had received aid in his election to the Legislature or to the speakership from the friends of at least three of the candidates for the senatorship on the expressed or implied promise of his vote and support, and that he had secured the support of the San Francisco Call by leading the owner and the manager to believe that he was wholly unpledged. In regard to the charge that money was unlawfully expended for the election of Ulysses S. Grant, the report declared that Milton J. Green had spent a large amount of money to secure the election of Republicans to the Legislature, presumably to aid in the election of U. S. Grant to the senatorship. The report concluded:

"That, in view of the above findings of fact, your committee recommends: That the conduct of Howard E. Wright, Speaker of the Assembly, as above set forth, be held to be reprehensible in an extreme degree, and that no mere censure on the part of the Assembly can meet the requirements of justice.

"That the expenditure of large sums of money in aid of the candidacy of a United States Senator in the manner above set forth is wrong and reprehensible, in that it is calculated to corrupt morals, to debauch the political system, to deter poor men of ability from entering upon a senatorial campaign, and to give to the rich an unwarranted and unjustifiable advantage over men of equal ability and qualifications, but of limited means; that the receiving of money by legislative candidates from probable senatorial candidates, either directly or indirectly, in aid of their own candidacy, is reprehensible for the same reasons."

In consequence of this report the Speaker resigned, Jan. 30. Alden Anderson, Speaker *pro tem.*, was elected to the vacancy, and F. E. Dunlap to Mr. Anderson's place. A resolution to expel the ex-Speaker was defeated by a vote of 60 to 10. The affair was ended, March 9, by the dismissal of the contempt proceedings against M. J. Green. A bill was passed prohibiting candidates for the United States Senate from assisting directly or indirectly with money or property in the election of candidates for the State Legislature, on the expressed or implied promise that their votes shall be given to the senatorial candidate; and making the acceptance as well as the giving of such money or property a felony.

The bills introduced in the Assembly numbered 1,015; in the Senate, 750.

Several measures changing the regulations for election were carried. The form of the Australian ballot was altered by one of these, the chief provision of which requires that the names of the nominees of the different parties shall be printed in parallel columns, each column to be headed in display type by the name of the party whose candidates are listed therein. It does not follow the plan of permitting the voter to affix a mark under the party designation, and thus vote the straight ticket, but requires a mark to be placed opposite the name of each candidate voted for. The order in which the party names are to go on the ballot shall be directed by the Secretary of State, precedence to be given to the party which polled the highest vote at the previous State election. The purpose of the bill is to get the names of the candidates of each party together

as they used to be before the Australian ballot system went into effect.

Another of these measures states that a general primary election for all parties under the Australian ballot system is to be held in each county on a specified day previous to the conventions. It makes the primary mandatory, permitting nominations to be made only by conventions made up of delegates chosen under its provisions.

Provision was made for the punishment of offenses against the primary-election law. Other election enactments provided that, instead of printed registers, the signed affidavits that citizens make when registering shall be used by the precinct boards at the polls; ordered the posting outside the polling place of the result of the count there by the precinct election board before adjournment; and directed that the count of votes be continued each day, Sundays and holidays excepted, and for not less than six hours each day, until completed. Provision was made for the holding of municipal elections in odd-numbered years, as prescribed by the new San Francisco charter, and for special elections to choose boards of freeholders or to vote on charters or charter amendments.

An act was passed intended to repeal the State mining law relating to locations, and leave the United States law alone in force. The act has been supposed to have missed its design because by its wording it did not repeal the law of 1897, which was clearly its intent.

By the terms of the "anticartoon law" it is made unlawful to publish in any newspaper, handbill, poster, book, or serial publication or supplement thereto the portrait of any living person, a resident of California, other than that of a person holding a public office in this State, without his written consent. The only exception is the portrait of a person convicted of a crime. The act also prohibits the caricaturing of residents of California. In its sweep it includes offenses of publications made outside of California.

The so-called "signature bill" provides that "every article, statement, or editorial contained in any newspaper or other printed publication printed or published in this State, which by writing or printing tends to blacken the memory of one who is dead, or to impeach the honesty, integrity, virtue, or reputation, or publish the natural or alleged defects of one who is alive, and thereby expose him or her to public hatred, contempt, or ridicule, must be supplemented by the true name of the writer of such article, statement, or editorial, signed or printed at the end thereof." Owners or publishers of newspapers are made liable to a forfeit of \$1,000 for every such article published unsigned, half of which is to go to the State treasury and half to the plaintiff in the action. If the libel is in a book, it is sufficient if the author's name is on the title page. If it is in telegraphic news not furnished by the newspaper's own correspondent, but by a news agency, it is enough to have the name of the agency printed in connection with the dispatch.

A railroad consolidation act was passed, providing that "any railroad corporation owning any railroad in this State may sell, convey, and transfer its property and franchises, or any part thereof, to any other railroad corporation, whether organized under the laws of this State or of any other State or Territory, or under any act of Congress; and any such railroad corporation receiving such conveyance may hold and operate extensions and branches thereof, and do

any other business in connection therewith, as fully and effectually to all intents and purposes as if such corporation were organized under the laws of this State." This measure will have the effect of permitting the Santa Fé to operate its system as a whole and purchase the line from Mohave to the Colorado river, as it could not under former laws. Opposition was made to the bill on the ground that it would permit the Southern Pacific of Kentucky to carry out its scheme of combining the Central Pacific and the Southern Pacific for the purpose of reorganizing the same and making a foreign corporation of them, and remove the Southern and Central Pacific beyond the pale of the State's authority and enable the Southern Pacific to reorganize the roads on such a basis that their overcapitalization will result in heavily taxing the commerce of the State. City and town authorities were authorized to grant franchises to railroad corporations for construction of piers and wharves for terminal facilities, without offering the franchise for sale.

The new charter of San Francisco, which was adopted by popular vote at the spring election of 1898, was approved by the Legislature. It was afterward attacked in the courts on the ground that the elections were not conducted strictly according to law. Decision in the Superior Court was in favor of the charter, and appeal was taken to the Supreme Court.

By another act it was provided that no action against the State or its officers for percentages to the counties for collecting taxes can be maintained. This does away with threatened suits by which the State was in danger of being compelled to pay the counties an amount estimated at \$1,500,000. More than 40 of the counties had agreed to pay the law firms proposing to bring the suits from 25 to 50 per cent. of the amounts recovered. The claim made was, that an act of 1893, which was supposed to repeal a law of 1871-'72 providing for commissions to be paid to the auditors and assessors of the counties for collecting the State's portion of the taxes, was invalid because it received only 20 out of 40 votes in the Senate—not a majority, as appeared from the journal of that date. The Governor said in his message that he had examined the original roll call, and was satisfied that 21 Senators had voted in the affirmative, but one name was omitted by mistake in the printing.

A section of the political code was amended so as to provide for assessment for taxation of stock in national banks, though other bank stock is not taxed; but other banks are taxed for personal property, while national banks are exempt from such taxation under United States laws. A suit was brought in July to test the validity of the act.

A stringent law was made for protection of trade marks. Measures in the interest of farmers and horticulturists provide for prevention of the sale of process or renovated butter, for inspection of dairies and dairy stock, for a horticultural quarantine officer and a quarantine of diseased trees, cuttings, and fruit, and for the destruction of diseased shipments. It was provided that every commission merchant, agent, factor, or broker who deals in farm produce, poultry, grain, seeds, fruit, honey, or dairy products shall give a \$10,000 bond to the people of the State of California to insure the fulfillment of his contracts with consignors.

The office of State veterinarian was created. His salary is limited to \$2,000 and his expenses to \$500 a year, and he is to have an assistant

appointed by the Governor. This law was designed for the benefit of the cattle raisers of the State, who were injured by the establishment by the United States authorities of a quarantine line along the entire eastern border of California, over which cattle could not pass into Nevada. The State veterinarian is to determine from time to time with the Governor's approval the quarantine and other regulations necessary to prevent the spread among domestic animals of any malignant, contagious, or infectious disease found to exist among live stock, and he shall to that end co-operate with and obtain the assent of the United States authorities to the establishment or changing of quarantine lines.

New school laws provided for fire escapes on all schoolhouses more than one story in height; for the setting apart of a teachers' salary fund each year; for the establishment of kindergartens, grammar and evening schools, and the employment of superintendents in counties of the fifth class; and amended the law on the teachers' annuity and retirement fund. An appropriation was made for a State normal school in San Francisco. The State normal schools are each again to have a board of five trustees, exclusive of the Governor and Superintendent of Public Instruction. There is also to be a joint board, to be composed of the chairman and two other members of each local board. It shall meet in succession at San José, Chico, Los Angeles, and San Diego. An appropriation of \$45,000 was made for the completion of the San Diego Normal School.

The Adjutant General and others were authorized to examine the tracts of land offered for a camp of instruction at Santa Cruz, and select one if they thought best. A bill for reorganizing the National Guard was vetoed.

Other acts were:

Providing that State officers must pay for the printing, ruling, and binding done for them out of the funds granted for that purpose; and all work must be authorized by the State examiner.

Making it a misdemeanor to desecrate the United States flag by printing on it or attaching to it any advertisement.

Making it a misdemeanor to keep a book from a public library for thirty days after notice to return has been served.

Making it a misdemeanor to wear, unless entitled to, the badge, button, or other insignia of any organization.

Requiring the payment into the State treasury of all moneys belonging to the State received by institutions, commissions, and officers, and providing for the disbursement of all State moneys at the capital.

Requiring that street cars be provided with fenders and brakes.

Changing the boundary between Shasta and Lassen Counties.

The office of expert to the Comptroller was created; also that of Lake Tahoe road commissioner. The Supreme Court Commission was continued for two years, and the office of Commissioner of Public Works was continued, the annual salary being fixed at \$2,500.

The collateral inheritance tax law was amended so as to make it apply to legacies left to brothers, sisters, nieces, and nephews, who were formerly exempt.

It was enacted that "any person not authorized by law who brings into either of the State prisons of the State of California, or any reformatories therein, or within the grounds of such institutions, any opium, morphine, cocaine, or other

narcotics, or any intoxicating liquors of any kind whatever, or firearms, weapons, or explosives of any kind, is guilty of a felony, and upon conviction thereof shall be punished by imprisonment in the State prison for a term not less than one nor more than five years, and shall be disqualified from holding any State office or position in the employ of this State."

The following is a new section of the penal code: "Any appraiser appointed by virtue of section 1444 of the Civil Code of Procedure, who shall accept fees, reward, or compensation other than that provided for by law from any executor, administrator, trustee, legatee, next of kin, or heir of any decedent, or from any other person, is guilty of a misdemeanor."

Another section prohibits all prize fights, but permits sparring exhibitions not to exceed a limited number of rounds with gloves of not less than five ounces each in weight by a domestic incorporated athletic club upon the prepayment by such club of an annual license, to be fixed by the supervisors of each county; provided, that such club shall have a physician in attendance to examine the boxers prior to each exhibition, and determine whether they are in perfect physical condition.

By an amendment to the political code the trusts and estates created for the founding, endowment, and maintenance of Stanford University are confirmed, and power is granted to the trustees to receive property, wherever situated, for the university, and the Legislature may by special act exempt any or all of the university property from taxation. This provision made it possible for Mrs. Stanford to endow the university as noticed under "Education" in this article. The law before amendment did not allow an educational institution to accept such gifts.

Twenty-three constitutional amendments were proposed in the Senate, and 25 in the Assembly. Among those that were passed was one to exempt from taxation all bonds hereafter issued by the State or by any county, city and county, municipal corporation, or district in the State. Another exempts from taxation all buildings and so much of the real property on which they are situated as may be required for the convenient use and occupation of said buildings when the same are used solely, and exclusively for religious worship, but property rented for religious purposes will not be exempt. Still another provides that each Superior Court judge may appoint a competent stenographer for his court, who shall hold office during good behavior, and whose salary shall be paid by the State. His fees for transcription are payable in criminal cases by the county, and in civil cases by the party ordering the transcript. The salaries and fees are to be fixed by law. Another proposition is to amend so as to allow the payment of claims against San Francisco incurred in 1892-'93, amounting to \$210,000.

The general appropriation bill carried items for State officers, bureaus, and district agricultural societies, etc., amounting to \$5,056,944. The tax levy for the two following fiscal years will be \$12,096,494, including \$4,866,680 for the school fund, \$800,000 for orphans, half orphans, and abandoned children, and \$282,870 for interest and sinking fund. The cost of the legislative session was \$170,533, exclusive of the printing. The State printing office spent \$96,000 or more, the larger part of which was for work for the two houses.

The Governor vetoed a bill to make the golden poppy the State flower, and the Assembly voted to pass it over the veto, a proposition which re-

ceived but two votes in the Senate. A large number of bills failed to receive the approval of the executive. Many of these were appropriations, amounting in the aggregate to over \$800,000. Among the larger appropriations vetoed were \$250,000 for the San Francisco exposition, \$100,000 for the improvement of San Diego harbor, \$43,000 for buildings for the State University, \$25,000 for Lake Tahoe wagon road, \$31,000 for improvements at Mendocino Hospital, \$30,000 for improvements at Whittier School, \$20,000 for cottages at the Home for Feeble-minded Children, \$25,000 for a macadamized road between Sacramento and Folsom, \$100,000 for Oakland harbor, and \$7,500 for a well on the Capitol grounds. A bill to issue bonds for \$1,000,000 to complete the San Francisco sea wall was vetoed; one granting suffrage to women at school elections; one to create a State board of charities; others to create a free employment bureau to regulate the practice of horseshoeing, to regulate the practice of dental surgery, to suppress employment agencies, compelling banks to furnish sworn statements of funds on hand, and fixing the legal rate of interest at 6 per cent.

Earthquake.—Early in the morning of Dec. 25 a large part of southern California was shaken by an earthquake. The center of the disturbance was at San Jacinto, Riverside County, and the undulations continued about twelve seconds. Many buildings were damaged, and some walls and chimneys fell. It was reported that six squaws were killed on the Sabota reservation.

CANADA, DOMINION OF, a federated group of British provinces in North America.

Government and Politics.—The House of Commons was opened at Ottawa, March 16, 1899, by the Earl of Minto, Governor General of Canada, with the usual formalities. The speech from the throne, outlining the Government policy for the session, contained these passages:

"The negotiations which were set on foot during the recess between her Majesty's Government and that of the United States in reference to the settlement of certain questions in dispute between Canada and the latter country were, I grieve to say, greatly delayed by the illness and subsequent death of two of the most eminent members of the commission appointed for that purpose. Considerable progress has been made on several of the subjects submitted, but a serious disagreement arose between her Majesty's commissioners and the commissioners of the United States on the question of the delimitation of the boundary between Canada and Alaska. The question was referred by the commissioners to their respective governments, the commission being adjourned to the second day of August next, in the hope that in the meantime the difficulty might be overcome.

"I observe with pleasure that the mother country, Canada, and other British possessions have recently adopted a penny-postage letter rate. The satisfaction with which this action has been received by the Canadian people is a further proof of the general desire existing among our people for closer relations with the mother country and the rest of the empire. I am also glad to be able to state that the satisfactory condition of the finances of the country permitted a reduction, on Jan. 1 last, of the Canadian domestic letter rate from three to two cents, and, although such reduction involves a temporary loss of revenue, it is, nevertheless, confidently expected that the cheapened rate will prove of such service in the promotion of trade and in the general interchange of correspondence that,

within a reasonable time, the revenue of the Post-office Department will be restored to its former figure.

"Much information has been obtained since you last met relative to the extent and value of the deposits of gold and valuable minerals in the Yukon and other parts of Canada. The returns from the Yukon have so far proved sufficient to meet the heavy expenditure it was found necessary to incur for the purpose of preserving law and order, and it has been thought expedient in the public interest to authorize the construction of a line of telegraph for the purpose of maintaining speedy communication with the people of those distant territories. A measure will be submitted to you for the better arrangement of the electoral districts throughout the Dominion, as also several enactments of less importance."

THE EARL OF MINTO, GOVERNOR GENERAL OF CANADA.

Sir James D. Edgar was re-elected Speaker of the House, and upon his death, later in the session, Mr. Thomas Bain was chosen to succeed him. The following resolution was introduced by the Government in favor of reforming the constitution of the appointive Senate—which was largely opposed to them in politics—but was subsequently withdrawn:

"That an humble address be presented to her Majesty the Queen setting forth that the provisions of the British North America act, 1867, respecting the powers of the Senate of Canada in the making of laws, are unsatisfactory, and should be brought more into harmony with the principle of popular government, and praying that her Majesty may be pleased to recommend to the imperial Parliament a measure for the amendment of the said act, in such terms as will effectually make provision as follows: If the House of Commons passes any bill which the Senate rejects, or fails to pass, or amends in a way not accepted by the House of Commons, then if the House of Commons, at the next following session, again passes such bill, and the Senate again rejects or fails to pass it, or amends in a way not accepted by the House of Commons, the Governor General may, by proclamation, convene one or more joint sittings of the members of the two houses for the further consideration of such bill or amendments, and a

question whether such bill or amendments shall pass shall be decided by a majority of the members of the two houses present and voting, and the vote of any such joint sitting shall, as respects such bill or amendments, have the same force and effect as a vote of the Senate under the existing constitution."

The proposal was opposed by the Conservatives, mainly on the ground that its nature was unprecedented; that it could not be made to work in harmony with British principles of government; and that the equality of provincial representation in the upper house would be practically destroyed.

During the session Sir Charles Tupper, as Opposition leader, moved the following resolution in connection with preferential trade relations within the empire:

"In the opinion of this House it is the duty of the Government, in response to these repeated advances by the imperial authorities, to endeavor to secure for the produce of Canada that preferential treatment in the markets of the United Kingdom which would be of such inestimable value to the farmers and other producers of Canada competing against foreign rivals in the markets of the United Kingdom, would set in motion a great tide of immigration to our shores, people the vast wheat areas of the Canadian Northwest, enhance farm values in the older provinces, promote the unity of our empire, and speedily deliver it from dependence upon a foreign food supply."

It was defeated by a party vote of 77 to 41, the position of the Government being that their tariff discrimination of 25 per cent. in favor of Great Britain was all that could be done at present, and that Canada must trust to time and sentiment in England for the overthrow of free-trade principles and the establishment of a preference there for Canadian products. The Conservatives claimed that Canada should have asked for this before granting a preference in its own market.

The Transvaal situation evoked an interesting debate and a loyal resolution. The House adjourned on Aug. 11, after discussing a long resolution introduced by the Hon. G. E. Foster, in behalf of the Conservative party. It is given here as very fully propounding in an historical manner the policy of the Opposition and their view of the Government's administration:

"That the Liberal party went to the country in 1896 with a policy declaring, among other things, for (a) reduction in taxation, (b) decrease in expenditure, (c) diminution of the public debt, (d) extermination of the principle and practice of protection, (e) independence of Parliament and purity of the electorate, (f) abolition of railway bonuses or subsidies, and (g) an honest, economical, and business administration.

"That, comparing 1899 and 1896, the amount of customs and excise taxation has been increased by nearly \$7,000,000, or by over \$1 a head of the population, and the total amount collected from the people by over \$8,000,000, or about \$1.27 a head. The total expenditure has been increased by about \$8,000,000, or over \$1.25 a head; while the total amount, not including next year's supplementary, voted for the year 1899-1900 reaches the astounding sum of \$51,796,344, or \$13,000,000 more than was voted, and \$14,847,197 more than was expended, for the year 1896. The net debt has increased about \$6,000,000, and must be seriously augmented by the enormous expenditures authorized at the present session of Parliament.

"That, instead of exterminating protection and

establishing a system of free trade, or tariff for revenue only, we have incorporated the principle of protection into the tariff acts of 1897 and 1898, and the results of the year 1899-'99 showed that they have imposed a rate of 28.74 per cent. on all dutiable goods imported for home consumption, as compared with 20.94 per cent. in 1896, or upon dutiable and free imports for home consumption of 16.95 per cent., as compared with an average of 17.47 per cent. for the years 1892-'96 inclusive.

"That the independence of Parliament and the purity of the electorate have been illustrated by the traffic in seats in both houses of Parliament for purely party purposes; by the arbitrary and indefensible dismissals from office; by interested and unnecessary appointments to public offices in all branches of the service; by the written and authorized promise of office emoluments and subventions given to members of Parliament and others by the Premier and other members of the Government for electoral and party purposes; by the practical repudiation of the safe principle of open competition, tender and contract, as applied to the expenditures of public money, and the giving of contracts by private arrangement to party friends, who thus make profit for themselves at the expense of the country. That, instead of abolishing the system of bonus and subsidies to railways, they have this year, in addition to the payment of \$1,600,000 for the Drummond County Railway and \$140,000 yearly for ninety-nine years as rental to the Grand Trunk Railway Company, authorized the expenditure of not less than \$6,500,000 for general railway bonuses, in many instances for unnecessary and parallel lines. That the promise to maintain an honest, economical, and businesslike administration has been illustrated by: (a) The entry upon enterprises unauthorized by Parliament, and for which no appropriation had been made, which involved the expenditure of millions of dollars and the diversion of moneys specifically voted for distinct and well-defined services to these purposes, thus setting at naught the constitutional principle of parliamentary sanction and appropriation. (b) By undertaking the construction of public wharves and buildings which are either totally unwarranted on grounds of public necessity, or which should be left to provincial, municipal, or private enterprise. (c) By an extravagant, inefficient, and useless expenditure proposed and carried out in the Yukon district, and a management of affairs there which has exposed the whole system to general suspicion and provoked charges seriously affecting the character and efficiency of the administration and its officials, and compromising the good name of Canada, which have been refused thorough and adequate investigation before an independent and judicial commission. (d) By its inefficient conduct of the business of Parliament; its failure to achieve much-needed legislation for the good of Canada, to secure a fast Atlantic service, to settle any of the vexed international questions at issue, to induce any mutually preferential trade with other portions of the empire, or to open up a single new market under improved conditions, reciprocal or otherwise, in any quarter of the world."

The motion was defeated on a strict party vote after it had served its purpose of discussion, and the following measures, among many other minor ones, were then assented to by Lord Minto in the name of the Queen:

To incorporate the Edmonton and Slave Lake Railway Company.

To incorporate the St. Clair and Erie Ship Canal Company.

Respecting various railway and mining companies.

To incorporate La Compagnie du Chemin de Fer de Colonization du Nord.

To incorporate the Russell, Dundas and Grenville County Railway Company.

To incorporate the Athabasca Railway Company.

To authorize the amalgamation of the Erie and Huron Railway Company and the Lake Erie and Detroit River Railway Company.

To incorporate the Edmonton and Saskatchewan Railway Company.

To incorporate the Klondike Mines Railway Company.

To incorporate the Canadian Inland Transportation Company.

To incorporate the Canadian Permanent and Western Canada Mortgage Corporation.

To amend the winding-up act.

To incorporate the Sudbury and Wahnapiat Railway Company.

To incorporate the Rockland and Noyan Railway Company.

To incorporate the Canada Mining and Metallurgical Company, Limited.

There were no changes in the Government, except that the Hon. C. A. Geoffrion died, and on Sept. 30 James Sutherland was made a minister without portfolio. So far as the session was concerned, the Laurier Cabinet held its own, and it was not until afterward that slowness in the Transvaal contingent matter affected in some measure its popularity in the country. Besides Sir James D. Edgar, the Hon. J. F. Wood and the Hon. W. B. Ives died during this time, and in the year Senators Bellerose, Price, Sanford, Temple, Adams, Sutherland, and Boulton passed away. As nearly all these Senators were Conservatives, their successors have helped to modify the Senate problem from the Liberal standpoint. A political event of importance was the reorganization of the Conservative party by Sir Charles Tupper, and an exhibition of marvelous personal activity in traveling, speaking, and working on the part of the Conservative leader, who is now on the verge of seventy-nine years. Meanwhile, however, the Liberal majority in the House has grown steadily through by-elections, as is usual in Canada.

Federal Finances.—The total revenue on account of the consolidated fund was \$46,796,268, and expenditure on the same account \$41,760,343, so that there was an apparent surplus of \$5,036,625. But there was also an expenditure of \$9,130,772 on capital account, which raised the total expenditure for the year 1898-'99 to \$50,891,115, or \$4,094,747 more than the receipts. This, of course, caused an increase in the public debt, which stood at \$345,130,754 gross and \$266,054,711 net on June 30, 1899, as compared with \$338,370,254 gross and \$264,086,358 net on June 30, 1898. A noticeable feature of the public debt is that, in spite of the heavy increase in taxation, as shown by the enlarged revenue from customs, and excise, it was found necessary to make a temporary loan of £800,000 (\$3,893,333.33). On June 30, 1898, there was no temporary loan.

There was much generous legislation during the session of 1899 in favor of railways, etc., and the Hon. Mr. Tarte, as Minister of Public Works, announced that it was the policy of the Government to regulate its subsidies, etc., in accordance with the growing needs and prosperity of the country. Hence supplementary pledges, in

addition to the above-mentioned actual expenditure, were made, which increased the total of liabilities incurred for the year to \$60,000,000.

In the statement of the public debt on June 30, 1898, and on June 30, 1899, the liabilities were as follow:

ITEMS.	1898.	1899.
Payable in England	\$227,958,837	\$227,958,837
Temporary loan		3,898,333
Canada	9,111,811	8,931,644
Bank circulation fund	1,927,206	2,046,834
Dominion notes	22,178,194	24,236,467
Savings banks	50,113,941	50,241,715
Trust fund	8,518,495	8,643,743
Province accounts	16,406,444	16,672,687
Miscellaneous and banking	2,155,326	2,505,494
Total	\$338,370,254	\$345,130,754

The statement of assets was as follows:

ITEMS.	1898.	1899.
Sinking funds	\$40,876,158	\$43,358,643
Other investments	6,371,528	6,371,528
Province accounts	10,603,220	10,671,783
Miscellaneous and banking	16,432,991	18,674,090
Total assets	\$74,283,897	\$79,076,044
Net debt, June 30	\$264,086,358	\$266,054,711

Prohibition.—Following upon the prohibition plebiscite or referendum in 1898, by which a small majority had been recorded for the principle in the Dominion as a whole, and a large majority against it in the province of Quebec, there was much discussion throughout the country. The Government refused to take any action under the circumstances, and the ensuing letter, dated March 4, 1899, from Prime Minister Laurier to a prominent prohibitionist in Toronto, explains its position fully:

"When the delegation of the Dominion Alliance waited upon the Government last fall to ask, as a consequence of the plebiscite, the introduction of prohibitory legislation, they based their demand upon the fact that, on the total of the vote cast, there was a majority in favor of the principle of prohibition. The exact figures of the votes recorded were not at that time accurately known, but the official figures, which we have now, show that on the question put to the electors 278,487 voted yea and 264,571 voted nay. After the official figures had been made public, it was contended by some of the opponents of prohibition that the margin of difference between the majority and the minority was so slight that it practically constituted a tie, and there was, therefore, no occasion for the Government to pronounce either one way or the other. The Government does not share that view. We are of the opinion that the fairest way of approaching the question is by the consideration of the total vote cast in favor of prohibition, leaving aside altogether the vote recorded against it. In that view of the question, the record shows that the electorate of Canada, to which the question was submitted, comprised 1,233,849 voters, and of that number less than 23 per cent., or a trifle over one fifth, affirmed their conviction in the principle of prohibition. If we remember that the subject of the plebiscite was to give an opportunity to those who have at heart the cause of prohibition, who believe that the people were with them, and that if the question were voted upon by itself, without any other issue which might detract from its consideration, a majority of the electorate would respond, and thus show the Canadian people prepared and

ready for its adoption, it must be admitted that the expectation was not justified by the event. On the other hand, it was argued before us by yourself and others that, as the plebiscite campaign was carried out by the friends of prohibition without any expenditure of money and without the usual excitement of political agitation, the vote recorded in favor of it was comparatively a large one. This statement I did not then controvert, nor do I controvert it here and now. I would simply remark that the honesty of the vote did not suffer from the absence of those causes of excitement, and that even if the totality of the vote might have been somewhat increased by such cause, its moral force would not have been made any stronger. I venture to submit for your consideration, and the consideration of the members of the Dominion Alliance, who believe in prohibition as the most efficient means of suppressing the evils of intemperance, that no good purpose would be served by forcing upon the people a measure which is shown by the vote to have the support of less than 23 per cent. of the electorate. Neither would it serve any good purpose to enter here into further controversy on the many incidental points discussed before us. My object is simply to convey to you the conclusion that, in our judgment, the expression of public opinion recorded at the polls in favor of prohibition did not represent such a proportion of the electorate as would justify the introduction by the Government of a prohibitory measure."

This view of the case naturally did not please the Prohibitionists, and at a meeting in Toronto of 400 delegates, on July 11, the following resolutions were passed, together with an expression of opinion in favor of woman suffrage and the support of prohibition candidates in ensuing elections:

"That in view of the substantial majority in favor of prohibition of all the votes polled throughout the Dominion in the recent plebiscite, including an overwhelming majority in all the provinces but one, and a large proportion of all the possible votes in those provinces, this meeting desires to express its strong dissatisfaction at the failure of the Government to take any steps to give effect to the will of the people as expressed at the polls.

"That this convention declares that nothing short of the total prohibition of the manufacture, importation, and sale of intoxicating liquor for beverage purposes throughout the Dominion can be accepted as a settlement of the liquor question. That such prohibition is the right and only effective remedy for the evils of intemperance, and must be steadily pressed for until obtained.

"That, in view of the large vote and the great majority recorded in favor of prohibition in six provinces and the Northwest Territories, the least measure of immediate legislation that could be looked upon as reasonable would be such as would secure the entire prohibition of the liquor traffic in and around these provinces and territories.

"That such legislation ought to be enacted by the Dominion Parliament, which alone could prohibit the sending of intoxicating liquor into prohibition provinces from places in which prohibition was not in operation.

"That failure to enact at least this measure of prohibition must be considered inexcusable disregard and defiance of the strong moral sentiment of the electorate so emphatically expressed in the plebiscite.

"That Prohibitionists ought to oppose any

government or party, or any candidate, that will refuse to recognize and respond to the demand of the people to at least the extent of such legislation."

The Pacific Cable.—Progress was made in connection with the important project of an all-British cable between Canada and Australia after an interval during which it threatened to fall through altogether. On July 24, 1899, the Postmaster-General, the Hon. William Mulock, moved a formal resolution in Parliament to provide for its construction. He pointed out that the subject was one with which the public had become comparatively familiar. The enterprise was not intended primarily as an investment from which dividends were expected, but was designed to unite more firmly the different portions of the empire. The subject was first mooted at the conference of 1887 in London, and afterward at the conference of 1894 at Ottawa. The question that chiefly concerned the people now was that of cost. He did not think that the monopoly enjoyed by the Eastern Extension Cable Company at Hong-Kong for twenty-five years, from 1893, would seriously interfere with this new enterprise, or prevent it from securing a fair share of the business of China and Japan. The Imperial Government had power, if it wished, to purchase the line from Hong-Kong to Singapore for £300,000, and in any event it was quite inconceivable, if Canada and Australia had decided to unite themselves by the construction of a cable, that any monopoly could prevent them from establishing a connection with China and Japan. He believed that the Eastern Extension Cable Company would recognize the irresistible force of the empire, and render a duplication of lines unnecessary unless the volume of business should happen to require it. As to the extent to which the scheme would involve Canada financially, it was of course impossible to give anything but estimates. The line would have to be laid in places at a depth of 3,000 fathoms, which exceeded the depth of any cable at present; but once it was laid this circumstance would help to preserve it. The estimate of cost made by the Imperial Pacific Cable Committee was £1,422,000. Since then the cost of material had appreciated to the extent of about £170,000, making the total estimated cost £1,592,000. To this it was proposed to add £108,000 as a margin, and to figure the total cost at £1,700,000. It was confidently anticipated that the cable would become a paying enterprise within a very few years. The cost of maintenance, repairs, sinking fund, and interest would be £144,886, and it was believed by experts that, after paying off these charges, there would be a surplus for the first year of operation of £1,114, which would increase by the fifth year to £124,565. The proposal involved Canada's becoming interested to the extent of five eightieths in the profit or loss. Great Britain would have five eightieths, and New Zealand, Queensland, New South Wales, and Victoria two eightieths each. The intention was, that each country should be represented on the governing board in proportion to its interest, but in order to bring this about the board would have to consist of 18 members, which would be too large. It had therefore been decided that the board should be composed of 8 members, of whom 3 would be from Australasia, 3 from Great Britain, and 2 from Canada.

The Militia.—In 1899 there were upon the regimental establishment of the militia 3 regiments of a permanent force—practically regulars—numbering 61 officers and a total of 986 officers

and men. The active militia numbered 36,650 men, with 3,736 horses, and the Government expenditure in 1897-'98 was \$1,681,613. Gen. Hutton, as commander of the militia, during the year made strenuous efforts to improve the spirits, the training, and the drill of the force. The annual drill throughout the country was the most successful ever held. The general's annual report to the Government was a widely discussed and most important document. In it he says:

"The existing condition of the military forces of the Dominion can only be characterized as unsatisfactory in the extreme. The troops themselves generally are endowed with a profound patriotism, gifted with an excellent physique, and infused with that zeal and aptitude for military service which is an historical attribute of the Canadian people. The Canadian militia consists of a number of small units of cavalry, artillery, and infantry, of varying strength and of a varying condition of discipline and efficiency. Valuable as such a force may be in the fighting qualities of its personnel, it is useless for military purposes in the absence of a trained general staff, in the absence of administrative departments, and in the absence of an adequate supply of those stores of arms, ammunition, and equipment which are indispensable to the maintenance of an armed force intended for military operations. The militia force of Canada is not, under the existing system, an army in its true sense; it is but a collection of military units without cohesion, without staff, and without the military departments by which an army is moved, fed, or ministered to in sickness. There are no officers of the Canadian militia who have received training in the higher functions and responsibilities of the general staff of an army. I need hardly remark that it is the staff which constitutes the brains and motive power of an army. There are no military administration departments at present in existence. With the exception of blankets and tents, there are not sufficient stores to enable a military force of any size to be placed in the field. A reserve of arms and ammunition is required, based upon a recognized scale. There are no stores of reserve clothing. I am not in a position to report fully upon the standard of military proficiency attained by the whole of the troops under my command. The fact, however, that the training of rural battalions has in the past been spasmodic and uncertain renders the efficiency generally of the whole of the militia an undetermined factor of defense. Until the training of the rural troops is an annual fixture it would be folly to suppose that the militia of Canada as a whole can attain any satisfactory standard of military knowledge, or be reckoned upon as a solid and dependable military force. It may be assumed that two factors govern the future organization and administration of a Canadian army, as follows: (a) The defense of Canadian soil; (b) the power to participate in the defense of the British Empire. It was justly claimed for Canada that she is now a nation. In establishing this claim it must equally be accepted that with her birth as a nation are indisputably born the responsibilities of self-defense. The defense of its own territory is the primary duty of a state. As a most important element in the defense of Canada, I can not but impress the necessity of the naval defense of Lakes Erie and Ontario. The militia act of 1886 contemplated the formation of a naval militia brigade, and I strongly recommend that steps should be taken with that intention. Training ships with an instructional staff might be ob-

tained from the Admiralty. I feel sure that the formation of such a force would be productive of most valuable results, not only as a strong and most important element of defense, but as a means of educating the seafaring population and of improving the shipping interests of the inland waters of Canada. For the power to participate in the defense of the British Empire it will be obvious that the field troops above alluded to could be made quickly and readily available. Active operations could thus be undertaken conjointly with other British troops in whatever part of the empire it might be the desire of Canada to employ them.

"Under the existing circumstances considerable increase to the present strength of the militia force is inadvisable, but I wish most strongly to urge that a complete though gradual change should be effected in the organization and administration of the whole force, so as to conform to the requirements of the principles which I have ventured to submit. This change can be effected with comparatively small increase to the yearly budget. It will be of interest to note that the Canadian people, who have a frontier of 3,260 miles contiguous to a foreign state, pay less per head of its population toward the defense of its own soil than any other country in the world. It has been estimated that, exclusive of capital expenditure upon guns, stores, etc., an expenditure of \$1,650,000, or 33 cents per head of the population, would be sufficient for the requirements of the force proposed during the next financial year. This will be an increase of \$130,000 upon the estimates of 1897-'98. A comparison of the military expenditure with that of other self-governing colonies of the empire will make it apparent that the annual outlay of \$2,000,000 upon her defenses will be the lowest expenditure to expect of the Dominion in the near future, with its vast resources, its increasing wealth, and its ever-widening responsibilities. The creation of a militia army upon the lines indicated will transform existing militia units into a military force which shall in some degree, at least, be worthy of the Canadian nation, and be equal to maintaining the rights and liberties of the Canadian people. It will be, in its true sense a national army, and will as such be able not only to keep inviolate the integrity of Canadian soil, but it will be capable of contributing to the military defense of the British Empire in a manner and with a power which will place Canada in a position of unparalleled dignity and influence among all the possessions of the Crown."

Canada and South Africa.—The pivotal point of Canadian history in 1899 was the sympathy shown to fellow-subjects in South Africa, the wave of imperial sentiment which swept over the country, and the sending of the Canadian contingent. On July 30 the following resolution was passed unanimously by the House of Commons on motion of the Premier, seconded by Mr. G. E. Foster, and approved by a letter from Sir C. Tupper:

"That this House has viewed with regret the complications which have arisen in the Transvaal Republic, of which her Majesty is suzerain, from the refusal to accord to her Majesty's subjects now settled in that region an adequate participation in its government.

"That this House has learned with still greater regret that the condition of things there existing has resulted in intolerable oppression, and has produced great and dangerous excitement among several classes of her Majesty's subjects in her South African possessions.

"That this House, representing a people which has largely succeeded, by the adoption of the principle of conceding equal political rights to every portion of the population, in harmonizing estrangements, and in producing general content with the existing system of government, desires to express its sympathy with the efforts of her Majesty's imperial authorities to obtain for the subjects of her Majesty who have taken up their abode in the Transvaal such measure of justice and political recognition as may be found necessary to secure them in the full possession of equal rights and liberties."

The Senate passed a similar resolution. As soon as it became apparent that war was inevitable private offers for military service were made to the Canadian and Imperial governments in large numbers, sometimes whole regiments offering. The reply was issued, both in Canada and in Australasia, that no troops were needed. Then, on Oct. 2, at a large meeting of officers that was held in Toronto, the following resolution was passed:

"That the members of the Canadian Military Institute, feeling that it is a clear and definite duty for all British possessions to show their willingness to contribute to the common defense in the case of need, express the hope that, in view of impending hostilities in South Africa, the Government of Canada will promptly offer a contingent of Canadian militia to assist in supporting the interests of our empire in that country."

There was some hesitation on the part of the Government at first. No precedent existed, and they did not know how the step would be taken by the French Canadians. The Premier made a tentative announcement that he could not do anything without a meeting of Parliament, and, as every one believed, that would make the offer too late. Within a few days the sentiment from one end of the country to the other was so strongly shown, and the Opposition, led by Sir C. Tupper, so clearly expressed its willingness to any action taken, that the Government gave way and at once organized with efficiency and dispatch the contingent of 1,000 men, which was all the Imperial Government would accept. A political storm was raised, however, by Mr. J. Israël Tarte, Minister of Public Works, insisting, in behalf of the French-Canadian element, that the order in council should include words declaring that the action ought not to be considered a precedent. It was decided that the expenses of the contingent should be paid to Cape Town only, although vigorous protests against this decision were made. There was no question of loyalty or disloyalty in the matter. Mr. Tarte, as the Liberal party leader in Quebec, expressed himself in a published correspondence as being really in favor of imperial federation, and as believing that the French Canadians themselves would support it when it was fully placed before them. But he regarded the sending of the contingent as practically a part of imperial federation, and he did not wish to be rushed into the policy without parliamentary consideration and public discussion. This slight and vague opposition helped to raise the popular feeling to an intense degree of enthusiasm, and it is doubtful if any event in Canadian history has aroused such manifestations as the raising and departure of the volunteers from the different Canadian centers—Vancouver, Winnipeg, Halifax, St. John, Toronto, Montreal, and Quebec. The contingent sailed on Oct. 30, and arrived at Cape Town on Nov. 29.

The Alaska Boundary.—This question produced much international discussion. The general failure of the Joint High Commission, after its prolonged sessions at Quebec and Washington, was due to difficulties in this connection, and on Feb. 20, 1899, Senator Fairbanks and Sir W. Laurier issued the following statement from the United States capital:

"The commission adjourned, to meet at Quebec on Aug. 2, unless the chairmen of the respective commissions shall agree upon another date. The commission has made very substantial progress in the settlement and adjustment of many of the questions upon which it has been earnestly engaged. But it has been unable to agree upon the settlement of the Alaskan boundary. The problem has been a complicated and difficult one; but the commissioners, acting in the utmost friendliness and cordiality, have been unable to agree upon a satisfactory adjustment. The difficulties, apart from the immediate delimitation of this boundary by the commission itself, arise from the conditions under which it might be referred to arbitration.

"The British commissioners desired that the whole question should be referred on terms similar to those provided in the reference of the Venezuelan boundary line, which, by providing an umpire, would insure certainty and finality. The United States commissioners, on the other hand, thought the local conditions of Alaska so different that some modification of the Venezuelan reference should be introduced. They thought the reference should be made to six eminent jurists, three chosen by each of the high contracting parties, without providing for an umpire, they believing that finality would be secured by a majority vote of the jurists so chosen. They did not see any present prospect of agreeing to a European umpire, to be selected in the manner proposed by the British commissioners, while the British commissioners were unwilling to agree to the selection of an American umpire in the manner suggested by the United States commissioners. The United States commissioners further contended that special stipulations should be made in any reference to arbitration, that the existing settlements on the tide waters of the coast should in any event continue to belong to the United States. To this contention the British commissioners refused to agree. It was therefore deemed advisable to adjourn to a convenient date, in order to enable the respective governments to consider further the subject with respect to which no conclusion yet has been reached."

The commission did not meet again, and during the entire summer negotiations proceeded between the three governments. Charges were very freely made by the American press that Canada was blocking the way; that she wanted American territory, and was generally aggressive and unreasonable. On July 23 the Canadian Parliament was the scene of an international sensation. Sir Charles Tupper spoke at length upon the subject of the boundary, and in vigorous language declared that it must be settled in one way or another; and Sir Wilfrid Laurier replied in carefully chosen words, of which the following paragraph aroused wide discussion:

"Under such circumstances there are only two methods of settling the difficulty on fair and honorable terms. One is, giving and taking—Canada surrendering a little of her pretensions and the United States surrendering a little of her pretensions—but I have no hope up to this moment, or very little hope, that we can settle the question by any compromise at all. If we have

no hope that we can settle the dispute by compromise, there are only two other ways in which we can settle it. One would be by arbitration, and the other would be by war. I am sure that no one would think of war; and everybody would agree that, though sometimes our patience would be sorely tried, though sometimes we might believe that our opponents were taking undue liberties with us and undue advantage over us, still everybody would agree that we must exhaust all peaceful means of reaching a settlement by arbitration."

The idea set forth by Sir Charles Tupper was, in substance, that it was time to do more than indulge in amiable and endless palaver with our American cousins. They, being in practical possession of the disputed territory, were only too willing to keep up the discussion indefinitely, while in the meantime American miners were taking out most of the gold and American traders were enjoying all the commercial advantages of the Yukon. Sir Charles paid his respects to English statesmen in a manner which probably did not afford them any great pleasure. He told them, in good round terms, that his long years of experience and observation had taught him that the abiding weakness of the powers that be in England is a tendency to consult the feelings and wishes of the United States altogether too much. He congratulated the Canadian Government upon its determination to have no more meetings of the Anglo-American Commission unless and until this question was in a fair way of settlement. By way of meeting the situation as it now stood, he suggested that the Government take power to construct a railway from Kitimat Arm in British Columbia to Dawson via Teslin lake, and also to provide that no mining licenses should be issued to any but British subjects. He assured the Government of hearty support from the Conservatives in whatever might be done to uphold the interest and the dignity of Canada.

Sir Wilfrid Laurier evidently thought that the remarks made by Sir Charles with reference to a railway were a weak point in the argument, and he enlarged upon it at some length in an attempt to show that the leader of the Opposition had repudiated the Senate's action of the preceding session in rejecting the Mackenzie-Mann scheme. As to the Alaskan boundary, the Premier pointed out, as above, that there were only three possible modes of settling such a controversy—compromise, arbitration, or war. The attempt at compromise had failed, and nobody contemplated the possibility of war. Only arbitration remained, and Sir Wilfrid's remarks on the point were of the nature of the physician's statement that "while there's life there's hope." From his general tone it was evident that he did not expect to see in the near future any agreement reached between Great Britain and the United States. There was a distinct note of discouragement in his appeal to the people of Canada to be patient for a few months longer. While discouraging the proposal to exclude American miners from the Yukon country, he did not say that it would be impossible for circumstances to arise under which such a policy might be contemplated. He confined himself to a contention that such action would almost certainly lead to retaliation, to be followed very probably by non-intercourse. On July 30 was published an elaborate defense of the Canadian position by the Hon. David Mills, Minister of Justice, and from it the following is quoted:

"The United States obtained a cession of this

territory from Russia at a time when the Alabama claims were unsettled, and the long strip of territory extending from Mount St. Elias along the coast of the southeast of Prince of Wales island ought undoubtedly to be a Canadian possession. If a similar strip of territory lay between the mainland of the United States and the sea, I am quite sure its acquisition by us would be regarded as a menace to that country. But it is too late to consider how far this is injurious to this country. Under the treaty of 1825 the line drawn between the recognized territory of Russia and Great Britain was begun at the southeast of Prince of Wales island, and from that point was to ascend north along the channel called Portland channel. This could hardly be the channel called Portland channel in modern maps, because Portland channel of this day lies due east from the southern extremity of Prince of Wales island, a distance of 130 miles. The line was to ascend the channel to a point on the coast on the fifty-sixth degree of north latitude. Now what is known as Portland channel falls short of that point. The line was also to extend north in such a way as to leave Prince of Wales island to Russia. If the boundary started from the south extremity of Prince of Wales island and ran due east, it would have left the whole of the island to Russia; but if drawn north from the south extremity, it would have cut off a small portion of the southeast end of the island. So the treaty would indicate a line drawn up that channel which is east of Prince of Wales island to the fifty-sixth degree of north latitude, a point which could not be reached by what is known as Portland channel. So you see the initial point of the boundary is in controversy. The boundary when it reached the fifty-sixth degree was to follow the summit of the mountains, which extend in a line parallel to the coast from the fifty-sixth degree to the intersection with the one hundred and forty-first parallel; but when the mountains prove to be more than 10 marine leagues from the coast, the limit between the British possessions and the coast was to be a line parallel to the coast, but which should never exceed a distance of 10 marine leagues. It is clear that the makers of the treaty assumed that there was a mountain range which for the most part was within 10 leagues of the coast. The treaty also provides that neither contracting party shall form settlements within the territory of the other. The United States received all the right of Russia, and no more. But the United States authorities seem to think that not only have they the right to form settlements on our side, but also that when they do so the territory ought to be considered as theirs, and under no reference to arbitration should the sovereignty over our territory thus encroached on be open to question. I return again to Lynn Canal. Bear in mind what the treaty says about the line, which should follow the coast, being within 10 leagues of it. If a line were drawn around the head of Lynn inlet, as the United States contends it should be, the point where it passed that inlet would be at least 20 leagues from the coast. There is a well-defined coast line from the one hundred and forty-first meridian to Cape Spencer, on the fifty-seventh degree of north latitude, and by the terms of the treaty the boundary could not be more than 10 leagues from the coast. It must, in fact, be much nearer, because the range in this latitude sets in near the coast. The United States refuse to arbitrate unless we abandon our claim to the Lynn Canal. Why should we abandon it? The

British commissioners offered to compromise. The United States rejected the offer, because it recognized our claim to Pyramid harbor and a strip of territory leading therefrom to what is indisputably our territory in the Yukon. Under this compromise the United States would have held both Dyea and Skaguay, which, we think, are in Canadian territory. Let me, in conclusion, recall history for the benefit of the American people. When the disputed boundary between Maine and New Brunswick was being discussed by the two governments we claimed territory south of the St. John's river, known as the Madawaska settlements, because it was a settlement of French Canadians, who had for a long series of years been under British protection. Did the United States consent to concede it for that reason, which is the same contention they are making about Dyea and Skaguay? Not at all. It claimed that as it was on territory which, in its opinion, was part of Maine, no matter how long it had been under British protection, it ought to be yielded up. Can any American statesman give any reason for the retention of Madawaska which would not at the present time apply to Dyea and Skaguay if found by a competent tribunal to be on Canadian territory?"

Sir Wilfrid Laurier visited Chicago on Oct. 9, and in speeches delivered there dealt also at length with this issue. Eventually, the text of a *modus vivendi* as finally agreed upon and announced on Oct. 21 was as follows:

"It is hereby agreed between the governments of the United States and Great Britain that the boundary line between Canada and the Territory of Alaska, in the region about the head of Lynn Canal, shall be provisionally fixed, without prejudice to the claims of either party in the permanent adjustment of the international boundary, as follows: In the region of the Dalton trail, a line beginning at the peak west of Porcupine creek, marked on map No. 10 of the United States Commission, Dec. 31, 1895, and on sheet No. 18 of the British Commission, Dec. 31, 1895, with the number 6500, thence running to the Klehini (or Klahela) river, in the direction of the peak north of that river marked 5020 on the aforesaid British map; thence following the high or right bank of the said Klehini river to the junction thereof with the Chilkat river, a mile and a half, more or less, north of Klukwan; provided, that persons proceeding to or from Porcupine creek shall be freely permitted to follow the trail between the said creek and the said junction of the rivers into and across the territory in the Canadian side of the temporary line wherever the trail crosses to such side, and, subject to such reasonable regulations for the protection of the revenue as the Canadian Government may prescribe, to carry with them over such part or parts of the trail between the said points as may lie on the Canadian side of the temporary line such goods and articles; and from said junction to the summit of the peak east of the Chilkat river marked on the aforesaid map No. 10 of the United States Commission with the number 5410, and on map No. 17 of the aforesaid British Commission with the number 5490. On the Dyea and Skaguay trails, the summits of the Chilkoot and White passes. It is understood, as formally set forth in communications of the Department of State of the United States, that the citizens who are subjects of either power found by this arrangement within the temporary jurisdiction of the other shall suffer no diminution of the rights and privileges which they now enjoy. The Government of the United States will at once ap-

point an officer or officers to meet an officer or officers to be named by the Government of her Britannic Majesty to mark the temporary line agreed upon by the erection of posts, stakes, or other appropriate temporary mark."

Trade and Commerce.—The external trade of Canada went up by leaps and bounds during the year. In 1898 it was \$288,257,521; in 1899 it was \$306,104,708. The imports rose from \$130,698,006 to \$152,021,058, while the exports decreased from \$159,524,953 to \$154,083,650. To Great Britain the exports for the year ending June 30, 1898, were \$104,998,818; to the United States, \$45,705,336; to France, \$1,025,262; to Germany, \$1,837,448; to Newfoundland, \$2,167,860; to the West Indies, \$2,749,080; to South America, \$1,060,420; to China and Japan, \$511,919; to other countries, \$1,630,711. During the same year the imports from Great Britain were \$32,500,917; United States, \$78,705,590; France, \$3,975,351; Germany, \$5,584,014; West Indies, \$1,080,266; South America, \$1,425,653; China and Japan, \$2,317,971.

Railways.—The annual report of the Department of Railways and Canals was presented to Parliament on March 23, 1899, by the Hon. A. G. Blair. When Canadian railways are mentioned the names of the three great trunk lines—the Canadian Pacific, Grand Trunk, and the Intercolonial—suggest themselves; but a reference to the official figures at this time shows that there were 146 railways in actual operation in Canada. Some of these are amalgamated or leased; but after allowing for them, and excluding the Government railways, there are 84 controlling companies in active existence. With all these separate interests it might be expected that the people of Canada would enjoy the boon of competitive rates, but the truth of the statement that competing railways do not compete has been learned to the sorrow and financial loss of many. The completed mileage is 16,870 miles, an increase of 183 miles during the year 1898. This total does not include 2,248 miles of sidings. The magnitude of Canadian railway interests is indicated by the following figures: The paid-up capital amounted to \$941,297,037, an increase of \$19,439,805. The gross earnings amounted to \$59,715,105, an increase of \$7,361,829; and the working expenses aggregated \$39,137,549, an increase of \$3,968,884 as compared with those of the previous year, leaving the net earnings \$20,577,556, or an increase of \$3,392,945. The number of passengers carried was 18,444,049, an increase of 2,272,711; and the freight traffic amounted to 28,785,903 tons, an increase of 3,485,572 tons. The total number of miles run by trains was 50,658,283, an increase of 4,977,432. The accident returns show 5 passengers killed.

The Government expenditure on railways prior to and since the date of confederation (1867) amounted on capital account to \$123,551,091 (including a payment of \$25,000,000 to the Canadian Pacific Railway Company), and for railway subsidies charged against the consolidated fund the further sum of \$17,619,222.11, making a total expenditure of \$140,834,731.29. In addition there has been an expenditure since confederation for working expenses of \$73,029,631.74, covering the maintenance and operation of the Government roads, or a grand total of \$213,863,363.03, all of which, with the exception of \$13,881,460.65, has been expended on railways during the past thirty-one years. The revenue derived from the Government roads during the same period amounted to \$64,510,650.18.

The Canadian Pacific Railway had under traffic during the year 6,334 miles of road. Its gross

earnings were \$25,470,796.18 (against 6,314 miles of railway and earnings of \$21,242,638.75 the previous year). The total expenditure for working expenses was \$14,684,790.65, making the net earnings \$10,786,005.53, an increase of \$2,120,167.20 over the net earnings of the previous year. The company carried 3,327,368 passengers and 5,493,030 tons of freight. The gross earnings of all the Government roads—the Intercolonial, the Windsor branch, and the Prince Edward Island Railway—for the same fiscal year amounted to \$3,313,847.10, and, compared with those of the preceding year, showed an increase of \$253,772.72. The gross working expenses amounted to \$3,577,248.88, an increase of \$399,979.27. The net loss on the operations of the year was \$263,401.78. These features included the sum of \$70,000 rent paid for the extension of the Intercolonial into Montreal, under an agreement which became effective in March.

On March 1, 1898, the operations of the Intercolonial were extended to Montreal by means of leases obtained from the Grand Trunk and Drummond County Railway Companies, making an addition of 169.81 miles to the operation of the Government line, its length being 1,314 miles instead of 1,145. During the fiscal year there was an addition of \$252,756.80 to the capital account expenditure, making the total expenditure chargeable to capital on the whole road up to June 30, 1898, \$55,668,913. The additions made during the year included \$56,651 for increased accommodation at Halifax, \$93,943 for increased accommodation at Moncton, \$19,820 for the extension to deep water at North Sydney, and \$65,510.92 on rolling stock. The gross earnings of the year amounted to \$3,117,669.85, an increase of \$251,841; and the working expenses, exclusive of \$70,000 rent paid for the extension to Montreal, to \$3,259,648, an increase of \$331,679.84, making the excess of expenditure \$139,978. There was a profit of \$19,045 in the operation of the Windsor branch, and a loss of \$72,408 upon the Prince Edward Island Railway. Comparing the earnings with those of the previous year, the passenger traffic produced \$1,053,864, an increase of \$74,849; the freight traffic amounted to \$1,857,740, an increase of \$170,689; and the carriage of mails and express freight produced \$206,065, an increase of \$6,093. The earnings per mile were \$2,594.53, an increase of \$91.45.

The total projected length of the Crow's Nest Railway in British Columbia is 344 miles; from Lethbridge to Knoknoack Station, Kootenay lake, 290 miles; and from Knoknoack Station to Nelson, 54 miles. The work of construction has so far been confined to the section between Lethbridge and Knoknoack Station, 290 miles, over which the track laying was completed on Oct. 8, and the line over this section is in safe condition for public traffic. A train transfer landing has been constructed on Kootenay lake at Knoknoack, so that cars with their loads can be transferred without transshipment from that point to Nelson, which will greatly assist mining operations through the Kootenay district. The amount of subsidy paid up to Nov. 1, 1898, was \$2,162,190. Surveys have been made of the remainder of the line subsidized—viz., from the south end of the Kootenay lake to Nelson—but the final plans of location have not yet been filed in the department, as a revision of the location is in contemplation, with a view of reducing the severity of the curves in some instances.

A most important railway event of the year was the retirement of Sir W. C. Van Horne on June 12 from the presidency of the Canadian

Pacific Railroad, his election as chairman of the board, and the appointment of Mr. T. G. Shaughnessy as his successor.

Canals.—The expenditure charged to capital on the original construction and the enlargement of the several canals of the Dominion up to June 30, 1898, was \$72,504,401. A further sum of \$15,067,096 was expended on the repairs, maintenance, and operation of these works, making a total of \$87,571,498. The total revenue derived, including tolls and rentals of lands and water powers, amounted to \$11,710,240. The expenditure for the fiscal year ending June 30, 1898, was as follows: On construction and enlargement, \$3,207,249; and a further sum of \$624,755 for repairs, renewals, and operation, making a total for the year of \$3,832,005. The net revenue for the year was \$407,662, an increase compared with the net revenue of the previous year of \$22,882. The net canal tolls amounted to \$344,057, an increase of \$22,429; and the rents received to \$44,050, a decrease of \$549. The total expenditure on canal staff and maintenance, repairs, and renewals amounted for the year to \$624,755, a decrease of \$8,520, and the total net receipts amounting, as above, to \$407,662. The amount of expenditure in excess of receipts was \$217,093, compared with an excess expenditure the previous year of \$248,495. The following features of the principal canal traffic during the season of navigation of 1897 will be of interest: On the Welland Canal 1,274,292 tons of freight were moved, a decrease of 5,695 tons; 1,050,093 tons passed eastward and 224,199 westward; 1,244,750 tons were through freight, of which 1,026,458 tons passed eastward. Of this through freight, Canadian vessels carried 345,977 tons, an increase of 4,847 tons; and United States vessels 898,773 tons, a decrease of 3,693 tons. The quantity of grain passed down the St. Lawrence canals to Montreal was 560,254 tons, an increase of 99,205 tons compared with the previous year. The further quantity of 43,023 tons of grain passed down the St. Lawrence canals only to Montreal, making the total 603,277 tons. Seven cargoes of grain, aggregating 2,324 tons, were taken down direct to Montreal through the Welland and St. Lawrence canals.

On the Sault Ste. Marie Canal the total movement of freight was 4,947,063 tons, an increase of 369,660 tons, carried in 4,268 vessels, the number of lockages being 2,604. Of wheat, 17,924,802 bushels, and of other grain 3,253,405 bushels, were carried; 1,093,456 barrels of flour, 3,572,854 tons of iron ore, and 7,799,156 feet, board measure, of lumber. All these items show a considerable decrease. The total traffic at the point accommodated by the two canals—the American and Canadian—amounted to 18,986,689 tons, an increase of 1,730,266 tons, carried in 17,080 vessels, a decrease of 1,497. The total quantity of wheat carried was 55,931,779 bushels, a decrease of 7,532,097; and of other grain 24,968,136, a decrease of 2,747,129. Of lumber the total was 802,240,156 feet, board measure, an increase of 113,386,356. As having an interesting bearing on the question of canal *versus* railway transport of grain from the West, it may be noted that, whereas grain and peas passed down to Montreal through the St. Lawrence canals to the extent of 560,254 tons, an increase of 64,386 tons over the previous year, the quantity carried to Montreal by the Canadian Pacific and Grand Trunk Railways amounted to 228,586 tons, an increase of 74,869. The quantity of grain carried to tide water on the New York State canals was 569,362 tons, a decrease of 183,677 tons, while

the quantity carried by the railways of the State to tide water amounted to 4,132,740 tons, an increase of 267,980 tons.

Mr. Collingwood Schreiber, chief engineer of railways and canals, reported a marked improvement in the manner in which the St. Lawrence Canal Deepening Works are being carried on. The necessity for fulfilling the wishes of the Government and the general expectation that the canals should be opened for a 14-foot navigation next spring has been strenuously urged upon the contractors from time to time, and they have responded by the increase of their plant and the extension of their organizations—as required of them—putting forward every effort to place their respective sections in a condition for operation by the desired date. Based on the contract prices, the estimated cost of the thirteen sections of the Soulanges Canal, including land purchases and damages, is \$5,250,000. The total payment to Nov. 1, 1898, including October estimates, is \$4,251,158. This leaves a balance of \$998,841 still to be earned by the contractors. There has been expended on the enlargement of the Lachine Canal, now almost completed, \$8,112,832. The approximate value of the work under construction is \$576,000, of which \$555,939 has been paid. The works of construction and enlargement of the Cornwall Canal, estimated to cost \$4,710,000, are practically completed, and all that is required is some cleaning up. The amount expended on these works, including Sheek's island dam, to Nov. 1 is \$4,593,939. Mr. Schreiber says that if the contractors continue to push forward their operations as they have done recently the Farran's Point enlargement work will be ready for navigation in the spring of 1900. The estimated cost is \$720,000, and \$420,208 of this has been expended. The Rapide du Plat enlargement has been completed. The work cost \$1,833,400. It is estimated that the Galops Canal work will cost \$4,030,000. So far the expenditure has reached \$2,729,565.

The Indians.—The annual report of the Indian Department for 1898 was made public on March 17. The Indian population throughout the Dominion, as shown by statistics, which are closely approximate and as accurate as the circumstances of the case admit of, reached an aggregate of 100,093 souls in 1897-'98, against 99,364 for the preceding year. The area of land under cultivation by Indians during the year aggregated 111,880 acres. In considering the amount of crops secured relatively to the acreage farmed, a distinction must be made between the area described as under cultivation, which includes fallow lands, new breaking, and "made" pasturage, and the area actually seeded down, which in the spring of 1897 was 40,368 acres. The crop of cereals, vegetables, and roots harvested in the autumn of that year amounted to 1,120,900 bushels, and of hay and other fodder 76,458 tons were secured, the increase over the preceding year being 101,500 bushels and 2,164 tons respectively. The receipts of the Indians from various sources aggregated \$2,633,395. This amount exceeded by \$167,793.30 that of the year before, which was \$2,465,601. In Ontario the earnings of Indians from wages and general industries surpassed those of the preceding year by \$85,757. In Quebec the decrease in agricultural earnings extended to general industries; but, as many of the Indians of this province have depended on the United States for a market for the baskets and fancy wares manufactured by them, a considerable falling off in revenue from this source has necessarily resulted from the

withdrawal by the American Government of the privilege so long accorded them of passing their manufactures and exchanges through the customs without exaction of duty. These deficits were more than counterbalanced by the renewed opportunity afforded a good many for earning money in consequence of a greatly revived demand for moccasins and snowshoes to supply the influx of gold seekers into the Klondike region. In Manitoba many Indians depend almost entirely upon fishing and hunting, and reference to the table of earnings will show a decrease from these sources in that province amounting to \$39,519.05. In the Northwest Territories there has been an increase from all sources, aggregating \$49,357.

During the year 273 schools (including day, boarding, and industrial) were in operation. The total enrollment was 9,886; the average attendance 5,533, or 55 per cent. of the enrollment. The enrollment during the preceding year was 9,628, and the average attendance 5,357, so that there has been something gained in both directions. On June 30 the balance to the credit of the Indian fund was \$12,203. The deposits, upon which interest is allowed at the rate of 3 per cent., amounted during the year to \$4,452, and the withdrawals to \$4,088. During the year 1,416,845 acres of surrendered surveyed Indian lands were sold, and realized the sum of \$27,318, as against \$12,520 obtained from 1,445,110 acres disposed of the year before. The much higher aggregate value thus obtained is principally attributable to the fact that a large proportion of the lands sold in 1897-'98 were in the Passapasschase reserve, near Edmonton, and brought good prices. Collections during the year amounted to \$105,382, and the capital of the Indian trust fund stood at \$3,725,746 on June 30. Disbursements in the course of the year aggregated \$267,324. Expenditure from the consolidated fund amounted to \$952,590.

The Post Office.—On March 20 the report of the Postmaster-General for the year 1897-'98 was made public. The workings of the department during the year were marked by several changes. The deficit, which for the fiscal year ending June 30, 1896, amounted to \$781,152, was reduced to \$47,602 at the close of the fiscal year 1897-'98, a result rendering possible the reduction of the domestic letter rate from three to two cents an ounce, and the rate between Canada and the mother country and a large number of Great Britain's colonial possessions from five to two cents a half ounce. The deficit, which for the fiscal year 1895-'96 amounted to \$781,152.19, was in the following year reduced to \$586,539.92; and in the fiscal year 1897-'98 was further reduced to the sum of \$47,602.30, being a reduction of \$733,549.89 in the two years following July 1, 1896.

In the past year 1,064 mail services have been let by public tender for sums aggregating \$139,923. The previous yearly cost of these same services was \$167,647. The result of these changes was an annual saving of \$27,721, or for the four years that the contracts run, \$110,886. In several cases mail services have been transferred from stage to railway, the net result being that the mileage of the combined railway and stage mail services for the fiscal year 1897-'98 exceeds that for 1895-'96 by 938,283 miles.

At the close of the fiscal year 1897-'98 there had been a net increase of 179 in the number of post offices compared with the number in operation on June 30, 1896. In the year the number of money-order offices was increased from 1,349

to 1,739, and the rate of commission on money orders was reduced. These increased facilities, accompanied by cheaper rates, have resulted in an increase of 2,648 in the number of money orders issued during the year, and an increase of \$1,531,249 in the amount of money-order business of the department, compared with that of the previous fiscal year. The estimated number of letters sent through the post office in the year exceeds that of the previous year by 11,145,000, the total number in 1898 being 134,975,000. Ten years ago the number of letters sent through the mails in Canada was 80,200,000. In addition to letters handled last year, there were 28,153,000 post cards, 3,534,500 registered letters, 5,372,000 packages of printers' copy, photographs, etc., 1,813,000 packets of fifth-class matter, 316,000 parcels by parcel post, and 33,000 packets for the United Kingdom and other countries. The gross revenue of the department was \$4,636,649, and the net revenue was \$3,527,829, an increase over the revenue of the previous year of \$324,871, equal to about 1.14 per cent. There was paid out by check from the parliamentary appropriation \$3,575,411. During 1898 money orders to the value of \$14,518,000 were issued, of which \$12,082,000 were payable in Canada. The aggregate balance at the credit of the depositors in the Post-office Savings Bank at the close of the fiscal year was \$34,480,000, an increase of \$2,100,000 over the previous year. The average amount at the credit of each individual was \$242.47, against \$238.55 in 1897. Postage stamps to the value of \$4,240,000 were issued to postmasters, an increase over the previous year of \$8,042. The revenue from sales of stamps during 1898 exceeded that of the previous year by \$337,000.

Failures and Fire Insurance.—The business failures in Canada in 1898 were 1,300, with assets of \$7,692,094 and liabilities of \$9,821,323, a large decrease from all preceding years since 1894 in numbers and values.

It may be said that 1898 was an unsatisfactory year for the fire insurance companies doing business in Canada. According to figures compiled by the Insurance and Financial Chronicle of Montreal, the average loss ratio was, in round numbers, 74 per cent., which, when the expense ratio of 30 per cent. is added, makes a total of 104, or about 10 per cent. in excess of 1897. The premiums received by all companies were \$54,759 more in 1898 than in 1897, but losses were \$713,522 greater. British companies suffered the largest percentage of losses, while Canadian companies suffered the least, which were actually \$20,217 less in 1898 than in the previous year.

Marine and Fisheries.—The report of the Department of Marine and Fisheries for 1898 shows that the total number of vessels on the register book of the Dominion at the close of that year, including every description of sailing vessels, steamers, and barges, was 6,643, measuring 693,782 tons register, a decrease of 41 vessels (37,972 tons register) compared with 1897. Placing the average value at \$30 a ton, the value of the registered tonnage of Canada at the end of 1898 was \$20,813,400. The number of vessels built in the Dominion during the twelve months was 278, measuring 24,522 tons. Estimating the value of the new shipping at \$45 a ton, gives a total value of \$1,103,490 for new vessels.

The total expenditure on the different fishery services of Canada was \$442,499 in 1898. This amount comprised the fisheries proper, \$90,332; fish culture, \$28,002; fisheries protection, \$106,316; bounties, \$157,504; and miscellaneous, \$59,627. The amount of revenue from fishery licenses,

etc., was \$113,603, this sum also including the *modus vivendi* licenses granted to the United States fishing vessels, on account of which \$6,923 was paid. Of the amount which the deep-sea fishermen in 1897 received in bounties, \$60,939 was divided among the owners of 790 vessels and their crews, and \$96,565 was distributed to 23,012 boat fishermen, using 13,939 boats. The claims for bounty numbered 14,847, of which 118 were refused. The rate of payment was: For vessels, \$1 per ton, and \$6 each to the crew; to boat owners \$1, and \$3.50 per fisherman. Since the inception of the bounty system in 1882 more than \$2,500,000 have been paid to Canadian fishermen to encourage them in the development of the sea fisheries. Of this sum Nova Scotia received more than half, \$1,606,230; Quebec, \$494,396; New Brunswick, \$250,352; and Prince Edward island, \$170,921. The number of men engaged in the Canadian fishing industry is 7,895, employing a capital aggregating \$9,370,794. Nearly 1,200 schooners and tugs, manned by 8,879 sailors, were employed, in addition to the 70,000 fishermen, using 37,693 boats and more than 5,500,000 fathoms of nets. The lobster plant is valued at \$1,349,000, representing 738 canneries, with 15,165 employees. The total value of the fisheries is computed at \$22,783,540, being an increase of \$2,500,000 over the previous year.

Agriculture.—The exportation of Canadian butter showed a slight falling off in 1898 compared with 1897, both in value and in quantity, the figures being 11,253,787 pounds, valued at \$2,046,686, as compared with 11,453,351 pounds, valued at \$2,889,173, in 1897. On the other hand, there was a decided increase in the exports of cheese, 196,703,323 pounds, valued at \$17,572,763, being sent out of the country. In 1897 the figures were 164,220,699 pounds, valued at \$14,676,239. As an indication of the growth of the trade, it may be stated that in 1890 94,260,187 pounds of cheese, valued at \$9,372,212, were exported. Again the number of Canadian cattle exported to the United States shows an increase. The numbers exported during the three previous years were as follow: In 1895, 882; in 1896, 1,646; in 1897, 57,857; in 1898, 88,605. These figures indicate that the removal of the regulations which required a quarantine detention of ninety days on cattle entering the United States from Canada has enabled the farmers and stock raisers of the Dominion to find a large and increasing market in the United States for their live stock. The following comparative statement of the value of the exports of some of the farm products of Canada during the years 1896 and 1898 shows the growth in that short period:

EXPORTS.	1896.	1898.
Wheat	\$5,771,521	\$17,813,916
Flour	718,438	5,425,760
Oats	273,861	3,041,578
Oatmeal	864,655	554,757
Peas	1,299,491	1,813,792
Cattle	7,082,542	8,723,292
Cheese	13,956,571	17,572,763
Butter	1,052,089	2,046,686
Pork, bacon, hams	4,446,884	8,092,890
Eggs	807,086	1,255,304

Crime and Criminals.—In the period 1887-'97 there were 407,417 convictions under the two heads of indictable offenses and summary convictions. This is a yearly average of 37,037. The year 1897 supplied 37,978 convictions. During the period 1887-'97 convictions for crime against the person increased from 749 in 1887 to 1,205 in 1897, an increase of 60 per cent. In the same

period convictions for crimes against property increased from 2,522 to 4,516, an increase of 79 per cent. The greatest increase in this subdivision is in offenses against females, which increased from 60 to 163, or 172 per cent. Analysis of this group shows that the chief increase is under the head of assaults on women, wife beating, etc. During 1887-'97 the convictions for crimes against property show generally large increases. Burglary increased from 265 to 549, an increase of 108 per cent.; larceny increased from 1,993 to 3,558, or 178.8 per cent. Forgery increased from 264 to 409, or 55 per cent.

Banks.—The 38 banks of Canada, with their 641 branches, made large profits during the year. In the statement of June 30, 1899, their liabilities included the following items: Capital paid up, \$63,674,085; reserve fund, \$28,956,908; amount in circulation, \$39,097,708; public deposits on demand, \$91,852,000; public deposits on notice, \$106,549,940; balance due to banks in United Kingdom, \$6,536,052. The chief assets were as follow: Specie, \$9,240,810; Dominion notes, \$16,959,927; deposits with Dominion Government, \$2,016,573; notes, etc., of other banks, \$11,015,876; deposits with other banks on demand, \$3,900,522; balance due from Canadian banks, \$21,674,085; balance due from United Kingdom banks, \$10,170,065; Dominion Government debentures, \$4,898,019; municipal and other securities, \$16,232,301; railway securities, \$14,875,470; call loans, \$30,659,460; current loans, \$250,974,389; loans to provincial governments, \$3,150,714.

Mines.—Of the gold output of Canada the main feature of 1898 was the very large increase in that of the Yukon. This accounted for \$7,500,000 of the enlargement, which is three times as great an estimated output as that of 1897. With the exception of the gold washings of Saskatchewan river in the Northwest Territories, there were increases in all the other districts of the Dominion. There were increased outputs of coal in all the districts. In copper the largest increase was in Ontario, which amounted to more than 50 per cent. of the previous year's output. British Columbia showed also a considerable enlargement, while in Quebec a falling off was apparent. A rise in the price of the metal made the proportional increase in value greater than that of quantity. In nickel the increase in the quantity was greater than that in the value, owing to a fall in the average price of the metal. A falling away of the production of both lead and silver was in the former case partly offset by the rise in the average price, while in the latter case a lower price for the year aggravated the proportional decrease in the value compared with the quantity. The following is a summary of the total production of minerals in 1898: Copper (fine in ore, etc.), \$2,159,556; gold, Yukon district, \$10,000,000; all other, \$3,700,000; iron ore, \$152,510; lead (fine in ore, etc.), \$1,206,399; nickel (fine in ore, etc.), \$2,583,298; nonmetallic asbestos and asbestic, \$486,227; coal, \$8,227,958; coke, \$219,200; gypsum, \$230,440; mica, \$177,598; mineral water, \$155,000; natural gas, \$320,000; petroleum, \$981,106; pyrites, \$128,872; salt, \$248,639; structural and clay products, \$4,602,177; all other nonmetallic, \$11,282,419. The total non-metallic was \$15,884,596; the total metallic, \$21,622,601.

Roughly speaking, \$13,000,000 worth of gold and \$8,000,000 worth of coal were produced in 1898. The previous year the figures, roughly, were \$7,000,000 of coal and \$5,500,000 of gold. A summary report of the mineral production of Canada, issued by the Geological Survey, showed

an increase of more than \$9,000,000, or nearly 32 per cent., compared with 1897. Compared with 1886, the first year for which statistics were issued, there was an increase in the value of mineral products in thirteen years of nearly 270 per cent. In this period the increase in population was about 14 per cent., so that the proportional importance of the mining industry of the country is very much greater than it was at the beginning of the period dealt with. Thus the per capita value of the mineral production of the country has increased from about \$2.20 to \$7.20.

Immigration.—The number of immigrants that arrived in Canada in 1898 was 22,781. Of these, 9,119 were from the United States, 9,475 from England, 733 Irish, 1,400 Scotch, 563 German, 724 Scandinavian, 545 French and Belgian, 5,509 Galicians, and 3,832 other nationalities. There was also a marked falling off in juvenile immigration under the auspices of philanthropic persons and societies. The statistics in this latter class of immigration since 1893 show a total of 11,184. The Department of the Interior made a vigorous effort to fill a long-felt want by sending a special agent to Scotland to secure domestic servants, and the result was that 59 girls came to Canada, all but 3 of whom went to Winnipeg and points west. The chief difficulty with regard to inducing female domestics to come to Canada seemed to be their unwillingness to leave the old country unless employment was secured for them before their departure. In regard to immigration, the Canadian High Commissioner, Lord Strathcona, suggested that the work in England would be greatly assisted by more help from Canada. His idea was that committees for this work should be formed in all the electoral districts of Canada to assist the Government agents in looking after new arrivals, and to persuade such arrivals to keep up communication with their friends in the United Kingdom.

Miscellaneous.—In October, 1899, a permanent papal delegate arrived in Canada in the person of Mgr. Falconio, as a result of questions arising in which Roman Catholic interests are concerned in a country where 40 per cent. of the population are of that faith. The Hon. Peter Mitchell died during the same month, and in him passed away a prominent old-time figure in Canadian politics. The death of Grant Allen removed a famous Canadian author, and in the person of Dr. William Kingsford the most elaborate of Canadian historians passed away, while in Sir William Dawson the country lost its greatest scientist and one of its chief educators.

CAPE COLONY AND SOUTH AFRICA.

The Cape of Good Hope, first settled by the Dutch and Huguenots in the seventeenth century, was taken from the Netherlands by the British in 1806. Many descendants of the original settlers who were unwilling to accept British rule migrated in 1835 beyond the Great Fish river, which was then the eastern boundary, and founded an independent commonwealth in Natal, on the east coast; others crossed the Orange river in 1836 and succeeding years and established the settlements that were declared independent and organized into the Orange River Free State in 1854. In the meantime Great Britain annexed the Natal settlements, whereupon a majority of the Boer colonists abandoned their farms and, trekking far into the wilderness, established in 1849, on the farther side of the Vaal river, a new commonwealth, called the Transvaal Republic, whose independence was recognized by Great Britain in 1852. Natal was separated from Cape Colony and erected into a colony in

1856. British Kaffraria was incorporated in Cape Colony in 1865, and Tembuland, East Griqualand, and the Transkei territories in later years; also the harbor of Walfisch Bay, on the southwest coast. Griqualand West, originally a part of the Orange River Free State, was annexed by Great Britain in consequence of the discovery of diamond mines at Kimberley, and it also now forms an integral part of Cape Colony. Basutoland was annexed to Cape Colony in 1871, but after the Basuto war it was detached and made a direct dependency of the Crown in 1884. In the same year Germany declared a protectorate on the southwest coast of Africa over Damara-land, extending from Cape Frio, the southernmost point of Portuguese West Africa, to Walfisch Bay, and over Namaqualand, extending from Walfisch Bay southward to the Orange river, which forms the northern boundary of Cape Colony. British Bechuanaland was annexed by Great Britain at the same time after the forcible expulsion of the Boers from the Transvaal, who had proclaimed the independent republic of Stellaland, with its capital at Vryburg. In 1885 a British protectorate was proclaimed over independent Bechuanaland, the country still ruled by Chief Khama. In the east British control was established over Zululand after the Zulu war of 1879. A portion next to the Natal border was set apart as a reserve for loyal Zulus who had aided the British in the war; the rest was restored to Cetewayo in 1883, but in 1887 about two thirds of this territory, together with the Zulu Reserve, was formally declared British territory and placed under the administration of the Governor of Natal, and in 1897 the whole of Zululand and British Amatongaland were incorporated in Natal.

The Transvaal Republic was annexed by Great Britain in 1877, and a British administrator was appointed; but in 1880 the Boers took up arms, expelled the British officials, and, after successfully resisting the British troops that were sent to conquer them, obtained by the treaty of 1881 the restoration of self-government in internal affairs, while the control of external relations was reserved to the British Government under the name of suzerainty. In 1884 a new convention was signed at London, by which Great Britain recognized the new style of South African Republic adopted by the Transvaal, and abandoned the assertion of suzerainty, or at least expunged the word from the treaty, though requiring every treaty made by the Government of the South African Republic with foreign powers or with independent native chiefs to the north or east of the Transvaal to be submitted to the British Government. A new republic founded by Boer trekkers in Zululand was subsequently incorporated as the district of Vrijheid in the South African Republic with the assent of Great Britain. By the convention of 1890 a part of Swaziland also was added to the South African Republic. All the territories north of the Transvaal, including Matabeleland, ruled by King Lobengula, with the neighboring countries of the Mashonas, Makalakas, and other tribes that paid tribute to him, and comprising all the region north of 22° of south latitude, east of 20° of east longitude, and west of the Portuguese district of Sofala were declared to be within the British sphere of influence. In 1889 a royal charter was granted to the British South Africa Company, which was authorized to organize an administration for these territories. The company was empowered to take also under its administration, subject to the approval of the Im-

perial Government, the regions north of the Bechuanaland protectorate and the Kalihari region west of it as far as the German boundary.

Portugal originally claimed by virtue of early conquests and continuous occupation, more or less effective, both banks of the Zambesi river from its mouth up to its source and the country still farther west, reaching to the Portuguese possessions on the west coast, a continuous zone extending across the whole of Africa from Mozambique to Angola. Yielding under threat of war to superior force, the Portuguese Government in 1891 agreed to recognize as a British protectorate the countries south of the Zambesi, including the Manica plateau, and also the Barotse kingdom and all other regions north of the Zambesi up to the border of the Congo State, including the Shire highlands and the Lake Nyassa region, where British missionaries were active. In 1891 the British Government extended the field of operations of the British South Africa Company so as to embrace the territories north of the Zambesi, known as Northern Zambesia, or British Central Africa, excluding only the Nyassaland districts, which had been declared in 1889 to be within the British sphere, and were now proclaimed a British protectorate.

Pondoland was annexed to Cape Colony in 1894, and in 1895 the Crown colony of British Bechuanaland was handed over to the colonial administration.

Cape Colony.—The colony of the Cape of Good Hope has possessed responsible government since 1872. The legislative power is vested in a Legislative Council, consisting of 23 members elected for seven years, and a Legislative Assembly of 79 members elected for five years. The franchise is possessed by adult males able to register their names, addresses, and occupations, and further qualified by the occupation of house property of the value of £75 or the receipt of a salary of £50 or more per annum. The number of registered electors in 1898 was 109,888.

The Governor of the Cape of Good Hope and High-Commissioner for South Africa is Sir Alfred Milner, who succeeded Lord Rosmead in 1898. The ministry at the beginning of 1899 was composed as follows: Prime Minister and Colonial Secretary, W. P. Schreiner; Treasurer, J. X. Merriman; Attorney-General, R. Solomon; Commissioner of Public Works, J. W. Sauer; Secretary for Agriculture, A. J. Herholdt; without portfolio, Dr. De Water.

Area and Population.—The area of the colony, including Griqualand West, East Griqualand, Tembuland, the Transkei, Walfisch Bay, Pondoland, and British Bechuanaland, is 276,775 square miles, with a population of 1,766,040, of whom 382,198 are whites and 1,383,842 colored. The number of marriages in 1896 was 7,860; of births, 14,733 Europeans and 35,696 colored; deaths, 7,070 Europeans and 25,871 others. The number of arrivals by sea in 1897 was 30,203; departures, 20,531.

Finances.—The revenue for the year ending June 30, 1897, was £7,389,966 from all sources. Of the total £2,936,426 came from taxation, £4,023,772 from services, £306,046 from the colonial estate, and £123,721 from fines, stores issued, etc. The total expenditure was £8,637,854, of which £1,255,231 went for interest and sinking fund of the public debt, £1,940,570 for railroads, £375,588 for defense, £432,278 for police and jails, £166,066 for the civil establishment, and £1,785,466 under loan acts. The total expenditure for 1899 is estimated at £6,682,088.

The public debt on Jan. 1, 1898, amounted to

£27,282,405. On June 30, 1899, the loans outstanding amounted to £32,474,000, against which there was a sinking fund of £4,200,000.

Military Forces.—The British naval station of Simon's Bay is well fortified, and here a contingent of the imperial army is stationed. The British expenditure in 1897 was £275,474. The colonial military force, called the Cape Mounted Rifles, numbers 1,015 officers and men. The volunteers numbered 7,007 in 1897; the Cape police, 68 officers and 1,843 men.

Commerce and Production.—The colony in 1898 produced 1,950,831 bushels of wheat, 1,447,353 of oats, 907,920 of barley, 2,060,742 of mealies, 1,140,615 of Kaffir corn, 3,934,277 pounds of tobacco, 4,861,056 gallons of wine, 1,387,302 gallons of brandy, and 2,577,909 pounds of raisins. There were 1,201,522 cattle, 382,610 horses, 85,060 mules and asses, 12,616,883 sheep, 5,316,767 goats, and 267,693 ostriches in 1898. The production of wool was 39,141,445 pounds; of mohair, 8,115,370 pounds; of ostrich feathers, 294,733 pounds; of butter, 2,623,329 pounds; of cheese, 36,729 pounds.

The total value of the imports in 1897 was £17,997,789, and of the exports £21,660,210. The imports of merchandise were £16,490,739 in value; exports of colonial produce, £19,176,061. Of the merchandise imported, the value of £13,429,000 was subject to duty, and the duties collected were £2,189,580, representing an average rate of about 16 per cent. The imports include goods destined for the Boer republics and the Bechuanaland and Basutoland protectorates, and a large part of the exports are their products. The protectorates and the Orange Free State are united to Cape Colony in a customs union, which Natal also joined in September, 1898. The principal imports were textiles and apparel of the value of £4,598,682, and food and drink of the value of £3,817,828. The value of gold, the product of South African mines, exported during the financial year 1897 was £10,991,926; of diamonds, £4,454,376; of wool, £1,496,779; of Angora hair, £676,644; of ostrich feathers, £605,058; of hides and skins, £514,167; of copper ore, £300,772; of wine, £17,715; of grain and meal, £13,027. The total exports of diamonds for the thirty years that the Kimberley mines have been open have amounted to £83,311,000. For 1898 the imports were valued at £24,500,000, having risen from £5,700,000 in ten years, and the exports at £26,700,000, compared with £8,876,000 in 1888.

Navigation.—The number of vessels entered from abroad during 1897 at the ports of Cape Colony was 1,093, of 2,694,370 tons, and the number cleared was 1,089, of 2,709,795 tons. The British vessels numbered 743, of 2,350,064 tons, of those entered, and 761, of 2,390,798 tons, of those cleared. The vessels entered coastwise numbered 1,278, of 3,725,831 tons; cleared, 1,278, of 3,723,409 tons.

Railroads, Posts, and Telegraphs.—The Government railroads in 1898 had a total length of 1,901 miles, besides which there were 359 miles privately owned. The railroad running north from Kimberley to Mafeking and Buluwayo was built by a private company connected with the British South Africa Company, which built the section of 96 miles from Vryburg to Mafeking now operated by the Cape Government at the company's expense. The total capital invested in the Cape Government railroads is £19,323,155, a cost per mile of £10,105. There were 9,223,676 passengers and 1,340,414 tons of freight carried in 1897. The gross earnings were £3,070,897;

expenses, £1,898,316. The net earnings for 1898 were nearly 4.7 per cent.

The post office in 1897 forwarded 19,484,524 letters, 9,168,960 newspapers, 633,796 post cards, 633,796 books and samples, and 513,720 parcels.

The telegraph lines have a total length of 6,609 miles. The number of messages in 1897 was 2,392,503. The receipts were £148,558; expenses, £132,586.

The New Assembly.—In the elections for the Assembly under the redistribution act passed by the last Legislature the Progressist party espoused the imperial policy advocated by Cecil Rhodes and the South African League, and came thus to a direct issue with the Afrikaner Bond. The main contest was over by the end of September, 1898, when the members opposed to Mr. Rhodes numbered 40, his adherents 35, and independent members 4. After carrying a vote of want of confidence by a majority of 2 on Oct. 12, 1898, Mr. Schreiner formed a government, displacing Sir J. Gordon Sprigg. His followers were afterward increased and the strength of the Rhodes party diminished by the transfer of 3 seats on election petitions. The 16 new seats created by the redistribution act were filled by a succession of elections which took place in the early months of 1899 and were hotly contested. In Vryburg the volunteers who had taken part in the campaign against the Bechuanas in 1897 insisted on registering and voting, in the hope of securing the seats for the Progressives. The final results gave Mr. Schreiner a majority of from 8 to 13 votes in an Assembly of 95 members. The Government presented to the Parliament, which assembled on July 14, measures to restrict the immigration of undesirable aliens, to secure the purity of elections and the proper registration of voters, to prohibit the engagement of native labor for places beyond the colony by other than authorized Government agents, to improve education, to authorize railroads for the opening of new districts, and to relieve distressed agriculturists by the reduction of quit rents or the price of land. An extradition treaty with the South African Republic was concluded after long negotiations. The revenue of the colony was insufficient to meet the outlay, owing to the reduction of taxation and the customs union, and to restore the equilibrium an income tax was proposed, estimated to yield, with other new taxes, £250,000, about half the decrease caused by the customs union and remissions. Under the customs union the average duty on imports had been reduced from 20 to 15 per cent. The Cape Government agreed to collect at customs-union rates the duties on articles destined for Rhodesia, and for articles grown or manufactured within the customs union free trade with Rhodesia was secured. Although the Afrikaners had won the elections over the Progressives, the more advanced section among them predominated over the extreme Dutch Conservatives who composed the Afrikaner Bond, and therefore Mr. Schreiner was called to the premiership rather than Mr. Hofmeyer. The policy of the Ministerial party was to govern South Africa in the interest of the South Africans, not for objects of imperial expansion nor to suit the views of European capitalists. How far the idea of severing the imperial connection was from the thoughts of the Afrikaner statesmen was shown in the vote of the Parliament to give the promised contribution to the naval defense of the empire, not in the form of an ironclad, as was first proposed, but in an annual grant of £30,000. More important yet was the surrender by the

Schreiner ministry to the imperial naval authorities of the control of the port of Simon's Town under conditions which place it almost in the position of an English dockyard port for naval purposes, a concession that the Rhodes ministry refused in 1890 for fear of facilitating imperial intervention in South African affairs.

Basutoland.—The Basutos are the most industrious of the Kaffir tribes, raising mealies, wheat, and Kaffir corn for export, wool also, and herds of cattle. The area of their territory is 10,293 square miles, and the population about 250,000. The Resident Commissioner is Sir G. Y. Lagden. The imports in 1898 were valued at £100,280, and exports at £138,500. The revenue is derived from a native hut tax of 10s. and from licenses. Of 320,934 cattle in the country, perhaps 75 per cent. died of the rinderpest in 1897.

Bechuanaland Protectorate.—The protectorate embraces the lands between the Molopo and Zambesi rivers, occupied by the Bamangwato under Chief Khama, the Bakhatla under Lenchwe, the Bakwena under Sebele, the Bangwaketse under Bathoen, and the Bamaliti under Ikaneng. The area is estimated at 213,000 square miles, and the population at 200,000. The natives rear cattle and cultivate the soil. The white mounted police numbered 127 officers and men in 1897, and the native police 60. The Resident Commissioner is Major H. J. Goold Adams. The revenue in 1897 was £47,511. The expenditure was £88,448 in that year, £40,102 being required for police, £24,152 for native relief on account of the rinderpest and drought, and £4,707 for extra police and for burning the carcasses of cattle that died of the plague.

Natal.—The legislative authority is vested by the Constitution of 1893 in a Legislative Council of 11 members, nominated for ten years by the Governor, advised by his ministers, and a Legislative Assembly elected by owners of real estate worth £50, occupiers paying £10 rent, and persons having at least £96 income. All appropriations of money must be recommended by message of the Governor, whose assent, revocable within two years, is required for all other legislation.

The Governor is Sir Walter Francis Hely-Hutchinson, appointed in 1893. The ministry appointed on Oct. 4, 1897, was composed as follows: Premier and Colonial Secretary, Sir Henry Binns; Attorney-General and Minister of Education, Henry Bale; Minister of Public Works, Lieut.-Col. Albert Henry Hime; Minister of Native Affairs, J. L. Hulett; Treasurer, William Arbuckle; Minister of Agriculture, F. A. R. Johnstone. On the death of Sir Henry Binns the ministry was reconstituted, on June 9, as follows: Prime Minister and Minister of Lands and Works, Lieut.-Col. Hime; Attorney-General and Minister of Education, Henry Bale; Secretary for Native Affairs, Frederick Robert Moor; Colonial Secretary, C. J. Smythe; Treasurer, W. Arbuckle; Minister of Agriculture, William Daniel Winter.

Area and Population.—The area is estimated at 35,000 square miles, inclusive of Zululand. The population in 1898 was 829,005, of whom 61,000 are Europeans, 53,370 Indians, and 714,635 Kaffirs. Zululand, including British Amatongaland, with an area of 14,238 square miles, had a population of 1,131 whites and 196,511 natives in 1897. The capital of Natal is Durban, which had 24,595 inhabitants in 1898.

Finances.—The revenue for the year ending June 30, 1897, was £2,213,074; expenditure, £1,624,996. The receipts from railroads were

£1,285,249; from customs, £413,390; from excise, £20,216; from land sales, £44,112; from the post office, £56,822; from telegraphs, £22,924; from stamps and licenses, £31,408; from the native hut tax, £94,038. The expenditure for railroads was £560,455; for public works, £90,419; for defense, £156,021; loan expenditure, £649,587. The revenue of Zululand was £67,658; expenditure, £68,518. The public debt of Natal on June 30, 1897, amounted to £8,019,143. The revenue for 1900 was estimated at £2,099,855; ordinary expenditure, £2,073,332; expenditure from the loan fund, £1,011,225.

Defense.—The colony maintains a corps of 490 mounted police, which cost £57,766 in 1896. The volunteers number 1,391.

Commerce and Production.—Europeans have 247,160 acres under cultivation; natives, 598,790 acres. Europeans in 1892 owned 125,992 cattle, 54,795 Angora goats, 649,475 sheep, and 26,921 horses; natives had 114,829 cattle, 252,183 goats, 21,487 sheep, and 21,760 horses. The herds of cattle had greatly diminished in consequence of the cattle plague. The output of the coal mines in 1897 was 243,960 tons. This industry is becoming important, as there is a demand for coal for export, and the rich beds of iron ore that have been found in different places offer opportunities for further development. The total value of imports in 1897 was £5,983,589, which includes much merchandise destined for the Transvaal and the Orange Free State. The value of the exports was £1,621,923. The principal imports were iron and iron goods of the value of £612,864; haberdashery, £480,208; clothing, £414,269; machinery, £397,528; flour and grain, £338,277; leather manufactures, £263,708; wine, beer, and spirits, £142,904; cotton goods, £75,638; woolen goods, £74,311. The export of wool was £474,681 in value; of coal, £89,863; of hides and skins, £51,220; of Angora hair, £34,892; of gold, £18,223; of bark, £17,659; of sugar, £12,011. In 1898 the total value of imports was £5,323,216; of exports, £2,184,667. The Government expects to make large tracts of the midland country available for European settlement by a comprehensive scheme of irrigation.

Navigation.—The number of vessels arriving in 1897 was 780, of 1,246,390 tons; the number departing was 789, of 1,248,703 tons. The merchant marine of the colony consisted of 14 sailing vessels, of 699 tons, and 15 steamers, of 2,954 tons.

Railroads.—The length of railroads open for traffic in 1898 was 487 miles, all belonging to the Government. A line 307 miles in length, from Durban through Pietermaritzburg to the frontier of the South African Republic, has been extended 204 miles farther through Johannesburg to Pretoria. Branches from the main line lead north and south along the coast, and one enters the Orange Free State, terminating at Harrismith. The cost of building the railroads was £6,588,507. The receipts in 1897 were £1,051,359, and the expenses £583,088, showing a net profit of 7.20 per cent.

The Transvaal Question.—After three years of comparative quiescence which followed the Jameson raid the conflict between the British Government, supporting the demands of the Uitlanders in the Transvaal, and the Government of the South African Republic again became acute in consequence of a renewal of the agitation among the Uitlanders. The occasion of an excited state of feeling being revived in Johannesburg was the homicide of Tom Jackson Edgar, an Englishman, accused of having

fatally wounded another man in a quarrel, by a police constable named Jones, who broke into his house to arrest him on a criminal charge, and shot him because he hit one of the policemen with a stick. The previous trial and acquittal of a German named Von Veltheim, who had shot and killed Woolf Joel, a Rand capitalist, had been regarded in some quarters as an indication of the partiality of Boer courts and juries in dealing with the rights of British subjects. Von Veltheim was expelled from the Transvaal under the law passed in consequence of the Jameson raid, giving the President power to expel any alien regarded as dangerous to the peace of the country. This law was repealed at the request of the British Government, but the Raad in 1898 re-enacted its essential provisions. The Uitlanders, who followed the counsels of the South African League and desired British intervention, made this and the other acts passed in 1896 to protect the state against a recurrence of such disturbances as the Johannesburg revolution and the Jameson raid one of their chief grounds of complaint against the Transvaal Government. Von Veltheim returned to the Transvaal without permission in January, 1899, and was sentenced to four months' imprisonment, to be re-expelled on the expiration of the sentence. When the public prosecutor reduced the charge against Jones from murder to culpable homicide, and released him from custody on the recognizance of his comrades of the police force, Clement Davies Webb and Thomas Robery Dodd, the vice-president and secretary of the Transvaal section of the South African League, called a public meeting in the public square at Johannesburg on Dec. 24, 1898, and there a petition to the British Government was signed by over 4,000 British subjects. The vice-consul at Pretoria declined to forward a petition couched in such terms as this one was, and Webb and Dodd were arrested by the Transvaal authorities on the charge of having violated the public-meetings act of 1894, which forbids the holding of a meeting in a public place without authorization. The political animosity of the Afrikaners in Johannesburg and other parts of the Transvaal against the Rhodes party was aroused by the sudden revival of the demands of the Uitlanders. The editor of one of their papers called for the removal of the acting British agent at Pretoria, and was consequently arrested for malicious slander. The Uitlanders, on the arrest of Webb and Dodd, arranged for a meeting on Jan. 14, 1899, in a public building at Johannesburg to protest against this alleged fresh violation of the rights of British subjects and generally to express their grievances and sign a new petition. This meeting was permitted, since there is no law against assembling in a closed place; but when they came together Boers also rushed in, many of them said to be policemen in plain clothes and employees of the Government, and these raised such a tumult that no speeches could be heard. A hand-to-hand conflict took place between the Englishmen and the disturbers, with which the police officials who were present declined to interfere, although Englishmen present pointed out some of their antagonists and demanded that they should be arrested.

On Jan. 13 Mr. Chamberlain sent a dispatch in regard to the dynamite monopoly, which, as carried out in the Transvaal, he held to be a contravention of the article in the convention of 1884 granting equal trading rights to British subjects. A monopoly in explosives was first given to Edward Lippert, a German, in 1887, on

his undertaking to erect factories and supply the requirements of the Transvaal with dynamite manufactured in the country as far as possible from materials produced in the country, other ingredients to be imported free of duty, while on dynamite itself a heavy duty was laid. The French company to which Lippert transferred the privilege erected buildings in which cartridges were filled with dynamite imported under another name. The British Government objected to the granting of a monopoly to a private individual as a breach of the convention, and when the Cape customhouse officials in 1892 stopped consignments of so-called raw materials, and showed them to be fully manufactured dynamite, the Transvaal Government canceled the concession. In September, 1893, the Volksraad adopted regulations reserving to the Government the monopoly of the manufacture and sale of explosives, imposing an import duty of 9d. a pound on dynamite, but giving the Government the right of importation, and providing that the monopoly may be transferred to an agent, who for eight years might charge a maximum price of £5 a case, and was to pay the Government a royalty of 5s. a case of 50 pounds and 20 per cent. of the net profits. The price to the mine operators was fixed at a third less than under the former monopoly. The agent appointed was L. G. Vorstmann. The contract, which ran for fifteen years, bound the concessionaire to erect a factory within two and a half years and manufacture dynamite, using imported materials only in case they were not produced in the Transvaal, but having in the meantime the right to import all materials. Consumers received the right to import dynamite by paying a heavy duty. The real concessionaire was still Lippert, for Vorstmann was only a man of straw. Dynamite was still imported under the name of *guhr impregne*. When Nobel, the European manufacturer of dynamite, offered to build a factory in the Transvaal the Government made Lippert put down the price to £4 5s. a case. Afterward Nobel and Lippert, with the French company, formed a company together, and on May 24, 1894, a new concession was granted, under which the Government advanced £400,000 to the company for the purchase of explosives, afterward increasing the loan to £500,000, on which no interest was charged. It was provided that permits to import dynamite should not be given to outsiders unless the stock on hand fell below 10,000 cases. The new contract allowed to Lippert a royalty of 6s. a case for fifteen years and 2s. more for three years. When the time for beginning manufacture came no factory had been built. The importation of dynamite went on, contrary to the agreement. The mine owners of the Rand, who in 1893 had offered to build a factory themselves and give the Government 50 per cent. of the profits, made complaints. German manufacturers offered to supply good dynamite at 40s. a case, and thus save them an expense of £500,000 a year, whereas they had to pay 85s. for a quality that was dangerous. The Raad appointed a commission in 1897, which reported that the company had failed to keep its agreement in various particulars, and that the excessive price of the explosive was a serious burden on the industry. The outcome was that on May 1, 1898, the price of dynamite was reduced to £3 15s. a case, the Government having abandoned its royalty of 5s. a case and induced Lippert to forego 5s. of his. The dynamite factory was completed in 1896, but was only capable of supplying 80,000 cases, a fifth of the demand,

and therefore the Volksraad allowed two and a half years more in which to extend the works so as to supply the whole demand of the country. A technical commission appointed by the Government of the South African Republic came to the same conclusions as the commission of the Volksraad. The materials for the manufacture of dynamite could not be produced on a commercial scale, and the profit of 100 per cent. or more over the market price went to enrich individuals without bringing any benefit to the state. Mr. Chamberlain in his letter admitted that a monopoly in favor of the state, even if carried out by a concessionaire, would not be inconsistent with the London convention if intended in good faith to benefit the state generally, and not simply to favor the concessionaire. The Volksraad by resolution had left it discretionary with the Executive to proceed to the cancellation of the contract with the company if the latter had failed to fulfill its obligations, or to take steps to supply the mines with cheaper dynamite by allowing importations subject to the payment of ordinary duties or otherwise. The Government of the South African Republic was advised by the State Attorney that it could not legally annul the concession. Instead of attempting to do so, the Government of the South African Republic proposed to the Volksraad to extend the concession another fifteen years, subject to a further reduction of 5s. per case in the price of dynamite. Against such extension the British Government protested. F. W. Reitz, the State Secretary of the South African Republic, in replying on March 9 to the letter of Mr. Chamberlain, said that the monopoly did not deprive foreigners residing in the Transvaal of the same trading rights and obligations as burghers, which was all that the London convention secured to them. He claimed for the republic the exclusive right to fix on what conditions the manufacture of explosives should take place; refused to admit that it depends on whether the concession is intended in good faith to benefit the state generally, though if it did the republic itself must judge what is best for it, and must take not only financial considerations into account, but all the circumstances that are of interest to the country; did not admit, however, that the monopoly was not financially profitable to the state, equally with the contractor, nor that the present to the mining industry of 5s. a case made it less a state monopoly; declared that the abrogation of the contract would be a breach of established rights, and therefore prejudicial to the good name and welfare of the republic; and on these grounds considered that the British Government was not justified in protesting. Previous to the sending of this dispatch Mr. Lippert, in behalf of the Government of the South African Republic, submitted to leading representatives of the mining industry a programme for the settlement of the gravest differences between the Government on the one part and the whole Uitlander population and the mining industry on the other. He obtained, on Feb. 27, the consent of E. Birkenruth, A. Brakan, and G. Rouliot, representing the Chamber of Mines, to a conference, and President Krüger, Dr. Leyds, the State Attorney, and the State Secretary consented to open negotiations on the suggested basis. London capitalists interested in the mines gave their approval in advance to any arrangement that would produce harmony and secure administrative and financial reform. The mining representatives did not consider themselves qualified to speak for the gen-

eral body of the Uitlanders, and, since the programme was to be adopted or rejected as a whole, they declined to commit themselves until these had given an expression of opinion. The Government offered to throw open to the mining industry all its reserved mineral territory, the *bewaarplaatsen*, water rights, and machine stands at a valuation to be fixed by competent engineers, giving to surface holders the preferential right to acquire the undermining rights; also to appoint a state financier and auditor acceptable to the mining community, who should have a seat in the Executive Council and approve any new scheme of taxation; to obtain a reduction in the price of dynamite to £3 10s.; and to grant full burgher rights, excepting the right to vote for President, to Uitlanders seven years from the date of their becoming qualified to vote for the Second Raad and taking the oath of allegiance. The Government of the South African Republic asked in return for these concessions that the

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hostile press agitation should cease and the political organization having for its object the stirring up of strife and promoting of dissension between the nationalities should be discouraged and repudiated; also that the Uitlanders should support the Government in seeking the sanction of the British Government for restrictive measures designed to control the immigration of Indian coolies, Cape boys, and British subjects belonging to other colored races. The representatives of the business houses declined to accept the proposed settlement of the dynamite question except on condition that the Government should receive again its royalty of 5s. and that the concession should not be extended, but at the end of the fifteen years the factory should be turned over to the Government at a valuation not including good will or future profits. With regard

to the franchise, the Government's proposals were referred to representative Uitlanders, who reported that it would be useless to lay them before the Uitlander population in their present form, for the reasons that they gave no consideration to residence already completed; they still required the approval of the application for citizenship by two thirds of the burghers of the ward; they demanded that the applicant must forswear his former allegiance; they left him for seven years a citizen of no country, and in danger of having the promised citizenship revoked by the Volksraad before the time of probation expired; and they made no provision for additional representation of the Rand in the Volksraad. While discussion with the leaders of the mining industry was still proceeding President Krüger voluntarily announced his intention to expropriate the dynamite company, appoint a state financier, sell the *bewaarplaatsen*, or Government mining claims, to owners of adjoining mines, and introduce a bill reducing the period of residence necessary to obtain full burgher rights from fourteen to nine years. This proposal regarding the franchise was at once characterized by Mr. Chamberlain in England as being not of the slightest value, the rest of the promises as illusory, and President Krüger was charged with having broken his word before. The President denied having made promises that he had not kept; he had offered to forgive and forget the Jameson affair, but enemies from without did their utmost to create fresh unrest when the people on the Rand were satisfied. The Government had established an English school at Johannesburg, but the British Uitlanders were not satisfied, and subscribed £100,000 to build schools of their own.

Negotiations between the capitalists and the Boer Government were interrupted when the prospect of conciliation seemed best by a new manoeuvre of the South African League, which circulated a petition addressed to Queen Victoria, to which over 21,000 signatures were obtained. The Boers believed that three quarters of them were spurious, the papers having been signed by visitors at a sporting tournament, by women, children, and Kaffirs, even supplemented with pages of names from old petitions to the Volksraad. Over 24,000 Uitlanders of Afrikaner sympathies, including some of the British and Americans, as well as Dutch, French, and Germans, signed a counter-declaration, expressing satisfaction with the administration of the Transvaal Government, and ascribing the political unrest to the machinations of speculative capitalists. To counteract the effect of this the British party obtained additional signatures to the petition to the Queen, which was handed on March 24 to Conyngham Greene, the British agent in Pretoria, forwarded by him to Sir Alfred Milner, the High Commissioner, and by him accepted and laid before the British Government, with a covering dispatch in which he described the existing crisis as a popular movement like that of 1895, arising out of the Edgar incident, which inflamed the public mind against the police and forced the South African League to take action. The police had proved incompetent to deal with the illicit liquor traffic, but were harsh to people whom they dislike, as was evident from their ill treatment of colored people, and their conduct was a grievance ranking in the breasts of the Uitlanders. None of the grievances complained of in 1895 had been remedied, but others had been added, notably the lowering of the status of the High Court by the new draft of the

Grundwet, which laid down the principle that any resolution of the Volksraad is equivalent to a law. The political turmoil in the Transvaal would never cease unless the Uitlander population were admitted to a share in the government, and while that turmoil lasts no tranquillity or adequate progress is possible in South Africa. The spectacle of thousands of British subjects kept permanently in the position of helots, constantly chafing under undoubted grievances, and calling vainly to the British Government for redress was undermining the influence and reputation of the British Government even in British colonies, where a section of the press preaches openly the doctrine of a republic embracing all South Africa, supporting it by menacing references to the armaments of the Transvaal, its alliance with the Orange Free State, and the active sympathy it would receive in case of war from a section of the colonists. Language is frequently used which seems to imply that the Dutch have some superior right to their fellow-citizens of British birth. Sir Alfred Milner drew the conclusion that a striking proof of the intention of the British Government not to be ousted from its position in South Africa was necessary to put a stop to this propaganda, and that intervention in the Transvaal, though temporarily it might aggravate, ultimately would extinguish the race feud. The petition of the 21,000 British subjects in the Transvaal set forth that for many years discontent has existed among the Uitlanders, who are mostly British subjects. The Uitlanders possess most of the wealth and intelligence in the country, and they have no voice in its government. In spite of the promises of the Transvaal Government and the petitions addressed to the President, there have been no practical reforms. The discontent culminated in the insurrection of 1895. The people then placed themselves in the hands of the High Commissioner, and President Krüger promised reforms. Since then their position has been worse. Legislation has been unfriendly. The petition cites as examples the aliens' immigration act, withdrawn at the instance of the British Government; the press law, giving the President arbitrary powers; the aliens' expulsion law, permitting the expulsion of British subjects at the will of the President without appeal to the High Court, while burghers can not be expelled, this being contrary to the convention. The municipality granted to Johannesburg is ineffective. Half of the councilors are necessarily burghers, though the burghers and Uitlanders number 1,000 and 23,000 respectively. The Government rejected the report of the industrial commission, which was composed of its own officials. The High Court has been reduced to a condition of subservience, the revenues of the country have been diverted for the purpose of building forts at Pretoria and Johannesburg, in order to terrorize British subjects; the police are exclusively burghers, ignorant and prejudiced, and are a danger to the community; jurors are necessarily burghers, and justice is impossible in cases where a racial issue may be involved.

Mr. Chamberlain's dispatch of May 10, in reference to the Uitlanders' petition, contained a severe arraignment of the Transvaal Government, which collected a revenue of £4,000,000, mainly from Uitlanders, to administer a country having a quarter of a million white inhabitants; which, in addition to the dynamite concession, was granting practical monopolies of matches, paper, mineral waters, soap, oil, chocolate, and starch; which in its state system of education endeavor-

ored to force upon the children of Uitlanders the habitual use of the Dutch language; which had retained the right of veto over the acts of the Johannesburg Municipal Council, and had denied a limited form of self-government to the gold-mining industry and commercial firms; which neglected to enforce the liquor law, though the police had brutally treated colored British subjects when arresting them for being without passes; which by the press laws of 1896 and 1898 threatened that freedom of the expression of opinion which was guaranteed by the Constitution, as these empower the President, with the consent of the Executive Council, to prohibit the circulation of printed matter deemed contrary to good morals or a danger to the peace and order of the republic; which under the aliens' expulsion law has power to expel aliens alleged to have incited disobedience of the law or acted in a manner dangerous to public peace and order, while burghers, who can not be banished, may have a special place of residence assigned to them; and which by the law of 1897 instructs the President to dismiss any judge who refuses to recognize resolutions of the Volksraad as having the force of law, consequently confirming the power of the Volksraad to amend laws by a mere resolution and placing the highest court of justice at the mercy of the Executive. The Uitlanders, being for the most part British subjects, accustomed to the exercise of full political as well as municipal rights, had for a long time been striving to obtain an amelioration of their condition prior to the disturbances of 1895, and since then, in spite of the promise of President Krüger to submit to the Legislature all complaints properly presented to him, no substantial measures of reform had been passed; the action of the Executive, on the whole, had the effect of increasing rather than of removing the causes of complaint. Having regard to the position of Great Britain as the paramount power in South Africa, and its duty to protect all British subjects residing in a foreign country, the British Government could not permanently ignore the exceptional and arbitrary treatment to which British subjects and others are exposed and the indifference of the Government of the republic to friendly representations made to it on the subject. Mr. Chamberlain proposed that a meeting be held at Pretoria between the President and the High Commissioner for the purpose of discussing the situation in a conciliatory spirit, in the hope that an arrangement might be made which the British Government could accept and recommend to the Uitlander population as a reasonable concession to their just demands and the settlement of the difficulties that threatened the good relations between Great Britain and the South African Republic. Mr. Hofmeyer and Mr. Schreiner, the leaders of the Afrikaner party at the Cape, at the very same time conceived the idea of a conference between the High Commissioner and the President, to be held neither in Cape Colony nor at Pretoria, but at Bloemfontein, and suggested it to President Steyn, of the Orange Free State, who sounded President Krüger, and found him willing. Sir Alfred Milner was willing too, provided it was first made clear on what understanding the meeting should be founded. In accepting the invitation he expressed the hope of arriving at a satisfactory settlement of the situation which the British Government could accept and recommend to the Uitlanders as a reasonable concession to their just demands. Although Sir Alfred Milner's acceptance was ex-

pressed in terms that went further than President Krüger's intention, he also accepted, declaring that he would gladly discuss every proposal conducing to a good understanding with England, provided that the independence of the Transvaal was not impugned. The answer of the British Government to the Uitlanders' petition also declared the expectation that the conference would result in a solution which should satisfy the reasonable aspirations of the unfranchised.

When the Volksraad assembled on May 1 a new franchise proposal of President Krüger was submitted. Any male stranger who has committed no crime against the independence of the state, who possesses real property worth £150 or draws a salary of £100, or makes an independent living by farming or cattle breeding, and who declares his intention on arriving of permanently residing in the country or obtains naturalization after two years' residence, would have full burgher rights, except the right to vote for the President, nine years after his arrival, on condition of his forswearing allegiance to any other government; and those already resident in the country for nine years could obtain the franchise after two years, while others already naturalized would have to wait only five years. The Rand was to be given 4 additional members. Of the 28 members of the First Raad, 19 are elected in 16 districts in which there are no foreigners or very few, 5 in 3 districts where the Uitlander element is strong but not predominant, and 4 in the Uitlander districts of Barberton, Heidelberg, Krügersdorp, and Johannesburg, which have a male population of 81,000, but only 4,000 voters on the roll, whereas 13 purely Boer districts, with a total male population of 35,000 and a voting roll of 12,000, send 16 members to the Raad. The demand of the Uitlanders was for immediate enfranchisement and an increase in the representation of their districts by at least 5 members.

While the franchise proposals of the President met with strong opposition on the part of the old burghers, they found no favor with the Uitlanders, who demanded British intervention. As these became more and more obstreperous, the party favorable to the Government among the Uitlander workmen also gathered strength. There was yet a prospect of an alliance between the Government and the mine owners, who deprecated political agitation on account of its effect on business, when Mr. Chamberlain's menacing dispatch arrived. On May 16 the Transvaal police arrested on charges of high treason Richard Floyd Nicholls, George Patterson, Charles Agar Ellis, John Allen Mitchell, Edward James Tremlett, Robert Poole Hooper, and Jens Fries, most of them reported to be commissioned officers in the British army, and in fact they were ex-soldiers, though only one or two had held commissions. Excepting two, who were informers, they were ringleaders in a plot either to seize the new fort at Johannesburg with arms obtained in Natal or to destroy it with dynamite, and about 2,000 persons were said to have engaged in the conspiracy, of which the Government had been aware for four months. The fort was garrisoned just previous to the arrests.

The conference between Sir Alfred Milner and President Krüger lasted from May 31 till June 5. Sir Alfred Milner proposed that the full franchise should be given to every foreigner who had been resident in the Transvaal for five years, declared his intention to reside there permanently, and took an oath to obey the laws, undertake all obligations of citizenship, and defend

the independence of the country; the franchise to be confined to persons of good character possessing a certain amount of property; finally, that there should be some increase of seats in the districts where the Uitlanders principally reside. The President considered this proposal tantamount to handing over his country to foreigners. He desired to make any arrangement regarding the franchise contingent on the British agreeing to arbitrate differences between the two governments, but the High Commissioner insisted on discussing it apart from all other questions. The President then presented a counter-proposal, according to which newcomers who apply for naturalization, commit no act against the law or the independence of the republic, possess fixed property or an income of £200, and take an oath similar to that of the Orange Free State, which does not require formal renunciation of previous allegiance, should receive the full franchise five years after naturalization—that is, seven years after their first arrival—on proof of having registered continuously and obeyed the laws; further, that residents since 1890 who become naturalized could become full burghers two years thereafter, and those who had been residents for two years or more could receive immediate naturalization after six months' notice and full citizenship at the end of five years. As this plan gave none of the clamorous Uitlanders the suffrage under two and a half years, since only the adherents of the Boer party were already naturalized, Sir Alfred Milner rejected it as inadequate. He thought that a man ought to be admitted to full citizenship at once, and not wait a number of years after abandoning his old citizenship. It would be a considerable time before any number of Uitlanders worth mentioning could vote for the First Volksraad, and then they would only command one or two seats. The old burghers ought not to be swamped, but as long as the newcomers had no representatives in the First Volksraad they would as a body remain an inferior caste. He suggested giving local self-government to the Rand, but the President refused to entertain the idea, as it would be equivalent to setting up another government in the country. President Krüger offered later to recommend to the First Volksraad an increase in number of its members, whereby the gold fields would be represented by 5 members instead of 2, and the new population would in addition exercise considerable influence on elections in other districts where they were registered. He stated that persons already naturalized five years would be immediately entitled to the full franchise. He pointed out that even in Cape Colony citizenship did not necessarily bring with it the full franchise; that by naturalization the new population obtained the right to vote for the Second Volksraad, and could thereby make their influence felt on questions affecting their particular interests, as the First Volksraad seldom reviewed the work of the Second Volksraad where it concerns the interests of the mining community; that naturalized citizens have the right to serve as jurymen and to select local officials. British subjects becoming burghers would be better off than before, he argued, because in Great Britain and important colonies enfranchised citizens do not elect the members of the highest legislative chamber. He considered that his plan would bring about the gradual fusion of the two sections, but that of the High Commissioner would result in an immediate overmastering of the old citizens. As regards the alternative plan of local government for the

gold fields, a wide measure of self-government had already been accorded, and the Volksraad would doubtless be willing to extend it, so long as it did not constitute an *imperium in imperio*. At the last sitting the High Commissioner objected to the exclusion from the franchise of the persons who had taken part in the revolutionary disturbance of 1895. Three new members for the gold fields he thought too few. He aimed at immediate representation for the Uitlanders to relieve the tension. The situation was grave, and no small measure would any longer be of use. The President replied that his franchise proposal went as far as was possible in the interests of the people and the state, and in principle it was impossible for him to depart from it. In regard to arbitration, he suggested a plan that would avoid the intervention of a foreign government, to which the British Government would not consent under any conditions; this was to refer matters in dispute between the two governments to three arbitrators, two of them South African jurists selected respectively by the two governments, the third to be chosen by the other two, and to be neither a British subject nor a citizen of the South African Republic. Sir Alfred Milner said that he would approve the principle of arbitration if it were possible to avoid foreign intermediation; but the President's did not, because the third member of the tribunal, who would be the real arbitrator, must be a foreigner. Before separating the President made the final proposal to recommend his franchise scheme to the Volksraad if the High Commissioner would recommend his request about arbitration to the British Government, with the expectation that it should be granted, otherwise the people of the republic could not be expected to approve the comprehensive proposal with regard to the franchise. Sir Alfred Milner declined to enter into any engagement, and the conference ended, leaving both parties where they were in the beginning.

When arbitration was first suggested by the Transvaal Government Mr. Chamberlain rejected it as incompatible with the Queen's suzerainty. Dr. Leyds, the then State Secretary, denied that suzerainty existed. In the preamble of the convention of Pretoria, which restored self-government to the Transvaal in 1881, suzerain rights were reserved to Great Britain, and these were specified in that convention as the incompetency of the Transvaal to negotiate directly with foreign powers, the right to maintain a British resident at Pretoria, having control of external and certain internal affairs, and the right of conducting British troops through Transvaal territory. Commissioners were sent to London in 1883 to request modifications of the convention, and their principal task was to obtain the abolition of suzerainty. At their urgent request Lord Derby omitted the word from the new convention, declaring it meaningless, though he objected to an article specifically revoking suzerain rights. The rights themselves were, however, revoked, except that of vetoing within six months any treaty concluded by the South African Republic with any foreign power. The deputation explained to Lord Derby that the convention of 1881 was a unilateral document framed by a royal commission in which the Boers were not represented, and that they wanted to replace it with a new agreement of the nature of the original Sand river treaty, thus changing the relation of a dependency by public law and restoring that of two contracting powers.

On their return to the Transvaal the deputa-

tion reported that the new convention made an end of the British suzerainty and restored full self-government to the republic. Mr. Chamberlain, in answering Dr. Leyds, on Dec. 15, 1898, took the ground that, while the articles of the convention of 1884 substituted a fresh definition of suzerainty, the preamble of the convention of 1881 remained unchanged. Secretary Reitz, Dr. Leyds's successor, on May 9, 1899, reaffirmed the view of the Transvaal Government that the convention of 1881 was entirely abrogated. By the convention of 1884, which superseded it, certain limited and specified rights were guaranteed to Great Britain without there being any further mention of self-government, and thus it follows that the existing absolute self-government is not derived from conventions, but from the inherent right of the republic as a sovereign international state. Mr. Chamberlain declared that the claim to be a sovereign international state was not warranted either by law or history, and wholly inadmissible. He repeated the views of former ministers that the Sand river convention of 1852 itself was not a treaty between two contracting powers, but a declaration that the emigrant farmers beyond the Vaal river, who prior to that were British subjects, would be permitted to manage their own affairs without interference; that annexation in 1877 brought the Sand river convention to an end; that the convention of 1881 restored freedom of action to the Transvaal so far as was not inconsistent with the rights expressly reserved to the suzerain power, the term suzerainty being chosen as most convenient for describing superiority over a state possessing independent rights of government subject to reservations with reference to certain specified matters. He quoted Lord Derby's explanation in the House of Lords in answer to a statement that the object of the convention of 1884 was to abolish the suzerainty of the British Crown, that the word suzerainty was vague and not capable of a precise legal definition, and that, therefore, they had abstained from using it in the new convention; but whether you call it a protectorate, or a suzerainty, or the recognition of England as a paramount power, the substance is retained when the state that exercises the suzerainty has a right to veto negotiations into which the dependent state may enter with foreign powers. During the interviews at Bloemfontein the State President put forward other requests besides the one for the arbitration of disputes arising under the convention—the unfortunate convention, he called it, because the Boers and the English could in no wise understand it in the same manner. He desired the incorporation of Swaziland, which Sir Henry Loch had proposed to allow after seven years, a period to which the Boer Government at that time objected. He pressed for the payment of indemnity for the Jameson raid, for which the Government had demanded £678,000 for material and £1,000,000 for moral or intellectual damages. The second part of the claim Mr. Chamberlain had declined to consider. The actual expenses and losses the British Government accepted responsibility for, and these the British South Africa Company would be required to pay; but when an itemized statement was furnished on request the company's secretary questioned most of the details and demanded vouchers. The company having proposed to submit the claim for material damages to arbitration, Mr. Chamberlain, on May 13, 1899, made a proposition to that effect. The President in his plea for general arbitration suggested that the coolie

law, which required Indians to reside in stations, but to which the British Government objected because they are British subjects, entitled under the London convention to equal freedom with burghers, although similar laws in the colonies are allowed, would be a fit subject for arbitration; also the Swaziland convention. Without arbitration the President could not go to the Volksraad with proposals for giving the franchise to Uitlanders; but if they could agree on a plan regarding the franchise, and dispose of the questions of the indemnity for the Jameson raid and the extension of Transvaal administration to Swaziland, then in the future, arbitration being accepted, all questions arising between the Government and the British subjects who do not want to become burghers could be arbitrated, and the British Government would no longer interfere with the internal government of the republic. The franchise proposals of Sir Alfred Milner were considered by President Krüger to be tantamount to giving over the country to strangers, and the suggestion of an advisory board of Uitlanders to instruct the Government as to the demands and requirements of the Rand population to be equal to establishing the rule of foreigners over the republic. Notwithstanding the failure of the conference, President Krüger submitted his new franchise proposals, making them more liberal than his Bloemfontein memorandum suggested. The income qualification was reduced to £100. The renunciation of former allegiance was no longer required, nor was the consent of two thirds of the applicant's neighbors. Young men born in the country whose fathers are naturalized were given the same status as their fathers, and must register with the field cornet from the age of sixteen. The President also proposed increased representation of the gold fields in accordance with his promise. The members of the Reform party of 1895 who had not received dishonoring sentences would not be excluded from the franchise. The Government in all its various franchise plans retained the discretionary power to confer full burgher rights on Uitlanders who have not completed their stipulated term of residence. Popular meetings were held on the Rand and throughout the republic and colonies, at which the Imperialists expressed approval of Sir Alfred Milner's position, the Afrikaners of that of President Krüger.

Immediately after the conference an exodus of women and children and many men began to take place from Johannesburg, and as the prospect of an armed conflict grew more imminent the flight was attended with panic and disorder. The Government franchise proposals were considered by meetings of burghers in every district, for, as President Krüger explained at the Bloemfontein conference, and gave as his strongest reason for dreading an overwhelming flood of new burghers, the Constitution of the republic requires that such questions be submitted to the people, and makes the will of the majority when formulated in memorials the supreme law, to which the Volksraad must bow. At these meetings the franchise project was either approved or left to the judgment of the Volksraad. War preparations went on actively on both sides. Even during the conference President Krüger demanded an explanation of the strengthening of garrisons on the Natal border. Sir Alfred Milner too wanted to know why Afrikaners had been armed with new rifles, and the President explained that when it was found at the time of the Jameson raid that many were unarmed guns were provided for them, and then all wanted

new guns; that the burghers had always been armed, but their armaments had been suffered to fall into neglect. The Free State Volksraad voted money for equipping burghers and increasing the defenses. The Cape ministers told Sir Alfred Milner that they thought the franchise proposal of President Krüger practical, reasonable, and a considerable step in the right direction, and that nothing had arisen to justify active interference in the affairs of the Transvaal. Mr. Fischer, a member of the Orange Free State Cabinet, and Mr. Hofmeyer, after consultation with Mr. Schreiner, went to Pretoria to urge President Krüger to modify his proposals so as to admit persons resident before 1892 immediately to full citizenship, and to give the option of obtaining the full franchise after seven years without naturalization five years previously. Accordingly, on July 13, the President submitted to the Volksraad a new draft law embodying these changes, with the provision that to obtain the full franchise after a domicile of seven years, past residence also being taken account of, the intention to become naturalized must be notified from the beginning. The Government also proposed to give an extra seat each to Zwartpansburg and Pretoria, as well as 4 to the Rand. Sir Alfred Milner would not accept these concessions as satisfactory, having taken the position that his own proposal was the irreducible minimum. When Mr. Reitz proposed a scheme for general arbitration Sir Alfred Milner, while condemning the plan as unworkable and as involving foreign interference, took the position that nothing should be considered until the grievances of the Uitlanders were redressed. Mr. Chamberlain, in a dispatch dated July 27, referred to the position of Great Britain as the paramount power in South Africa and the responsibilities arising out of the conventions, which he regarded the republic as having violated in raising the period of residence necessary for citizenship from one year by successive stages to fourteen years, which was a complete reversal of the conditions of equality between the white inhabitants subsisting when the British Government granted internal independence in 1881. The successive proposals of President Krüger for extending the franchise to Uitlanders he admitted to be each more liberal than the preceding one, and he proposed the appointment of delegates by the Chief Commissioner and the State President to inquire into the matter, to be followed after they had made their reports by another conference. A proposal for arbitration he would be willing to consider, but not the suggestion of a foreigner for president of the tribunal, nor would he admit the question of suzerainty to be subject of arbitration. When the British Government had asked to have the latest enfranchisement bill submitted for its consideration before it went to the Volksraad the State Secretary returned a polite negative. The measure was passed by the Volksraad and promulgated on July 26. On July 31 Mr. Chamberlain proposed the appointment of delegates to discuss whether the reforms would give immediate and substantial representation to the Uitlanders, and, if not, what alterations would be necessary. On Aug. 1 he telegraphed an invitation to President Krüger to confer with Sir Alfred Milner on the franchise question, arbitration without the introduction of a foreign element, and other matters. Before this British cruisers had been sent to Delagoa Bay, and immediately after the invitation was delivered to President Krüger several battalions were dispatched from England to

Natal. When questioned in the House of Commons, Mr. Chamberlain said they were sent for the defense of Natal at the request of the Governor, and that preparation was being made for all contingencies. Fortifications were erected at Ladysmith, and British troops encamped on the frontier. In Rhodesia Col. Baden-Powell enlisted a regiment of volunteers. Officers of military contingents were sent to London from Australia, Canada, and other colonies; even colored troops were offered by Malay rajahs and by the West African colonial authorities. The Indian Government was asked how many troops it could spare, and a force of 12,000 was got ready to embark for South Africa. Lieut.-Gen. Sir William Butler, who when acting temporarily as High Commissioner had described the Transvaal troubles as the work of the South African League, and said the question was capable of peaceful adjustment, was removed from the chief command of the forces in South Africa, and Lieut.-Gen. Sir Frederick Forrester-Walker appointed in his place.

The Transvaal Government replied on Aug. 19 to the note of Aug. 2 with an offer to comply with Sir Alfred Milner's irreducible minimum by making five years' residence instead of seven a requisite for full citizenship, and to increase the representation of the gold fields to 10 members in the First Raad, with the assurance that their proportion should never fall below one fourth, with a like addition in the Second Raad if desired; the new electors to have the same right of voting for the President and Commandant General as the old electors; also to accept any amendments or simplifications that the British agent might suggest. This offer was made conditional on the abandonment by Great Britain of assertion of suzerainty and on its agreeing to submit questions in dispute to arbitration, excluding any foreign element, but not reckoning the Orange Free State under this exclusion; the present intervention regarding the franchise not to be regarded as a precedent, and Great Britain in future to abstain from interfering with the internal affairs of the republic. The Transvaal Government suggested that if its alternative proposals were accepted the Raad would be dissolved, and, after consulting the people, the new law would go into force within a few weeks, the object being to avert war in South Africa, which would have far-reaching results.

In answer to this, Mr. Chamberlain wrote on Aug. 27 that the British Government had absolutely repudiated the view of the political status of the Transvaal taken by the Transvaal Government, claiming the status of a sovereign state, and would consider no proposal made conditional on the acceptance of this view. Great Britain was prepared to accept the franchise proposals, assuming that they provided for immediate and substantial representation of the Uitlanders, provided a commission of inquiry, whether joint or unilateral, showed the new scheme to be unencumbered with nullifying conditions, as to previous registration, qualification, and behavior, assuming that the new members of the Raad would be allowed to speak their own language. If this were acceded to, the British Government would be willing to settle the details of the proposed tribunal of arbitration in a conference between the President and the High Commissioner, the questions to come before the tribunal for decision being neither Uitlander grievances nor questions of the interpretation of the convention. Should the reply be negative, the British Government must consider the situation *de novo*, and formulate proposals for a final settlement.

On Sept. 5 the Transvaal Government responded that it then withdrew its franchise proposals, which were more liberal than those put forward by the High Commissioner at Bloemfontein. The Transvaal had never desired Great Britain to abandon any right that it possessed in virtue of the convention of 1884 or in virtue of international law, but it wished to assure itself that Great Britain would abide by the London convention and international law, and that the differences in question would be solved in accordance with the rules of justice and equity recognized by civilized states. If a unilateral inquiry should show that the existing electoral law could be made more efficacious, the Transvaal Government was willing to make proposals to the Volksraad on the subject, but was of the opinion that the result of such an inquiry would be of little value. Nevertheless it was anxious to satisfy Great Britain in regard to the electoral law and the representation of the mining districts, and was ready to appoint delegates to hold a joint investigation. The Transvaal was ready also to negotiate on the question of a court of arbitration, though the restrictions imposed would seem to prevent the object aimed at from being attained. The Transvaal offered seven years' franchise, past residence being counted, without naturalization or notice being required except from newcomers. Equality of languages was refused, and no further concessions would be made. The Government of the Orange Free State indorsed the reply of the Transvaal. Mr. Chamberlain, in the last sitting of Parliament, intimated that England had the right to insist on the restoration of the franchise of 1881. The Transvaal officials denied that the franchise bill imposed irksome conditions. All an applicant who is not already registered had to do was to hand in his name to the field cornet with the affidavits of two reputable burghers to the effect that he has resided seven years in the country; if he is registered, the affidavits are unnecessary. Even sedition does not disqualify nor any offense against the law except high treason or heinous crime. During the correspondence war preparations were actively proceeding on both sides. Large consignments of ammunition and arms were forwarded to the Orange Free State through Cape Colony, and others passed by way of Delagoa Bay into the Transvaal. Mauser rifles were distributed among the burghers in the place of the Martini rifles that they had before. Arms were given out to the Free State burghers as well, and some to the Dutch farmers inside the Natal border. A large force of workmen was employed in making trenches, earthworks, and other defenses about Pretoria. A Boer was arrested in Bechuanaland for trying to incite Khama and his chiefs to disaffection. Over 4,000 Germans formed a corps to fight for the independence of the Transvaal in the event of war. Hollanders and other foreigners volunteered their services also. In the middle of August two cargoes of Mauser rifles and cartridges were stopped at Delagoa Bay, orders having come from Lisbon to prevent the further landing of war materials. The Transvaal Government protested against this breach of international law and treaty rights, sending police officials to investigate, who were placed under arrest when they reached Lourenço Marques. In a few days the Portuguese authorities withdrew their embargo. At the same time the Cape ministry allowed munitions to pass freely into the Free State, and, when called severely to account by Sir J. Gordon Sprigg, the leader of the Pro-

gressives, Mr. Schreiner said that, while the relations with the Orange Free State were friendly, it would be a violation of the customs convention to refuse permits. He read a dispatch from President Steyn saying that his republic would only take up arms to defend itself or fulfill treaty obligations, that he hoped the differences between Great Britain and the Transvaal were capable of a peaceful settlement, for war would be a crime against civilization. Mr. Schreiner himself protested his loyalty, and said that if war between white men broke out he would do his best to keep the colony aloof as the only salvation for the future, as the two races would have to live together after the storm. The Transvaal Government issued a proclamation calling on all the inhabitants to take up arms if martial law should be proclaimed. This was an old provision of the Constitution, but the State Secretary assured the British Uitlanders that the Government would never commit the tactical blunder of trying to make them fight against their country or of commandeering any foreigner against his will.

The Transvaal Government on Sept. 6 asked an explanation of the massing of troops on the frontier, and received from Sir Alfred Milner the reply that the troops were for guarding British interests and preparing against contingencies. Boer troops were mobilized and sent to the Natal frontier. The police at Johannesburg tried to arrest the editor Monypenny and several other leaders of Uitlander opinion; but only the journalist Pakeman was caught, and the authorities at Pretoria denied having ordered the arrests. The rest fled to Durban, and the business men of the city fled also in alarm, causing a cessation of much of the traffic and industry that was still going on, and consequent distress among the working people, many of whom also joined the exodus. The Boer forces encamped at Volksrust, and when more battalions arrived at Durban from England and India and marched up to Ladysmith and Glencoe President Krüger dispatched an ultimatum demanding the cessation of these movements within forty-eight hours, otherwise he would consider that a state of war existed. (See SOUTH AFRICAN REPUBLIC.)

Rhodesia.—The region south of the Zambesi river lying north of the Transvaal and the Bechuanaland protectorate, and extending from the Portuguese possessions on the east coast to the German sphere in southwest Africa was declared a British protectorate in 1888, and was committed in October, 1889, by a royal charter to the British South Africa Company. In consequence of the machinations of the company's officers against the Government of the South African Republic and the Matabele and Mashona uprisings the charter was amended on Nov. 25, 1898, by an order in Council which vests the High Commissioner for South Africa with direct authority over the military forces and a general control over the administration that he did not formerly possess. A Resident Commissioner is appointed by the Imperial Government, and the administrator of the Chartered Company is assisted by a Legislative Council, composed of the Resident Commissioner, the Administrator, 5 members nominated by the company and approved by the Secretary of State for the Colonies, and 4 members elected by the registered voters of the colony for three years, which is the duration of the Legislative Council. Every colonist has a vote who occupies a house worth £75 or receives £50 a year income and can read and write. Ordinances passed by the Adminis-

trator and Legislative Council go into effect as soon as they have been approved by the High Commissioner, but any ordinance may be canceled within twelve months by the Secretary of State in London. A Secretary for Native Affairs is to protect the liberties and interests of the natives, who shall enjoy all the rights of Europeans except in regard to the possession of arms and ammunition and the purchase and consumption of spirituous liquors. Land shall be assigned from time to time for tribal settlement, and whenever such land is reclaimed for mineral development by the company, which reserves all mining rights, new lands must be assigned to the natives whose occupation is disturbed. The authorized capital of the British South Africa Company is £5,000,000. It has issued £4,375,000 of shares and debentures for £1,250,000.

The area of British South Africa, or Southern Rhodesia, is 174,728 square miles, divided into Matabeleland, which has an area of 60,728 square miles and a population estimated at 240,000, and Mashonaland, which has an area of 114,000 square miles, with about 210,000 inhabitants. The country is rich in gold reefs, which extend over an area of 5,250 square miles. Silver, copper, lead, tin, antimony, arsenic, and coal have also been discovered. The Administrator of Mashonaland is W. H. Milton. Matabeleland has also an Administrator, Capt. A. Lawley. The Chartered Company derives its revenue from mining, trade, and professional licenses, town business stands, and the postal and telegraph services. The railroad from Kimberley to Vryburg, 126 miles, built by the British South Africa Company, and afterward transferred to the Cape Government, has been extended by the Bechuanaland Railroad Company to Buluwayo, the capital of Matabeleland, with the aid of a subsidy for ten years of £20,000 a year from the Imperial and £10,000 from the Cape Government. It is intended to continue the line to the Zambesi, and eventually to Tanganyika, and perhaps through Congo State or German territory to Uganda and the Nile. The Rhodesia and African Transcontinental Telegraph Company, organized for the purpose of building a continuous telegraph line through the length of Africa by the same route, had 2,635 miles of line, with 3,613 miles of wire, in September, 1898. A railroad outlet for the Mashonaland mines has been provided by the Beira Railway Company, which opened the line from Beira, on the Portuguese coast, to New Umtali in 1898. This railroad has been continued to Salisbury by the Mashonaland Railway Company, and was opened on May 1, 1899. The link between Salisbury and Buluwayo has not yet been completed. The extension to the frontier from Buluwayo and branch lines to Gwanda and other gold fields and the coal deposits at Wankie have been undertaken by the Bechuanaland Railway Company, transformed into the Rhodesia Railways Company, in which the Chartered Company has one half and the De Beers Company and the Bechuanaland Railway Trust each one quarter interest. The Chartered Company and the gold companies have contributed to the bonds of the Rhodesia Railways Company, which has a grant of alternate blocks of all the lands along the railroads and the exclusive right of building new railroads in Rhodesia. Mr. Rhodes sought to obtain the guarantee of the Imperial Government for the capital necessary to extend the line to the Zambesi, but this was refused. The Chartered Company then offered to guarantee the bonds issued for the line through its territory up to Lake Tanganyika.

The route traverses various gold fields, the Mafungabesi coal fields, and a promising copper field on the Karfui river, north of the Zambesi. The railroad from Vryburg to Buluwayo has a length of 600 miles. The next section of the projected Cape to Cairo trunk line will run northeast to Gwelo, 250 miles; thence the intention is to carry it northward at a distance from the sea of from 500 miles, at which the route crosses the Zambesi, up to 800 miles, to some point in Uganda, where it will connect with an extension of the Egyptian system. The route north of Gwelo traverses first an extensive auriferous region, then a wide, level coal area, then the fertile valley of the Zambesi, beyond which it rises gradually to the plateau overlooking the Loangwa valley. This plateau, having an altitude of nearly 6,000 feet, is suitable for cattle rearing or agriculture, and lies midway between Nyassa and Bangweolo lakes, reaching to Lake Tanganyika, about 1,500 miles from Gwelo. The railroad from Vryburg to Buluwayo cost £2,000,000; from there to the Zambesi the estimated cost is £900,000, and the cost of the continuation to Tanganyika is estimated at £3,000,000. This sum was obtained at par and 4 per cent. in the summer of 1899. The railroad is expected not only to open up new regions to European settlement and enterprise, but to supply Rhodesia with needed fuel from the Mafungabesi coal fields and the still more needed labor from the populous countries north of the Zambesi, where the natives are willing and eager to work for 6s. a month, whereas in Southern Rhodesia £4 is the present rate in the mines. From the south to the north end of Tanganyika, 400 miles, steamboats will at first connect the railroad with the one running through German territory for 450 miles to the southern frontier of Uganda. The hope of obtaining the aid of imperial credit, thereby saving £250,000 a year in interest on a probable cost of £10,000,000 for the whole line, has not been abandoned. The telegraph line is being erected with capital furnished by Mr. Rhodes and his associates. The total length from the Cape to Alexandria is 6,670 miles, of which the Cape system from Cape Town to Mafeking supplies 870, and the Egyptian system, when carried to Fashoda, 2,090 miles. The Chartered Company has built the link between that point and Salisbury, 985 miles, and the African Transcontinental Company, of which Mr. Rhodes is the principal shareholder, has undertaken to construct the 2,725 miles connecting Salisbury with the southern boundary of the Soudan. Early in 1890 Mr. Rhodes had a conference with the German Emperor, and through him obtained from the German Government the right of way for the telegraph line through German East Africa on condition that at the end of forty years the line should pass into the possession of the Government, which undertook, however, to make no higher charges for through telegraphy than were necessary to pay the cost of maintenance.

Rhodesia has not advanced in population or prosperity since the first influx of immigrants, partly because the mines are not profitable under present conditions and the climate is not attractive to European settlers, partly also on account of the peculiar land and mining laws of the Chartered Company. At the time when the country was being settled a large number of Dutch farmers were induced to leave other parts of South Africa by promises of grants of land and assistance. Only a few of these obtained the promised farms. The others found temporary employment, principally as transport riders, but

when hard times set in they applied to the Chartered Company for assistance. When the Chartered Company repudiated all responsibility the authorities of the Transvaal offered them farms, and a large number were settled on the lands which the Boers had just before taken away from the Makatese after defeating the chief Mpefu and his followers.

The number of mining claims registered on Sept. 30, 1898, was 130,000, spread over a country 500 miles long by 200 miles broad. The Chartered Company receives half the vender's scrip for each mine that is floated. The companies that were crushing ore in 1898, when there were 4 batteries at work, obtained an average of 14½ pennyweight to the ton, without cyanide, which would give about 4 pennyweight more, making the ore nearly twice as rich as that of the Witwatersrand. There are veins 40 feet broad, and in the ancient mines, which were abandoned on account of water, the reefs run equally wide and quite as rich.

The revenue of the Chartered Company falls far short of the expenditure, which in 1898 amounted to £783,985, while the receipts were £258,786. The white police force numbers 1,200 men, and costs £259,000 a year. The new Council of Rhodesia, which met for the first time in May, 1899, sanctioned taxes on luxuries, the colonists heretofore having been free from all taxation. Machinery and foodstuffs were exempted, though food imported in tins and most articles in common use are taxed at even a higher rate than such luxuries as plate and jewelry. The people and their elected representatives objected to this mode of taxation, by which the poorer classes pay most and the rich companies, including the Chartered Company, are quite exempt. The settlers called upon the elected members of the Council to resign as a protest against being taxed by a private commercial company.

British Central Africa.—The area of British Central Africa, or Northern Rhodesia, is estimated at 251,000 square miles, with a population of about 650,000. The resident Europeans number 350. Experiments are being made in coffee growing. Gold is found in the south. The Stevenson road connecting the Nyassa and Tanganyika lakes has been repaired. The British South Africa Company, which has undertaken the development of the region, intends to establish a station on the Tanganyika plateau, which is believed to be healthful, but its representative, Robert E. Codrington, has hitherto remained at Blantyre, in Nyassaland. The telegraph line from the Cape through the British South Africa territory, Portuguese East Africa, and Nyassaland has been continued from Zomba northward to the end of Lake Nyassa, and thence to the south end of Lake Tanganyika.

In the country of the Barotse, on the west side of British Central Africa, the British South Africa Company is represented at the king's capital by Major R. T. Coryndon, as Resident Commissioner. The region between Lakes Nyassa, Tanganyika, Mweru, and Bangweolo is divided into the districts Chambezi, Tanganyika, Mweru, Luapala, and Loangwa. The Europeans are engaged mostly in planting or trading, but the smaller branches of trade are carried on by Banyans. The imports for the year ending March 31, 1897, amounted to £114,000, including £14,000 of specie. The exports were valued at £40,000, showing an increase of £10,000 over 1898. The chief articles were coffee for £24,000, rubber for £10,000, and ivory for £3,000. The coffee brings the highest price of any that is sold

in the London market. Rice and mealies are grown and tobacco cultivation has been begun. The rubber export was nearly ten times as great as in 1898. Revenue increased as well as trade. The hut tax yielded 50 per cent. more than in the previous year. The armed force consists of 1,000 natives, instructed by Sikhs and commanded by British officers of the regular army. The Angonis, who were formerly troublesome, have settled down to peaceful occupations, and laborers for the plantations are obtained without hindrance. A strong garrison is kept in a fort on their plateau. Many hundreds of natives of the lake districts have gone south to work in the mines of Southern Rhodesia. Toward the end of June, 1899, the troops of the protectorate were sent out to punish Angura and Yao chiefs south-east of Lake Nyassa, on the Portuguese border. The Portuguese of Mozambique joined in an expedition against the chief Mataka, who harbored the chiefs Makanjira and Grafi after they were driven over the border, and assisted them in raiding British territory.

British Central African Protectorate.—The district of Nyassaland, declared a British protectorate on May 14, 1891, is administered by a Royal Commissioner, Alfred Sharpe, under instructions from the Foreign Office in London, and the expenses in excess of the local revenue are defrayed by means of a grant in aid from the Imperial Government. The area is 42,217 square miles. The population in 1897 was 844,995 natives, 300 Europeans, and 293 Banyan traders from India. Blantyre, the chief town, has a population of 6,000 natives and 100 Europeans. The local revenue in 1897 was £24,538, of which £8,966 were derived from customs. The expenditure was £65,715. The imports in 1898 were valued at £86,428, against £78,655 in 1897; exports, £27,437, against £23,299. The principal imports are cotton cloth, machinery, agricultural implements, provisions, and hardware. The exports of coffee in 1898 were £22,402 in value. Ivory is the only other important export. Rice, wheat, oats, and barley are grown. A military force of 185 Sikhs and 800 native soldiers is maintained for the suppression of the slave trade. There is also a police force of 200 men. Gunboats are kept on the Zambesi and Shire rivers and on Lake Nyassa.

Portuguese East Africa.—The Portuguese possessions, now confined to the east coast north and south of the Zambesi, are divided into the provinces of Mozambique, Zambesia, and Lourenço Marques, the military district of Gaza, and the districts of Inhambane, Manica, and Sofala. The total area is estimated at 301,000 square miles; the total population at 3,120,000. The boundary between Portuguese and British Manica was arbitrated, and early in 1899 the commissioners of the two governments agreed on a rectification of the proposed line, concessions being made on both sides to suit the respective interests. The Mozambique Company, possessing sovereign rights under a royal charter for fifty years from 1891, administers the two last-named districts, and the Nyassa Company has like authority in the region between the Rovuma, the Lurio, and Lake Nyassa. The Government maintains a military force of 4,888 men, of whom 3,246 are natives. The revenue for 1898 was estimated at 4,232,326 milreis, the expenditure at 3,945,765 milreis. The imports at the port of Mozambique in 1897 were valued at £151,823, and exports at £160,571; at Beira the imports were £578,500 in value, and the exports £35,460; at Lourenço Marques the imports were

£784,000, and exports £38,000 in value; at Quilimane the imports for 1895 were valued at £94,537, and exports at £70,344. Gold mining has been attempted by English companies in Manica. The Delagoa Bay Railroad has a length of 57 miles on Portuguese territory, and extends 290 miles into the Transvaal to Pretoria. The Beira Railroad runs for 222 miles on Portuguese territory to the border of Mashonaland. Telegraphs connect Beira with Salisbury and Lourenço Marques with Pretoria. The number of vessels that entered the port of Mozambique in 1897 was 236, of 171,471 tons, of which 57, of 84,328 tons, were German, and 24, of 32,394 tons, British; Beira was visited by 237 vessels, 118 of them, of 131,667 tons, British, and 58, of 86,061 tons, German; Lourenço Marques, by 267 vessels, of 691,000 tons; Chinde, by 69 vessels, of 32,850 tons.

German Southwest Africa.—The total area of the German sphere in Southwest Africa is estimated at 322,450 square miles, with a population of about 200,000 Hottentots, Bushmen, Damaras, and Kaffirs. The number of whites in 1897 was 2,628. The military force numbers 755 officers and men, exclusive of the native troops. The revenue for 1896 was 1,856,860 marks, of which only 156,860 marks were collected in the country and 1,700,000 marks were contributed from the imperial treasury. The expenditure was 1,991,480 marks. For 1899 the revenue is estimated at 6,970,000 marks, including an imperial contribution, and the expenditure at 5,001,000 marks. The chief imports are cotton cloth and provisions. The exports are guano and ostrich feathers. The total value of the imports for 1897 was £244,366, and of the exports £62,337. The German authorities, following the example of Natal and Rhodesia, have taken measures to restrict and hamper the operations of Hindu traders. One edict forbids any more selling of goods to the natives on credit, because the Indian dealers have reduced the coast natives to a state of dependence by means of usurious contracts; and another edict imposes excessively high trading licenses.

CHARITIES OF THE UNITED STATES.

The object of this article is to show, as nearly as possible, the amount appropriated or expended by each State as a unit and by the largest municipalities as units toward the support and proper care of institutions and individuals under certain specified headings within their respective boundary limits, and also to exhibit, as completely as can be done from available reports, the totals of individuals benefited by such appropriations or expenditures. These headings, grouped together, represent the principal charities recognized officially by State and municipal governments. The classes treated of include: 1. Poor in poorhouses, etc. 2. Destitute children. 3. Sick and injured. 4. Blind. 5. Deaf and dumb. 6. Feeble-minded. 7. Insane. 8. Epileptics.

Some of the minor classes are not mentioned in the foregoing, and several combinations are omitted because they are exceptional. For example, in Colorado there is an institution for deaf and blind. A special appropriation is made in that State also for dependent children, for whom a home is provided, and still another for a soldiers' and sailors' home. Idaho has an appropriation under the special heading, Blind, dumb, and deaf. In several States, notably Indiana and Iowa, special provision is made for soldiers' orphans. In Massachusetts the appropriation for insane includes provision for epileptics and dipsomaniacs. * Nebraska sustains a home for the

friendless. West Virginia has established a home for incurables.

State and municipal provision for the criminal classes is not included in this article. Owing to a lack of proper definition with reference to industrial and reform institutions for children, it has been deemed best not to include here items that are given under headings referring to these classes.

It is impossible within the limits of this article to exhibit much more than an outline; but, through the courtesy of State executives, their departmental officers, the general secretary of the National Conference of Charities and Corrections, the Commissioner of Labor in Washington, the special agent in charge of statistics of crime, pauperism, and benevolence for the eleventh census, and others who are interested in the general subject, a sufficiently full showing has been made available to form a statement of great interest. A summary of recent and pending legislation and the latest Federal statistics on the subject of pauperism and benevolence will be found at the end of this article.

Alabama.—According to an official statement recently received, there are only two charitable institutions supported by the State—i.e., the Institute for the Deaf, Dumb, and Blind, at Talladega, and the Asylum for the Insane, at Tuscaloosa. From the latest report it is noted that what is known as the Institute for the Deaf, Dumb, and Blind embraces three distinct establishments, divided into numerous departments, including 171 deaf pupils, 100 blind pupils, and 53 negro deaf-mutes and blind. The insane asylum is known as the Bryce Insane Hospital. It will hold 1,100 patients, but the daily average is in excess, being 1,276. The expenditure for this latter institution in 1897-'98 was \$145,424. There are no statistics available concerning paupers in county poorhouses. Children of more than ten years of age are not allowed to remain in poorhouses, but are assigned by probate judges to respectable families. There are orphan homes in connection with the churches. All the larger cities of the State have hospitals.

Alaska.—No means have been provided in Alaska for the care of orphans, old people, deaf and dumb, blind, or insane persons. Steps have been taken to provide, through Congress, for the establishment of an asylum or sanatorium west of the main range of the Rocky mountains for care and custody of persons legally adjudged insane in Alaska. Orphan children were formerly made slaves, but the Christian missions have largely done away with this cruelty. In the village of Sitka are several men totally blind. They are good fishermen, and earn their living for the most part by fishing. Old people are sadly neglected, unless one should be a woman of high caste who has children. Such are well taken care of.

Arizona.—The poor, sick, and injured are cared for in county hospitals; blind and deaf-mutes are sent to a blind asylum in an Eastern State, expense being paid by the Territory; no provision is made for feeble-minded children; 168 insane patients are maintained entirely by the Territory in the asylum at Phoenix.

Arkansas.—Reports have been received from three institutions—viz., the State Lunatic Asylum, the School for the Blind, and the Deaf-mute Institute. The lunatic asylum is at Little Rock, and has a nominal capacity of 650. The daily average number of patients is 550. The State appropriation for two years ending April 1, 1899, was \$120,000. It is reported that the number

of applications for admission is steadily increasing. The total enrollment for the blind school, 1897-'98, was 265. The appropriations, 1897-'98, amounted, in round numbers, to \$61,000. The total enrollment for the Deaf-mute Institute, 1898, was 276. The appropriations, 1897-'98, amounted, in round numbers, to \$86,000.

California.—A very determined effort was made before the Legislature of 1899 to establish a State board of charities and correction. The bill introduced passed both houses, but was refused by the Governor. A bill for the disestablishment of the Home for Adult Blind, and bills for the further improvement of the Home for the Care and Training of Feeble-minded Children, and especially for the epileptic colony, newly established under the care of said home, also passed both houses, but were vetoed by the Governor.

Two new hospitals have been opened—one supported by a charitable Hebrew organization, but absolutely nonsectarian as to its patients; the other was organized by representatives of several Protestant churches, the Masonic order, and Odd Fellows, called the Christian Hospital Association, and is designed to care for people of a good class not able to pay usual hospital rates.

Aged and infirm poor are maintained by their respective counties in hospitals, poor farms, and almshouses. In most counties the healthy poor are not separated from those who are sick or injured. From the counties reporting, 9,375 of these two classes have been maintained during the year 1898. In the San Francisco Almshouse the number reached 1,000.

Destitute children are maintained chiefly in orphanages supported by the State. A few are allowed in poorhouses in distant counties. During the half year ending June 30, 1898, 863 orphans, 5,160 half orphans, 536 abandoned children, and 186 foundlings were supported, at a cost to the State of \$204,701.91.

The two State institutions for the care of the blind are the Home for Adult Blind, in Oakland, and the Deaf, Dumb, and Blind Asylum, in Berkeley. There were 237 inmates in the latter institution for 1898. From the former we could obtain no information. In 1897 there were 100 inmates.

No separate State institution is maintained for deaf-mutes, they being received into the home at Berkeley with the blind. The Catholic Sisters of St. Joseph have opened during the past year a home for deaf-mutes, and have some 60 pupils.

Idiotic and feeble-minded persons are kept in a home at Eldridge. The number of inmates, 1898, was 576. This included those in the school, custodial and industrial departments. The sum of \$199,700 was allowed by the last Legislature for two years' support.

There are five insane asylums in the State. The State Insane Asylum is at Stockton. Its nominal capacity is 1,000 males and 500 females. The average number of inmates is 1,564. The expenditure for this asylum, 1897-'98, was \$193,733. The Napa State Asylum for the Insane has a nominal capacity of from 900 to 950. According to the latest available report, 1894-'95, the number of patients treated during that fiscal year was 1,689. The expenditure for that year is reported as being \$198,862. The report of the Agnew State Hospital, at Agnew, shows a nominal capacity of 1,000. The number of patients treated, 1897-'98, was 1,109, the daily average being 914. The expenditure for the year was \$121,169.

The City and County Hospital, San Francisco, is a general hospital. Total receipts, \$91,394; total expenditures, \$91,394; number of beds, 437; daily

average number of beds occupied, 378; number of in-patients, 4,401; number of out-patients, 772; cost per in-patient per day, 67 cents.

Information concerning charitable institutions supported by cities in this and other States is given in the second part of the article, which is devoted exclusively to municipal establishments under the general heading of Charity.

Colorado.—From the official report, 1897-'98, concerning State charities, it is gathered that the appropriation for deaf and blind for that year was \$5,000. This amount was for one institution, having 115 patients. An expenditure of \$50,318.52 is shown for one insane asylum. Twenty thousand dollars was appropriated toward the support of dependent children. An appropriation of \$40,000 is credited to soldiers and sailors, and \$3,000 for upkeep of the State Board of Charity.

The appropriation mentioned above for dependent and neglected children was a special one, intended to defray the cost of a permanent site and building. The lunacy act of the State has been revised, rendering its provisions similar to those of New York, and including insistence on the deportation of pauper insane not residents of the State. Appropriations by the Legislature for maintenance and improvements recommended by the State Board of Charities and Correction were very liberal, considering the condition of the State treasury.

The appropriations for 1900 were as follow: State Home for Dependent Children, \$15,000; State Insane Asylum, \$30,000; State School for Mute and Blind, \$22,000; State Soldiers' and Sailors' Home, \$20,000.

Besides these legislative appropriations, a regular tax of one fifth mill goes to the State School for Mute and Blind, and a one-fifth-mill tax is appropriated for the support of the State Insane Asylum. Appropriations in addition to the foregoing are made for improvements, for the erection of new buildings, and for the purchase of a permanent site for the State Home for Dependent Children.

An important measure has been passed in the State Legislature, whereby a penalty is imposed for the commitment to or retention in county temporary homes for dependent children of any demented or idiotic children or children suffering from incurable or contagious diseases. An effort was made to provide for the commitment of such children to the care of the boards of management of the county homes, in order to have them under responsible supervision, but not to place them in the homes with other children, and the matter is still under consideration. A bill to transfer the cost of support of children in the county homes from the State, where it now rests, to the towns from which the children are committed, will probably be defeated. Another bill has been introduced, providing that no complaint should be brought for the commitment of a child to a county home until after it had been investigated and approved by the town committee.

Only a portion of the counties have poorhouses or poor farms, relief being given at the homes and the sick being cared for in private hospitals. The approximate population of dependent paupers is about 250 in the State. In the Soldiers' Home, March 1, 1899, 146.

In the State Home for Dependent Children, March 1, 1899, 64; in private orphanages, 500 (approximate number); in county institutions, none.

There are 25 hospitals in the State, nearly all under private auspices, having an average population of about 500.

The State Institution for the Education of the Deaf and Blind on March 1, 1899, had 114 inmates.

There is no institution in the State, either public or private, for feeble-minded children. Statistics show a population of 250 such.

The insane in the State Hospital, March 1, 1899, numbered 473; at Dr. Work's sanatorium at Pueblo, March 1, 1899, 56; in the county hospital, Denver, 15; none in county poor farms or jails.

Connecticut.—From the official report for the year ending Sept. 30, 1898, it is ascertained that the following appropriations were granted by the Legislature: Blind, 1 institution, \$52,000; deaf and dumb, 1 institution, \$40,000; insane, 3 institutions, \$297,000; hospitals, 14 institutions, \$117,000; almshouses, 8 institutions, \$129,000.

A temporary home is provided in each of the 8 counties for the shelter of dependent and neglected children between the ages of four and eighteen until suitable family homes can be found for them. The average number of inmates in the county homes is 680.

The sick and injured poor are cared for in a number of city hospitals at the expense of the towns that send them and of the State, which furnishes appropriations for most of these hospitals. Fitch's Home for Soldiers, at Noroton, has an average number of 470 inmates.

The State has about 70 blind beneficiaries, of whom 20 are supported at the Perkins Institution, South Boston, and about 50 at the Institute and Industrial Home for the Blind in Hartford.

The State supported during the past year 108 deaf pupils, of whom 74 were at the American School for the Deaf, at Hartford, and 34 at the Mystic Oral School.

Feeble-minded children are cared for and instructed at State expense at the Connecticut School for Imbeciles, Lakeville. Average number, 170.

The Connecticut Hospital for the Insane, at Middletown, has an average of about 1,900 inmates, but is considerably overcrowded. The Retreat for the Insane at Hartford has an average of 150 patients. The number of insane persons in the State is increasing gradually, but it has not yet been shown that the increase is out of proportion to the increase in population.

Bridgeport Hospital is a general hospital. Total receipts, \$28,792; total expenditures, \$28,598; number of beds, 90; daily average number of beds occupied, 65; number of in-patients, 819; number of out-patients, —; cost per in-patient per day, \$1.21.

New Haven Hospital is also a general hospital. Total receipts, \$55,327; total expenditures, \$57,145; number of beds, 165; daily average number of beds occupied, 118; number of in-patients, 1,154; number of out-patients, —; cost per in-patient per day, \$1.33.

Delaware.—The last Legislature made the following appropriations: Society for the Prevention of Cruelty to Children, \$1,800; Babies' Hospital, \$500; State Insane Hospital, \$92,000.

The average of poor in poorhouses is about 350 adults and 10 children (temporarily) in the three county almshouses. The aged poor in homes average 72.

The various homes and orphanages provide for all the destitute children of the State. All are private charities, aided by small appropriations from the Legislature and the Levy Court.

Sick and injured are provided for in county almshouses and in the Delaware and Homœopathic Hospitals. Patients attended in hospitals, 500; dispensary cases, 3,000.

There are no institutions for blind and deaf-mutes. Appropriations from the Legislature permit three from each county to enter schools elsewhere.

Appropriations from the Legislature permit five from each county to enter the Feeble-minded School at Elwyn, Pa.

The State Hospital for the Insane has 165 men and 120 women patients. The new building erected last year has proved a valuable addition and aid in caring for and in the proper treatment of cases. The bacteriological department introduced by legislative enactment this last year is considered of marked importance.

District of Columbia.—The bill to create a board of charities for the District of Columbia, which was carried over from a previous session of Congress, was crowded out, and failed to receive final consideration. The Fifty-sixth Congress will be asked to consider it. A bill to create a municipal hospital was introduced, but could not be given an advanced position, and consequently failed to receive consideration. Five sectarian child-caring institutions were dropped from the list of assisted institutions. A heavy deficiency in current appropriations for care of dependent children under official guardianship was met by adequate appropriation. An appropriation of \$65,000 was secured for new buildings for an official institution long neglected.

Poor in almshouse, 229; dependent children, 824; in hospitals, 339; blind, 21; deaf-mutes, 36; feeble-minded, 47; insane, 964.

Two important charitable organizations have recently been established in the District—one, a private voluntary corporation, having for its object the better care of the adult blind; the other, a semipublic corporation, formed, at the solicitation of the local government, for the purpose of receiving such contributions as citizens may make for the relief of the poor in their own homes, and such income from invested funds as has heretofore usually been distributed to the poor by the metropolitan police. This corporation, known as the Citizens' Relief Committee, is the result of several years of careful work for the reformation of the troublesome matter of outdoor relief, and it is believed that it will furnish an agency for the distribution of such relief wholly trustworthy, and having for its particular duty the giving of outdoor relief.

Florida.—It is reported in the statement of the Superintendent of Public Instruction issued this year that \$10,000 was appropriated for 1898 in aid of the Deaf and Blind Institute. This establishment, according to the last report, provided for 33 deaf and 9 blind white pupils and 18 deaf and 2 blind negro pupils. The superintendent of the Florida Asylum for the Insane, in his last report, says that the State appropriation granted for 1899 was \$70,000. An equal amount has also been set aside for 1900. The expenses of the institution for the year ending Dec. 31, 1898, were \$56,850.55. The nominal capacity is 650.

Georgia.—No official statements procurable. It is learned from unofficial sources that the State Lunatic Asylum, Milledgeville, has a nominal capacity of 2,400; daily average number, 2,247.

Idaho.—The State appropriations for charities for the two years ending January, 1901, is reported as \$102,000. Of this total, \$12,000 was set apart for blind, dumb, and deaf. The appropriation for insane patients amounted to \$80,000. The sum of \$10,000 for the Soldiers' Home is included in the total amount given. The latest available report from this State shows that a

measure has become law requiring that the indigent must be supported by the relatives of the same as far as their ability will permit.

The State maintains the insane asylum located at Blackfoot. It has a nominal capacity of 170; daily average, 166. The Soldiers' Home, Boisé City, is supported in part by the State, which avails itself of the federal provisions for such purposes. Some of the counties maintain poor-houses. The blind, deaf-mute, and feeble-minded children are educated at the expense of the State, under the direction of the State Superintendent of Public Instruction, who places these defectives in the schools or homes for defective youth of the adjoining States.

Illinois.—The State appropriations for charitable institutions, 1899–1900, amounted to \$4,285,381.12. This amount was divided up as follows: Blind, \$102,967; deaf and dumb, \$217,700; insane, \$3,355,894.12; orphans, \$138,100; hospitals for eye and ear, \$74,200; miscellaneous charities, \$396,500.

The chief event of the year in the field of charities and correction has been the passage of the bill to regulate the care and treatment of dependent, neglected, and delinquent children. For a year past the subject has been vigorously agitated. The State Conference of Charities of 1898 devoted its entire time to this subject. The Board of Public Charities considered the subject carefully. The State Federation of Women's Clubs and many of the local women's clubs discussed it. The Chicago Bar Association adopted a unanimous resolution in favor of suitable legislation, and appointed a committee to draft a bill. The committee consulted with representatives of the children's institutions and the various organizations interested, and finally produced a bill which, after considerable amendment, became a law.

The purpose of the bill is expressed in its last section, as follows: "This act shall be liberally construed, to the end that its purpose may be carried out, to wit: that the care, custody, and discipline of a child shall approximate, as nearly as may be, that which should be given by its parents; and, in all cases where it can be properly done, the child be placed in an approved family home, and become a member of the family by legal adoption or otherwise."

The bill is outlined as follows: A "juvenile court" is established in the city of Chicago, to be presided over by a circuit judge chosen by his fellow-judges. Confinement of children under twelve years of age in county jails or police stations is prohibited. Probation officers are authorized, but without public compensation. Children are brought before the court by summons instead of warrant.

"Dependent children"—i. e., those dependent on the public, homeless, abandoned, begging, peddling, performing, cruelly treated, having vicious parents, etc., having been adjudged dependent—may be committed to the guardianship of an individual, a society, or an institution, with power to dispose of by adoption or indenture.

"Delinquent children"—i. e., offenders against State laws or municipal ordinances—may be committed to an institution or to the care of a probation officer or to an accredited association.

The law provides that it shall be unlawful to confine any in the same building or in the same yard or inclosure with adult convicts, or to bring any child into any yard or building in which adult convicts may be present.

Associations receiving children under this act are subjected to the supervision and inspection of the State Board of Public Charities, and must

report as required by the board. County boards of visitation may be appointed by county judges to inspect institutions and societies receiving children under this act.

Associations incorporated in other States must furnish the Board of Public Charities with such guarantee as they may require that they will not introduce children "having any contagious or incurable disease, or having any deformity, or being of feeble mind or of vicious character, and that they will remove from the State any child which may become a public charge within five years after having been brought in."

The following details have been made available concerning 13 charitable institutions supported by the State. The figures given are for the fiscal year ending June 30, 1898. The expenses shown are what is known as "ordinary expenses." The number of inmates given represent those remaining on June 30, 1898: Northern Insane Hospital: inmates, 1,059; expenses, \$152,093.16; Eastern Insane Hospital: inmates, 2,216; expenses, \$305,187.49; Central Insane Hospital: inmates, 1,187; expenses, \$158,099.67; Southern Insane Hospital: inmates, 962; expenses, \$121,499.79; Western Insane Hospital: inmates, 354; expenses, \$16,599.14; Asylum for Insane Criminals: inmates, 152; expenses, \$29,935.50; Institution for the Deaf and Dumb: expenses, \$97,112.41; Institution for the Blind: expenses, \$45,874.26; Asylum for Feeble-minded Children: inmates, 699; expenses, \$105,634.51; Soldiers' Orphans' Home: inmates, 306; expenses, \$58,926.45; Eye and Ear Infirmary: inmates, 101; expenses, \$28,769.61; Soldiers' and Sailors' Home: inmates, 1,399; expenses, \$145,120.95; Soldiers' Widows' Home: inmates, 23; expenses, \$7,053.02.

Indiana.—The sum expended by the State in behalf of charitable institutions for the year ending October, 1898, was \$901,009.66. This amount was divided up as follows: Blind, \$31,235.04; deaf, \$64,627.77; insane, \$549,559.24; soldiers' and other orphans, \$93,637.99; Soldiers' Home, \$78,110.61; for feeble-minded, \$83,839.01.

The Legislature made specific appropriations to the Central Hospital for Insane to the amount of \$178,000, of which \$49,000 was to provide for two dining rooms for men and one for women, and \$110,000 for a hospital. These changes will increase the capacity of the institution by 205. Specific appropriations were made to the Northern Hospital for Insane, amounting to \$85,000, \$80,000 of which is to be used to erect new buildings, one for men, the other for women, with a capacity of 100 each. The Eastern Hospital for the Insane received \$75,200, out of which are to be built two hospital cottages, one each for men and women, to accommodate 30 beds each, costing \$33,000, and one cottage for men with a capacity of 48, costing \$28,000. The Southern Hospital for Insane received specific appropriations amounting to \$66,000, including \$40,000 for the erection of a wing to accommodate 132 patients.

An appropriation was made to build and furnish a dwelling house for the superintendent of the Institution for the Deaf, by reason of which it will be possible to readjust the disposition of inmates so as to accommodate 40 more. For the School for Feeble-minded \$47,000 was appropriated specifically, \$42,500 of which is to be used for the erection of two custodial cottages, one to accommodate 100 girls, the other 100 boys.

During the past year societies for organizing charity have been formed in Franklin and Alexandria. In the latter place work among tramps is receiving particular attention. A Home for

the Friendless has been established in Elwood, a Door of Hope in Terre Haute, and hospitals for the sick and injured in Goshen and Evansville. Near Middletown is a new institution for the aged poor, under the management of the German Baptists; and at Greensburg there is being erected an orphans' home by the Independent Order of Old Fellows. A hospital for the treatment of mental and nervous diseases has been organized in Indianapolis, and during the past year has begun active operations. Two counties in the State—Allen and Vanderburgh—have taken advantage of the law authorizing the organization of boards of children's guardians in counties having a population of 50,000.

There were in county poor asylums, Aug. 31, 1898, 3,102; in the Soldiers' Home, Jan. 31, 1899, 553.

The number of dependent children in the Soldiers' and Sailors' Orphans' Home, Jan. 31, 1899, was 629; county orphans' homes, Oct. 31, 1898, 1,596; in county poor asylums, Aug. 31, 1898, 153.

In the Institute for the Blind, Jan. 31, 1899, there were 132 pupils; county poor asylums, Aug. 31, 1898, 151.

The Institution for the Deaf on Jan. 31, 1899, contained 326 pupils; county poor asylums, Aug. 31, 1898, 49.

The School for Feeble-minded Youth on Jan. 31, 1899, contained 595 pupils.

The total enrolled population of the four insane hospitals, Jan. 31, 1899, was 3,459; county poor asylums, Aug. 31, 1898, 422.

The following details have been made available concerning nine charitable institutions supported by the State. The figures given are for the fiscal year ending Oct. 31, 1898. The expenses shown are the net total expenses. The number of inmates given represents the total enrolled on Oct. 31, 1898: Central Hospital for the Insane: inmates, 1,680; expenses, \$261,806.35; Northern Hospital for the Insane: inmates, 636; expenses, \$94,327.41; Eastern Hospital for the Insane: inmates, 545; expenses, \$93,067.37; Southern Hospital for the Insane: inmates, 534; expenses, \$98,667.07; Soldiers' Home: expenses, \$70,933.70; Soldiers' and Sailors' Orphans' Home: expenses, \$93,637.99; Institution for the Deaf: expenses, \$63,468.09; Institute for the Blind: expenses, \$30,494.01; School for Feeble-minded: expenses, \$80,000.

Indian Territory.—The Indian Territory is unorganized so far as general legislation is concerned. The five civilized tribes have each a legislative body, but the acts of these pertain only to the tribal limits. There are orphan schools in each tribe. The work of these has been quite effective in many cases. In the Choctaw nation a school is conducted for orphan girls at Garvin, Indian Territory, one for boys at Academy, Indian Territory, and the nation arranged by special contract with the Atoka Baptist Academy to care for 50 orphan children.

Work to about the same extent is done for orphans in the other nations. There are many poor white people renting land of the Indians and working in mines or cutting timber. There are thus many chances of orphanage, with but poor opportunity of relief. A very hopeful work has been started at Pryor Creek for the purpose of caring for the white orphans. This movement is dependent wholly upon contributions for support.

There are no poorhouses in the Territory. In some of the tribes special provision is made for the indigents. An effort was made two years ago to establish a school for the blind at Fort

Gibson. Particulars as to its success are not forthcoming. A few hospitals have been established. The railroads operating in the Territory have hospitals in the adjoining States, and send the injured and sick there for treatment. A few deaf-mutes have received instruction in the States by special arrangement. It is not known that any insane asylum exists in the Territory.

Iowa.—The sum expended by the State in behalf of charitable institutions for the year ending January, 1899, was \$693,984.45. This amount was divided up as follows: Blind, \$34,041.34 for two institutions; deaf and dumb, \$43,321.43 for one institution; insane, \$493,594.17, with 3,430 patients in three institutions; soldiers' orphans, \$47,599.47; Soldiers' Home, \$75,428.04.

The Legislature of Iowa meets biennially, and was in session in 1898. The reports of the various institutions are made to cover the same period, as a rule. This being the case, Mr. Burnett's report for 1898, which was as follows, so far as charitable institutions are concerned, applies equally well this year.

The number of adults in the poorhouses of the State is comparatively few, as several excellent institutions for the care of aged and infirm are in operation.

The State maintains an orphanage for destitute children at Davenport. The average during 1897 was 400, the number of girls being 200 and boys 290. Three fifths of them were soldiers' children. Less than 50 children are supported in the almshouses and at public expense in the various counties of the State.

The State maintains a central school for the blind at Vinton, with a smaller one at Knoxville. According to the last biennial report of the superintendent at Vinton, there are 246 inmates.

The State maintains an institution near Council Bluffs for the education of deaf-mutes.

The magnificent institution for feeble-minded at Glenwood, lately injured by fire, was reported in 1898 as being rebuilt, with about 730 pupils, with many applicants unable to be admitted for lack of room. The estimated value of equipment is \$350,000.

Three asylums for the insane are now in operation, and the fourth, at Cherokee, will soon be completed. A great number of insane patients, deemed incurable, are kept by the counties in local asylums. At Clarinda, according to the latest report, there were 747 patients. At Mount Pleasant the ninth biennial report gives an average of 885. Independence Hospital has a capacity for 1,000 patients, and is full. An industrial building, erected in 1897, contains shops for male patients to work in, chiefly during the winter season. In these shops repairs are made to clothing and shoes, and a number of useful articles, such as slippers, brooms, harness, baskets, rag carpets, cocoa-fiber matting, door mats, and pictures, are produced. There is also a printing office, from which a monthly paper is issued. The hospital also maintains a large farm, a training school for nurses, and a well-appointed pathological laboratory.

Kansas.—The State charitable institutions of Kansas include the State Insane Asylum, Topeka; Insane Asylum, Osawatimie; Institutions for the Education of the Deaf and Dumb, Olathe; Institution for the Education of the Blind, Kansas City; Asylum for Idiots and Imbecile Youth, Winfield; and Soldiers' Orphans' Home, Atchison. A new ward building, for which \$65,000 was appropriated by the Legislature of 1897, is now a part of the institution. The same Legislature

appropriated \$12,000 for improved drainage and water supply at the Institution for the Education of the Deaf and Dumb. Within the past three years \$35,000 was granted for improvements at the Soldiers' Orphans' Home. In addition to these appropriations, the sum of \$37,000 has been granted for improvements at the Institution for the Education of Idiotic and Imbecile Youth. According to the latest available official report, the number of inmates at the Topeka Insane Asylum was 781; Osawatimie Insane Asylum, 1,026; Institution for Deaf and Dumb, 261; Institution for the Blind, 98; Asylum for Idiotic and Imbecile Youth, 132; Soldiers' Orphans' Home, 175.

A prepared statement of expenditures by the State for these various institutions and for all charitable and benevolent purposes during the fiscal year ending June 30, 1899, shows the following totals: Blind Asylum, \$19,998; Deaf and Dumb Asylum, \$42,430.22; Idiotic and Imbecile Asylum, \$52,614.82; two insane asylums, \$314,686.09; Soldiers' Orphans' Home, \$30,342.62; State Soldiers' Home, \$44,857.10; maintenance of destitute insane, \$223,130.40.

Included in the totals for the two insane asylums is \$37,737.15 expended for new buildings and permanent improvement, and also included in the total for idiotic and imbecile asylum is \$20,846.75 for buildings. The item for hospitals and homes is an appropriation of \$700 each to 16 different private hospitals and homes in the State. The item for maintenance of destitute insane is an appropriation made by the last Legislature directly to the various counties for the care and maintenance of insane persons cared for by the counties because there was no room for them in the State asylums. They were allowed 50 cents per day per person so cared for, and the accounts covered a period of from one to four years back.

Kentucky.—There were 317 inmates in the almshouse on the first of the year; received during year, 240; number at close of year, 323.

During the year the Children's Free Hospital cared for 117 afflicted children; received at City Hospital during the year, 1,686 patients; remaining at close of fiscal year, 136.

The Kentucky Institute for the Blind received during the year 112 pupils in the white department; in the colored department, 24; total, 136. This institution was extensively remodeled, adapting it thoroughly for its special work.

In the Institute for Feeble-minded Children an increase was noted in the number of inmates over the previous year. Twenty were admitted during the year. At the close of the fiscal year there were 134 inmates.

The three insane asylums of the State showed at the beginning of the year 2,650 patients. Admissions during the year, 778; present at close of fiscal year, 2,705.

Louisiana.—The State appropriations for charitable institutions for the current fiscal year include the following: Blind, \$10,000 for one institution; deaf and dumb, \$18,000 for one institution; insane, \$100,000 for one institution; hospitals, \$108,000 for two institutions; Soldiers' Home, \$17,940; Lepers' Home, \$7,000.

Shakespeare Almshouse shelters 125 old people of both sexes; Faith Home for Aged Colored Widows, 18; Dames Hospitals, 29 paupers of both sexes; Memorial Home for Young Women, 34; Touro Infirmary, 29.

About 2,000 orphans are sheltered in sectarian asylums.

The Charity Hospital of New Orleans has a daily average of 622 inmates.

The State School for Deaf and Dumb in Baton Rouge takes care of 90 inmates.

The State Insane Asylum at Jackson contains about 1,200 insane persons, both male and female.

Maine.—Very little legislation was enacted in the last Legislature under the heading of charities and correction. Destitute children are well cared for in the State. The sick and injured are carefully provided for in the various city hospitals. The Maine General Hospital is in a prosperous condition, as are the other hospitals of the State, being supported in part by the State, but receiving also liberal donations from time to time.

The blind are cared for out of State institutions. Deaf-mutes are cared for in the main School for Deaf-mutes, which is a most excellent institution, situated in Portland, and supported by the State. Feeble-minded children are cared for in the Massachusetts School for Feeble-minded. The insane asylum is receiving increased attention every year by the Legislature and those interested in the care of this class of unfortunates. Its nominal capacity is 600; daily average number, 727.

The total receipts of the Maine General Hospital were, in 1898, \$58,209; total expenditures, \$51,404; number of beds, 146; daily average number of beds occupied, 91; number of in-patients, 1,335; number of out-patients, —; cost per in-patient per day, \$1.49.

Maryland.—Interest in hospital provision is growing in Maryland. The Railroad Young Men's Christian Association Hospital, opened Nov. 28, 1898, is now in operation at Hagerstown. A small charity hospital has been opened at Cambridge, the State contributing \$1,500. The sum of \$10,000 has also been given, with a comfortable house and 13 acres of ground, for the Hospital for Consumptives, situated about 6 miles from Baltimore. Provision has now been made for 50 insane women at the Springfield Insane Hospital, until recently used for male patients only. The Henry Watson Children's Aid Society takes special interest in wayward and dependent children.

Baltimore City Insane Hospital has a nominal capacity of 450; daily average number, 425; Hospital for the Insane, Catonsville: nominal capacity, 450; daily average number, 515; Mount Hope Retreat, Baltimore: nominal capacity, 570; daily average number, —; Sheppard Asylum, Baltimore: nominal capacity, 150; daily average number, 81.

Johns Hopkins Hospital, Baltimore, is a general hospital. Total receipts, \$200,964; total expenditures, \$200,964; number of beds, 320; daily average number of beds occupied, 241; number of in-patients, 3,633; number of out-patients, 64,273; cost per in-patient per day, \$1.55.

Massachusetts.—The State appropriations for charitable institutions, 1898, include the following: Blind, \$30,000; deaf and deaf-mutes, \$60,000; insane, including dipsomaniacs and epileptics, \$416,492.32; feeble-minded, \$48,000; indigent and neglected children, \$105,000; hospitals for consumptives and eye and ear, \$45,000; paupers, \$235,047.20; almshouses, \$180,230.

The Legislature of 1898 passed an act providing for the establishment of a State Board of Insanity, to which were transferred most of the powers and duties relating to the insane, hitherto belonging to the State Board of Lunacy and Charity. The last-named board has become the State Board of Charity, and has the supervision of the State sane poor and the State minor wards, together with all pauper statistical work, and the

investigation of settlements of both the sane and the insane poor.

The Legislature has also passed an act providing that "whenever a woman shall be committed to any insane hospital or asylum the magistrate committing her shall, unless she is accompanied by her father, husband, brother, or son, designate a woman who shall be an attendant or one of the attendants to accompany her to the hospital or asylum of commitment."

The new State Hospital for Epileptics, which was opened nearly a year ago, has already more than its complement of numbers; and the Legislature has appropriated money for the erection of a new building, which, when completed, will, with the other buildings, enable the trustees to provide for about 350 patients, and secure a better classification of the inmates than can be arranged for at present. The Legislature has also changed the age of commitment to this institution, so that, instead of providing for the care and treatment of adults only, the hospital now receives patients of fourteen years of age and upward.

The State Board of Charity has for two successive years recommended that all dependent children—that is, those who become a public charge because they are orphans or because their parents are too poor to maintain them—as well as juvenile offenders and neglected children, should be cared for, maintained, and controlled by the State, irrespective of the question of their local settlement. The effect of the law would be to provide better care and treatment, on the whole, for the children, and, while it would impose an additional burden on the Commonwealth, would relieve many of the small towns of considerable expense. A bill embodying this recommendation was recently presented to the Legislature, and was favorably reported on by the committee; but differences of opinion arose with regard to the wording of certain clauses of the bill, and the whole matter has been referred to the next general court.

The number of poor in State institutions, 1898, was 1,278; in local almshouses, 3,796; in families, 435; total, 5,509.

Of destitute children, State charges in families, there were 1,728; town charges in institutions, 584; town charges in families, 439; total, 2,751.

The number of deaf in institutions is 313; blind, 251.

In hospitals and asylums, according to the latest available report, there are 6,969 inmates; boarded out from hospitals, 106; in local almshouses, 1,214; town charges in families, 98; in school for feeble-minded, 602; total, 8,989. In addition to the above, there are 74 sane inmates of the Massachusetts Hospital for Epileptics and 190 inmates of the Massachusetts Hospital for Dipsomaniacs and Inebriates.

Boston Insane Hospital has a nominal capacity of 520; daily average number, 480; Danvers Lunatic Hospital: nominal capacity, 1,000; daily average number, 871; Hospital for Mental Diseases, Brookline: nominal capacity, 25; Medfield Insane Hospital: nominal capacity, —; Northampton Lunatic Hospital: nominal capacity, 550; daily average number, 544; Receptacle for the Insane, Ipswich: nominal capacity, —; State Almshouse, Tewksbury: nominal capacity, 1,300; daily average number, 1,292; Taunton Lunatic Hospital: nominal capacity, —; Westborough Insane Hospital: nominal capacity, 625; daily average number, 561; Worcester Insane Asylum: nominal capacity, 400; daily average number,

428; Worcester Insane Hospital: nominal capacity, 900; daily average number, 871.

Boston City Hospital is a general hospital. Total receipts, \$374,000; total expenditures, \$374,194; number of beds, 768; daily average number of beds occupied, 676; number of in-patients, 11,634; number of out-patients, 22,712; cost per in-patient per day, \$1.40.

The City Hospital, Worcester, is also a general hospital. Total receipts, \$72,727; total expenditures, \$64,229; number of beds, 140; daily average number of beds occupied, 95; number of in-patients, 2,218; number of out-patients, 2,205; cost per in-patient per day, \$1.55.

Michigan.—The sums expended by the State in behalf of charitable institutions for the two years ending June 30, 1898, were as follow: Blind, \$25,200; deaf and dumb, \$91,635.69; insane, \$88,430.15; dependent children, \$66,766.98; feeble-minded, \$75,503.20.

Two laws have been enacted by the Legislature of 1899 relating to charitable and correctional matters—namely, one prohibiting non-incorporated societies, associations, organizations, or persons from receiving, maintaining, or placing out minor children in homes; and one providing for State supervision of, and the reporting to the State Board of Corrections and Charities by all incorporated societies the whole or a part of the business of which is to receive, maintain, or place out minor children in homes.

There is now pending in the Legislature a bill providing for State care of defective dependent children. The statistical information here given is of the date of June 30, 1898, the close of the last biennial period of Michigan:

Poor in poorhouses number 6,065; destitute children, at the State Public School, 159; under control in homes, 1,304; total, 1,463; blind, in Michigan School for the Blind, 109; deaf-mutes, in Michigan School for Deaf, 398; feeble-minded children, in Michigan Home for Feeble-minded and Epileptic, 201.

The number of insane in State asylums is 4,217; in county homes, 145; in jails, 13; in private asylums, 226; total, 4,601.

The insane asylums and hospitals include the Asylum for Dangerous and Criminal Insane, Ionia: nominal capacity, 305; daily average number, 230; Asylum for the Insane, Kalamazoo: nominal capacity, 1,254; daily average number, 1,244; Eastern Michigan Asylum, Pontiac: nominal capacity, 950; daily average number, 1,059; Northern Michigan Asylum, Traverse City: nominal capacity, 1,000; daily average number, 994; St. Joseph's Retreat, Dearborn: nominal capacity, —.

Grace Hospital, Detroit, is a general hospital. Total receipts, \$36,232; total expenditures, \$36,347; number of beds, 128; daily average number of beds occupied, 56; number of in-patients, 975; number of out-patients, 2,964; cost per in-patient per day, \$1.76.

Minnesota.—The sums expended by the State in behalf of charitable institutions for the year ending July 31, 1899, were as follow: Blind, \$21,300; deaf and dumb, \$49,400; insane, \$541,400; dependent children, \$37,581.75; for feeble-minded, \$105,000; for other asylums, \$140,000; for crippled and deformed children, \$4,000.

The most important legislation in the field of charity enacted during the recent session of the Legislature was the provision made for additional care of the chronic insane. Two State asylums were authorized, each to be located on a large farm, each to have two buildings with a capacity of at least 100 inmates, the cost of construction

and equipment for each building not to exceed \$31,250. This legislation was a compromise between the advocates of the State hospitals and the advocates of county asylums similar to those existing in Wisconsin.

There is at present an overcrowding in each of the three Minnesota hospitals, although a detached ward has recently been completed, increasing the capacity at Fergus Falls by 200. A bill providing for a detention ward for the insane in the hospitals of the three largest cities was favorably considered, and came near passing. By a new law the superintendent and the secretary of the board of trustees for the State hospitals for insane now have a right to discharge patients from the three respective hospitals.

The deportation of nonresident insane has been successful, and the Legislature increased the appropriation for the execution of that law.

The State Board of Corrections and Charities is made responsible for the execution of the new law to restrict the importation of dependent children. It is not the purpose of this law to prohibit such importation, but to compel importing societies to conform to the same rules that are observed by Minnesota institutions and societies in investigating the homes and supervising the children whom they place. The age of children over whom the child-placing societies may acquire absolute guardianship has been increased from two to ten years.

The probate courts of Minnesota may now give the entire guardianship of children to volunteer institutions which have the approval of the State Board of Corrections and Charities, but this does not involve any payment on the part of the State to the institutions thus acquiring guardianship.

Trauant officers may be appointed by the school boards.

On nomination of the State Board of Corrections and Charities the district judges are to appoint probation officers for a period of two years. The probation law is modeled after the Massachusetts law, except that it applies simply to juveniles; and, after sentence is pronounced, it may be suspended pending satisfactory conduct instead of being postponed, as in Massachusetts.

District poorhouses may now be established in counties having a joint population of at least 35,000, the property and equipment to be paid by the interested counties in proportion to their assessed valuation. The poorhouses are to be managed by the chairmen of the boards of commissioners in the counties interested, and payment is to be made in proportion to the number of days' board furnished inmates sent by the respective counties.

The State Board of Corrections and Charities was given power to condemn lockups analogous to power which it has had for many years to condemn county jails. The condition of lockups has greatly improved since the passage of a law in 1895 obliging towns and cities to obtain the approval of the State Board of Corrections and Charities before lockups can be erected or extensively repaired.

The Odd Fellows are erecting a widows' and orphans' home at Northfield, Minn. This is the first orphanage established in a number of years.

The poor in poorhouses number 495; destitute children in State Public School, 233; sick and injured in hospitals, 898; blind in School for Blind, 70; deaf-mutes in School for Deaf, 233; feeble-minded children, 643.

There are three State insane hospitals, with over 3,000 inmates; none in jails or poorhouses.

Fergus Falls State Hospital for the Insane has a nominal capacity of 1,200; daily average number, 1,011; Rochester State Hospital: nominal capacity, 1,000; daily average number, 1,103; St. Peter State Hospital: nominal capacity, 650; daily average number, 977.

Mississippi.—No official statement procurable. It is learned from unofficial sources that the East Mississippi Insane Asylum, Meridian, has a nominal capacity of 300; daily average number, 260; also that the State Lunatic Asylum, Hinds County, has a nominal capacity of 825; daily average number, 825.

Missouri.—The Missouri General Assembly of 1899 passed a bill to establish an insane asylum in southeast Missouri with an appropriation of \$150,000. This will make the fifth institution for the care of the insane in this State. A bill was also passed establishing a colony for feeble-minded and epileptics. At least it had met the approval of the Senate at the latest report.

The cornerstone of the Provident Association Building, to cost \$70,000, was laid a few months ago. During the five years of Dr. Finney's administration the methods and management of this charity have been revolutionized, modern ideas and appliances have been introduced, new industries added, until now the Provident Association takes front rank in quality and quantity of organized charity work in this country. Investigation precedes relief. During the last year 12,608 cases were investigated. Having no municipal outdoor relief, about 75 per cent. of all that is given comes from the St. Louis Provident Association.

Poor in poorhouses number 4,000, including St. Louis Poorhouse. Destitute children, 2,500 in private institutions; 400 a year cared for by St. Ann's, Bethesda, and Colored Orphans' Home. Sick and injured, 215 soldiers in the State Federal and Confederate Homes at St. James and Higginsville; 823 in the Female and City Hospitals at St. Louis; 43,963 cases treated at the City Dispensary in St. Louis in 1898. Blind in the State, 2,456—about one half of these under the school age, twenty-four years; in the State Blind School in St. Louis, 106 pupils. Deaf-mutes in the State, 2,003; 350 pupils in the State School at Fulton. Feeble-minded children in the State, 5,000; 1,600 within the limit of the school age.

There are 3,600 inmates in the asylums at St. Joseph, Nevada, St. Louis, Fulton, and on the poor farms.

The insane asylums and hospitals include St. Louis Insane Asylum: nominal capacity, 300; daily average number, 516; State Lunatic Asylum, No. 2, St. Joseph: nominal capacity, —; State Lunatic Asylum, No. 3, Nevada: nominal capacity, 760; daily average number, 628.

Kansas City Hospital is a general hospital. Total receipts, \$35,000; total expenditures, \$18,261; number of beds, 240; daily average number of beds occupied, 145; number of in-patients, 1,842; number of out-patients, —; cost per in-patient per day, 35 cents.

Montana.—The most important legislation of the last Legislature in the field of charities and correction was the establishment of a home for feeble-minded and a law permitting children to be taken from inhuman parents. A home for children until they can be adopted by worthy people has been established.

The poor in poorhouses are pretty well cared for in most counties; destitute children are cared for in Orphans' Home; sick and injured are cared for in hospitals. For blind and deaf-mutes there is one school.

The insane are cared for at State expense in an excellent manner at Warm Springs, Deer Lodge County, Mont. Its nominal capacity is 450; daily average number, 350.

Nebraska.—The State appropriations for charitable institutions for the two years ending November, 1898, were as follow: Blind, \$45,775; deaf and dumb, \$55,250; insane, \$366,895; feeble-minded youth, \$77,400; Soldiers' Home, \$93,350, with 325 inmates; Home for Friendless, \$31,500.

Among bills passed by the last Legislature was one to provide for the control and maintenance of the Home for the Friendless as a State institution. A bill was introduced to create a State board of charities. The bill was framed so as to be in harmony with the State Constitution. So much sympathy was expressed that for a considerable time the friends of the bill expected it to carry. It failed, however; but the friends are determined to succeed, and are confident this measure will be carried at the next Legislature, two years hence.

The aged poor are largely provided for in county almshouses, and the number has greatly increased of late years in large centers of population because of the increase in the number of the insane. Seven old persons are now being provided for by the State in the Home for the Friendless.

Most of the dependent children of the State are provided for by private associations. One State institution, the Home for the Friendless, has 38 children. This is also a placing-out agency, and children are only kept temporarily. Some of the larger counties have the care of a few dependent children.

No provision is made for sick and injured by the State. There is only one county hospital, and it is located at Omaha. Most of the hospitals are supported by churches.

There is one State institution for the blind, with 79 inmates.

There is one institution for deaf-mutes. It has 149 inmates. Oral and manual methods of teaching are employed.

There is one institution for feeble-minded, with 216 inmates. Many appeals are made for the admittance of others, who are refused from lack of accommodations. A good many of these are provided for in county houses, and others are under private care.

There are three hospitals for the insane, one of them for incurables. The total number of patients, according to the last report, was 1,121. It is difficult to estimate the number of patients in county houses. There are 90 in Douglas County Hospital alone. There are also two soldiers' and sailors' homes, with a total of 254 inmates.

The insane asylums and hospitals include the Hospital for Chronic Insane, Hastings: nominal capacity, 650; daily average number, 600; Hospital for the Insane, Lincoln: nominal capacity, 350; daily average number, 350; Norfolk Hospital for the Insane, Norfolk: nominal capacity, 208; daily average number, 204.

Nevada.—The Secretary of State reports that the only appropriations for public charities made each year by the State of Nevada are: For care and support of the indigent insane, \$35,500; for the support of the State Orphans' Home, \$14,700. The expenditures for 1898 for the former amounted to \$32,058.84; for the latter, \$13,229.31. The nominal capacity of the Hospital for Mental Diseases, Reno, is 225; daily average number, 197.

New Hampshire.—The Secretary of State reports an expenditure of \$42,742 for charitable institutions for the year ending May, 1899. This

amount includes the following items: Blind, \$3,994; deaf and dumb, \$4,510; insane, \$24,745; feeble-minded, \$1,094; soldiers' homes, \$8,399.

Important among the changes made by the Legislature of 1898-'99 was that relating to the beneficiaries of the Deaf and Dumb, Blind, and Feeble-minded fund. New Hampshire gives \$10,000 annually for the support of these defectives in institutions outside of the State. The law, as it now stands, places the nomination of these beneficiaries in the hands of the Board of Charities, upon whose recommendation only the Governor and Council can appoint children to fill the vacancies. A joint resolution authorizes the Governor and Council to appoint a commission, to work with one appointed by the State Conference of Charities and Corrections, to investigate the jail systems of the State and the State control of the insane as compared with the county care of the indigent insane, and to report to the next Legislature. Appropriations were granted to the State Insane Asylum, \$50,000; Soldiers' Home, \$20,000 annually for two years. Towns and cities are privileged to expend \$5,000 in the establishment of a free bed in any hospital for the benefit of the cities' sick poor, or to spend \$300 annually for a yearly bed in such an institution.

The most important new movement to be recorded is the establishment, on a permanent basis, of a New Hampshire Conference of Charities and Corrections. The State Board of Charities inaugurated this movement, and the first meeting was held at Concord, Feb. 21, 1899. The outcome of this meeting was the incorporation of the conference, with Judge H. E. Burnham, Manchester, president; President William J. Tucker, of Dartmouth College, first vice-president; John M. Gile, M. D., Hanover, secretary; Mrs. Lillian Streeter, Concord, treasurer.

The results of the first conference were increased appropriations for the insane asylum and the appointment of a committee authorized by law to investigate our jail systems and the State care of the indigent insane. The Sociological Committee of the Federation of Women's Clubs aided in getting up this conference, while the Concord Woman's Club paid all the bills thereof.

A magnificent new operating room, known as the Wells Building, has been given to the Elliot Hospital, in Manchester, by Mrs. Charles Wells. The Odd Fellows are soon to establish an orphans' home.

There are ten counties, and the amounts disbursed by their officials during the year ending Dec. 31, 1898, included \$403,155 for support of paupers. The eleven cities of the State paid during the same period, for support of poor, including aid to hospitals, \$105,207. The 224 towns, which comprise one half of the aggregate population, undoubtedly paid in 1898 for support of poor at least \$50,000. (Private charity helped to maintain 5 homes for the aged, 3 orphans' homes, 10 hospitals, 1 mercy home for females, by contributions estimated at \$100,000. Fraternal and benevolent organizations dispensed in charity not less than \$75,000.)

Taking into account contributions from all sources, it is estimated that at least \$1,000,000 is contributed annually in the State for charitable purposes.

The poor in its poorhouses include, in almshouses, 692; in families (figures not procurable); county charges in almshouses, 83; in orphan asylums, 327; placed out in families, 201.

Blind children are placed in institutions outside the State. Thirteen are now provided for.

Deaf and dumb children are placed in institutions of other States. There are 25 now provided for.

Insane and feeble-minded in State Asylum, 431; in county almshouses, 522; in Massachusetts School for Feeble-minded, 4; total, 957.

New Jersey.—The sum of \$41,000 has been appropriated for the necessary cottages for the State Village for Epileptics and the administration of the work. The sum of \$15,000 was appropriated the previous year for the purchase of land.

An act has been passed creating a State Board of Children's Guardians, being a nonpartisan board of seven persons, of whom two are women, who are appointed by the Governor and serve without compensation. All children who are or become public charges are the wards of this board. The children are to be placed in families

vania, \$8,881; blind children, placed in New York and Pennsylvania institutions, \$13,355; imbeciles, placed in Connecticut school, \$394; deaf-mute children, in New Jersey School for Deaf-mutes, \$40,096; insane, at State Hospital, Morris Plains, \$323,080; at State Hospital, Trenton, \$252,359; county almshouses, \$204,714; Home for Disabled Soldiers, \$20,500. The total number of defectives is shown to be 5,290, maintained at a cost of \$702,820. The total number of dependents is given as 9,139, maintained at a cost of \$509,853.

New Mexico. No official statement procurable. It is learned from unofficial sources that the number of destitute children in the Territory is about 200; sick and injured in hospitals, about 125; deaf-mutes, about 50; insane, 75.

New York.—The past year has been noticeable for the number and importance of the bills introduced in the Legislature relating to chari-

STATE CUSTODIAL ASYLUM (MAIN BUILDINGS), NEWARK, NEW YORK.

of the faith of their parents, with or without the payment of board. The expense of the maintenance falls upon the counties, and the expense of the administration upon the State.

It is estimated that there are nearly 2,000 poor in poorhouses in the State.

Destitute children are kept in almshouses and boarded in institutions, etc. They number about 500. (There are also about 3,000 children in private institutions.)

The State maintains no hospitals. The counties maintain their sick poor in the almshouses when necessary. The city hospitals are supported mainly by voluntary subscriptions, with a small city appropriation in some cases.

The number of blind in the State institutions is 43; deaf-mutes, 141; feeble-minded women and children, 307; insane, 3,755. It is estimated by the managers of the Epileptic Village that there are about 2,000 epileptics in the State.

From the latest available detailed report of New Jersey State charities, it is learned that the following expenditures were made for State institutions during a recent year: Institution at Vineland for feeble-minded women and girls, \$20,000; feeble-minded children, placed in Pennsyl-

ties. Among the more important bills which passed both houses are the following:

A bill conferring upon the city of New York authority to make appropriations to private charitable institutions, and to increase or decrease the amounts which have been fixed by the Legislature in the past to be appropriated annually to specified institutions. This law confers practically unlimited "home rule" upon this city in this particular, and will put an end to the constant legislation authorizing the city to appropriate specific amounts to particular institutions.

A law repealing the special law under which Montgomery County has cared for its poor by the contract system. This plan had given rise to great abuses in that county, and was forbidden by law in all other portions of the State.

A bill providing that officers and employees of State charitable institutions shall be classified into grades, and their salaries and wages fixed by the president of the State Board of Charities and the Comptroller, subject to the approval in writing of the Governor.

A bill requiring plans for all new State institutions and all alterations and additions to ex-

isting State institutions to receive the approval of the State Board of Charities.

A bill authorizing cities of the first class to establish hospitals for consumptives outside of their corporate limits.

None of these measures were opposed by any of the prominent charitable societies or institutions of the State; and all of them are therefore presumably in line with the enlightened charitable sentiment of the community.

A bill for the establishment of a State hospital in the Adirondack mountains for the treatment of incipient pulmonary tuberculosis, which was championed by the medical societies of the State and by the leading charitable organizations in New York city, failed to pass.

Among the bills introduced which were opposed either by the State Board of Charities or by the leading charitable societies of New York city, or both, and which failed of passage, were the following:

A bill to re-establish the free distribution of coal to the poor by the city of New York. The defeat of this bill in two successive years may justly be regarded as a signal triumph for charity-organization principles.

A bill for the creation of a local board of public charities in the borough of Queens, New York city, and re-establishing a system of public outdoor relief in that borough. The purpose of this bill was to restore the borough of Queens, so far as the relief of the poor is concerned, to its position prior to consolidation with New York city.

The so-called destitute mothers' bill, authorizing the payment of public funds in New York city to widows for the support of their children instead of committing them to institutions. This was the third year in which this project had come before the Legislature, and on every occasion it has been defeated by the united efforts of the general charitable agencies of the city.

In New York city the system of caring for destitute children is through public support in private institutions. In the revised Constitution, taking effect Jan. 1, 1895, the State Board of Charities is directed to establish rules and regulations concerning the reception and retention of such inmates, and public money is to be

paid only for the support of inmates received and retained under such rules. The rules established by the State Board of Charities led to a decrease in the number of juvenile dependents throughout the State, but more particularly in New York city, where the number decreased from 16,858, Oct. 1, 1894, to 15,745, Oct. 1, 1897. During 1898, however, there was a considerable increase in the number of children who became public charges. A special committee of the State Board of Charities is now investigating the cause of this increase.

Several advances have been made in the care of destitute children. Perhaps the most important of these is the establishment of a system of co-operation between the Charity Organization Society and the Department of Public Charities as to the commitment of destitute children as public charges. An agent of the Charity Organization Society visits the office of the Charities Department twice daily, and considers all applications for the commitment of destitute children to institutions. Whenever it is found that the parents are of good character and should be enabled to keep their children at home, the Charity Organization Society takes the case under its charge and provides such material relief—groceries, rent, fuel, clothing, etc.—as may be needed. The Charity Organization Society is strongly supported in this work by the Society of St. Vincent de Paul and the United Hebrew Charities. From July 1, 1898, to May 1, 1899, of 1,126 children whose commitment had been applied for, 327 were taken under the charge of the Charity Organization Society.

In 156 cases the commitment had already been decided upon, and was prevented by the direct intervention and offer of assistance by the Charity Organization Society. It is certain that most of the remaining 171 cases would have been committed had it not been for the newly established system of co-operation. A similar plan is being put in operation in Brooklyn by the Brooklyn Children's Aid Society and the Bureau of Charities.

There has also been an increase in the efforts to place out children in families. Most significant is the establishment of the Catholic Home

STATE INSTITUTIONS AND INSTITUTIONS UNDER STATE CONTROL.

INSTITUTIONS.	Capacity.	Cost of buildings.	Total real estate.	Total personal estate.	Total from the State (1897).	Total receipts, including cash on hand at beginning of year (1897).	Total expenditures (1897).	Average number inmates (1897).
Institution for the Blind.....	250	\$234,956.58	\$384,956.58	\$373,080.00	\$40,574.58	\$77,166.89	\$69,508.85	190
State School for the Blind....	120	388,611.00	355,000.00	18,700.07	40,499.21	47,351.88	45,337.98	115
Institution for Instruction of Deaf and Dumb.....	500	420,000.00	506,000.00	175,928.82	60,108.08	159,656.20	148,954.88	401
Institution for Feeble-minded Children.....	545	357,385.05	423,578.10	43,040.80	90,065.72	105,519.31	103,363.55	509
Custodial Asylum for Feeble-minded Women.....	391	150,600.00	163,475.00	26,910.88	55,169.59	58,473.10	58,034.77	392
Thomas Asylum for Orphan and Indian Children.....	100	25,000.00	25,000.00	9,328.17	24,675.55	27,008.96	24,886.04	104
House of Refuge.....	1,000	500,000.00	535,000.00	47,366.98	167,333.32	179,525.01	175,582.22	790
The State Industrial School.	900	525,108.12	529,308.12	141,579.68	211,718.76	214,459.44	210,364.33	857
The House of Refuge for Women.....	300	265,453.51	294,448.74	23,965.91	70,018.25	77,520.87	74,650.92	306
Western House of Refuge for Women.....	150	119,642.25	131,492.25	11,427.99	39,700.00	48,541.75	34,892.48	115
Reformatory for Women....	250	165,000.00	175,000.00	.....	.....	.....	.....	.....
State Soldiers' and Sailors' Home.....	1,200	302,765.00	331,125.00	55,749.17	197,466.61	213,292.31	197,464.95	1,219
Craig Colony.....	300	213,547.43	213,547.43	56,861.78	110,840.21	137,126.01	127,335.73	175
Rome State Custodial Asylum.....	350	246,174.18	281,224.18	30,060.53	97,660.52	109,961.69	104,080.31	325
State Women's Relief Corps Home.....	52	75,735.77	81,735.77	6,041.73	82,588.07	94,565.06	93,661.40	39
Total.....	6,408	\$3,939,958.89	\$4,430,891.17	\$1,020,062.51	\$1,288,409.02	\$1,550,153.48	\$1,468,067.46	.....

AMOUNT EXPENDED FOR SUPPORT AND RELIEF DURING THE YEAR.

NAME.	For support in almshouse institutions (1897).	For outdoor relief (1897).	Total (1897).
Department of Public Charities, New York city.....	†\$752,556.82	†\$32,782.00	†\$785,338.82
Alms-house.....	†1,206,879.66		1,206,879.66
Bellevue Hospital and Dependencies *.....			
City Hospital.....	166,825.35		166,825.35
Colored Home and Hospital *.....			
Infants' Hospital *.....			
Metropolitan Hospital.....	89,680.17		89,680.17
Randall's Island Asylums and Schools *.....			
Outdoor Poor Department.....		\$ 42,218.00	42,218.00
Hempstead Town Almshouse.....	6,572.38	6,615.60	12,987.98
Kings County (Brooklyn City) Almshouse.....	254,117.32		254,117.32
Kingston City Almshouse.....	20,419.32	9,149.76	29,569.08
Newburg City and Town Almshouse.....	12,799.23	10,424.06	23,223.29
Oswego City Almshouse.....	5,537.81	10,665.48	16,203.29
Oyster Bay and North Hempstead Town Almshouse.....			
Poughkeepsie City Almshouse.....	12,581.21	5,732.21	18,313.42
Total.....	\$2,526,760.27	\$117,807.13	\$2,644,567.40

* Expenditures included under Department of Public Charities, New York city.

† For expenditures not otherwise specified.

‡ Of this amount, \$1,050,000 was for repairs and improvements of buildings and grounds.

§ Donations to poor adult blind, \$29,986; coal supplied to families, \$12,238.

ESTIMATED AGGREGATE VALUE OF THE PROPERTY OF THE INSTITUTIONS AND SOCIETIES UNDER THE SUPERVISION OF THE BOARD, AND THEIR INDEBTEDNESS, AT THE CLOSE OF THE YEAR ENDING SEPT. 30, 1897.

INSTITUTIONS.	Real estate.	Personal property.	Total.	INDEBTEDNESS.			Total receipts.	Total expenditures.
				Real.	Personal.	Total.		
State institutions.....	\$4,430,891.17	\$1,030,062.51	\$5,450,953.68		\$2,339.57	\$2,339.57	\$1,550,153.48	\$1,468,067.46
County almshouses.....	2,993,930.00		2,993,930.00				1,698,735.17	*1,698,735.17
City and town almshouse institutions.....	6,842,000.00		6,842,000.00				2,644,376.40	†2,644,376.40
Charity organization and kindred societies.....	296,304.15	47,877.86	346,082.01	\$18,060.00		18,060.00	173,037.47	162,069.18
Day nurseries.....	238,143.57	33,272.89	271,416.46	23,725.00		23,725.00	113,490.81	91,254.44
Dispensaries.....	787,966.56	836,016.61	1,613,983.17	96,500.00	14,118.53	110,618.53	274,228.33	224,904.15
Eleemosynary educational institutions.....	707,656.59	142,912.48	850,569.07	89,550.00	22,501.63	112,051.63	148,040.77	141,147.32
Employment by or through charity, societies for.....	28,615.19	142,602.57	171,217.76				97,559.77	86,277.06
Fresh-air charities.....	352,689.74	126,346.22	479,035.96	6,860.00	6,960.83	13,820.83	167,507.69	141,536.73
General outdoor relief, societies for.....	811,648.60	1,462,895.89	2,274,544.49	57,000.00	10,723.53	67,723.53	1,056,842.36	845,636.89
Homes for the aged.....	14,215,236.55	2,630,486.82	17,845,723.37	291,546.35	49,026.35	340,572.35	1,963,949.07	1,601,675.39
Homes for the blind.....	90,000.00	154,400.00	244,400.00	23,773.57		23,773.57	46,617.66	39,970.11
Homes for children.....	18,834,558.19	6,774,351.71	*25,608,909.90	2,236,685.95	445,351.03	2,682,036.98	*5,999,050.69	†5,397,211.37
Homes for discharged prisoners.....	71,300.00	90,697.78	161,997.78	24,000.00		24,000.00	30,493.27	28,013.61
Homes for feeble-minded; Homes, temporary, for men and boys.....	117,067.77	7,272.24	124,340.01	56,760.00	9,439.00	66,199.00	67,531.87	66,361.40
Homes, temporary, for women and children.....	176,221.25	46,898.20	223,119.45	23,000.00	975.93	23,975.93	21,632.57	18,273.17
Homes, temporary, for women and girls.....	155,367.00	21,965.00	177,332.00	7,000.00	18,016.82	25,016.82	96,980.59	91,319.84
Homes and hospitals for consumptives.....	477,000.00	106,000.00	583,000.00	34,100.00	18,039.22	52,139.22	80,871.73	76,884.25
Homes and hospitals for convalescents.....	41,500.00	11,300.00	52,700.00	1,475.00		1,475.00	9,038.30	8,345.95
Homes and hospitals for epileptics.....	120,000.00		*120,000.00	40,360.00	9,477.11	49,837.11	*61,814.41	59,894.70
Homes and hospitals for incurables.....	1,054,968.14	556,892.46	1,611,855.60	95,700.00	4,327.57	100,027.57	323,994.26	264,069.37
Homes and hospitals for inebriates.....	372,377.70	116,080.00	488,307.70		8,612.13	8,612.13	111,915.62	100,533.22
Homes and missions for immigrants.....	288,500.00	2,153,100.00	2,441,600.00	54,684.35	7,016.87	61,701.22	174,474.97	156,296.57
Hospitals.....	20,737,627.77	8,340,423.78	29,068,051.55	2,841,160.35	383,136.96	3,224,297.31	5,312,737.64	4,867,985.14
Humane societies.....	1,400.00	5,300.00	6,700.00				10,713.09	10,202.07
Legal aid for the poor, societies for.....		19,715.00	19,715.00				14,013.64	10,125.95
Placing out children in families, societies for.....							1,010.12	944.64
Reformatories for children.....	145,725.28	19,852.85	*165,578.13				*163,923.04	144,389.49
Reformatories for women and girls.....	1,575,300.00	42,872.24	*1,618,172.24	186,630.22	92,420.59	279,050.81	*400,824.11	324,302.45
Relief for sick poor, societies for.....	281,350.00	54,258.00	335,608.00	137,750.00	806.00	138,556.00	108,575.54	95,741.74
Schools for blind †.....	1,231,523.98	3,167.87	*1,234,691.85	314,740.00	36,322.05	351,062.05	*490,290.86	471,538.25
Schools for deaf.....								
Total.....	77,455,564.20	25,956,765.78	103,412,329.98	6,671,030.44	1,134,501.72	7,805,532.16	23,129,345.30	21,340,093.48

* Exclusive of amounts reported in State institutions.

† Finances and statistics included in State institutions.

Bureau for Dependent Children, the object of which is to provide homes in families for destitute Catholic children. The State Charities Aid Association has also extended the work already carried on by several of its county committees in placing children in families, and now has two agents whose time is devoted almost wholly to this work. The Children's Aid Society has also undertaken the placing out of children in New York State to a larger extent than formerly.

The Training School in Practical Philanthropy, conducted by the Charity Organization Society during the summer of 1898, was extremely successful. An interesting account of the school is given in the Review of Reviews for February, 1899. A similar school will be conducted during the summer of 1899.

In Buffalo, through the active efforts of the Charity Organization Society, the city appropriation for outdoor relief has been reduced from \$118,585 to \$85,900.

There has been a steady and satisfactory development of the system of State care and maintenance of the insane. The appropriation for the support of the insane, as fixed by the Legislature of 1899, is \$4,795,100, as compared with \$4,902,201.37 in 1898. A second homœopathic hospital for the insane has been opened during the year, with accommodations for 300 patients. Additional accommodations for about 1,200 patients have been provided during the year, and buildings to accommodate 2,200 patients are now in course of erection at Central Islip. When all the buildings now in course of construction are finished, the overcrowding, which was extremely serious when the New York and Kings County asylums became a part of the State system, will be relieved.

The census of charitable institutions in the State of New York on Oct. 1, 1898, as detailed below, is given at the close of the report of Homer Folks, State corresponding secretary, from which the above statements are taken. As compared with Oct. 1, 1897, there is an increase of 2,357 inmates of charitable institutions, and of 703 in hospitals for the insane.

The number of aged and friendless persons cared for by the State is reported as 6,627; almshouse inmates, 11,788; blind, 723; deaf, 1,721; dependent children, 31,090; disabled soldiers and sailors, 1,354; epileptics in almshouses, 193; epileptics in Craig colony, 322; hospital patients, 9,622; idiotic and feeble-minded in State institutions, 1,288; insane in private asylums, 855; insane in State hospitals, 21,531.

The insane asylums and hospitals include: State Emigrant Insane Asylum, Ward's island: nominal capacity, —; daily average number, —; Binghamton State Hospital: nominal capacity, 1,300; daily average number, 1,249; Bloomingdale, White Plains: nominal capacity, 375; daily average number, 318; Buffalo State Hospital for the Insane: nominal capacity, 1,631; daily average number, 1,519; Hudson River State Hospital, Poughkeepsie: nominal capacity, 1,970; daily average number, 1,813; Long Island Home (Limited), Amityville: nominal capacity, 114; daily average number, 95; Long Island State Hospital: nominal capacity, 2,075; daily average number, —; Manhattan State Hospital: nominal capacity, 5,619; daily average number, 6,713; Matteawan State Hospital, Fishkill-on-the-Hudson: nominal capacity, 550; daily average number, 662; Middletown State Homœopathic Hospital: nominal capacity, 1,068; daily average number, 1,218; Rochester State Hospital: nominal capacity, 462; daily average number, 553; Sanford

Hall, Flushing: nominal capacity, 36; daily average number, 29; Utica State Hospital: nominal capacity, 1,133; daily average number, 1,014; Willard State Hospital: nominal capacity, 2,270; daily average number, 2,256.

Buffalo General Hospital reports as follows: Total receipts, \$56,401; total expenditures, \$61,713; number of beds, 154; daily average number of beds occupied, 127; number of in-patients, 2,087; number of out-patients, 0000; cost per in-patient per day, \$1.30.

Other general hospitals are: The Presbyterian Hospital, New York city. Total receipts, \$82,736; total expenditures, \$167,323; number of beds, 330; daily average number of beds occupied, 178; number of in-patients, 3,048; out-patients, 20,105; cost per in-patient per day, \$2.48.

Roosevelt Hospital, New York city. Total receipts, \$139,957; total expenditures, \$163,469; number of beds, 223; daily average number of beds occupied, 161; number of in-patients, 3,134; number of out-patients, 25,738; cost per in-patient per day, \$1.95.

St. Luke's Hospital, New York city. Total receipts, \$143,837; total expenditures, \$165,309; number of beds, 300; daily average number of beds occupied, 225; number of in-patients, 2,656; number of out-patients, 3,741; cost per in-patient per day, \$1.77.

North Carolina.—According to the State reports, the appropriation for two years, 1897-'98, under the heading of deaf, dumb, and blind was \$227,500. For two insane asylums the appropriation given was \$190,900.

The principal changes made by the General Assembly of 1899 pertain to the insane. The whole body of the statutes as passed and amended in various years was codified, rearranged, simplified in the direction of less publicity in cases of inquisition for insanity, and all the institutions for the insane given one law instead of operating, as heretofore, under different acts.

Provision was made for the first time in this State for the licensing of private institutions for the insane; also for private homes for the feeble-minded, epileptics, inebriates, etc. License is to be issued by the Board of Public Charities, such institutions to be operated under rules and regulations of said board; to render reports Jan. 1 and July 1 of each year to the Board of Public Charities; and to be subject to its frequent inspections. License revokable before the Superior Court of Wake County (in which the capital is situated), for willful violation or neglect of said rules.

The Board of Charities now has inspecting and supervising power over all county institutions for said classes or municipal asylums, and also retains former privileges in regard to all State charitable institutions.

The institutions for the insane, deaf, blind, orphans, and veterans are all providing for an increase in numbers, are doing better work, and are more fully appreciated than ever before. The percentage of cures upon admissions has reached about 60 per cent. in the asylums for the white race. New buildings for schoolroom purposes, costing \$25,000 each, have been erected for the deaf-mutes and the blind at Morganton and Raleigh, and large improvements have been made to the Colored Deaf-mute and Blind Institution.

For dormitories \$5,000 additional was voted to the Deaf-mute School at Raleigh, and \$5,000 additional for improvements to the Soldiers' Home, and an increase of its annual appropriation from \$8,500 to \$10,000.

The Oxford Orphan Asylum contains: White, 214; colored, 134 (separate institutions).

STATE HOSPITAL FOR THE INSANE, COLUMBUS, OHIO.

The deaf and dumb and blind are taken care of at Raleigh, where there are 316 pupils; deaf and dumb, Morganton, 200.

At the time of the last report the State was caring in their own institutions for insane: At the State Hospital, Raleigh, white, 413; State Hospital, Morganton, white, 906; Goldsboro, colored, 430; total, 1,749.

The above returns do not include several hundred insane and feeble-minded in county homes. Criminals deemed dangerously insane—i. e., persons committing or attempting to commit homicide, arson, and the like while insane and of previous good character—are now taken to special divisions in the State hospitals, instead of to the Penitentiary, as heretofore.

It is difficult to arrive at the correct number of persons living upon public alms, as all the counties are not provided with homes for the aged and infirm, some preferring to pay monthly sums to the poor or their friends. But, as far as can be ascertained from the returns made by the county visitors, the number in the homes may be estimated at 1,550; and those provided for wholly or in part outside of the homes, formerly "poorhouses," may be estimated at 3,625.

The State provides for 105 Confederate veterans in the Soldiers' Home, and expends over \$100,000 annually in pensions to her veterans in addition.

North Dakota.—The State appropriations for charitable institutions for fifteen months ending July, 1898, included the following: Deaf and dumb, \$19,250, with 50 pupils in one institution; insane, \$109,750, with 353 patients in one institution; Soldiers' Home, \$12,200, with 29 inmates.

There is no board of charities and corrections in this State. The buildings occupied by the School for the Deaf and the Hospital for Insane are inadequate in accommodation. Additional appropriations have been asked for.

Ohio.—The poor laws were codified by the Legislature at its last session. As at present arranged, they have met with general approval, and continue to grow in favor. The results, briefly stated, show a better care for the poor, indoor and outdoor, and a large reduction in the amount expended for outdoor relief. Two hundred thousand dollars is a conservative estimate of the annual saving under the new system in the State.

A united effort on the part of the Board of State Charities, infirmary officials, and boards of county visitors will be made to secure adequate and early appropriations for carrying into effect the requirement of the new law relating to the care of the insane and epileptic. On and after June 1, 1900, it becomes unlawful to receive or maintain these people in the county infirmaries.

The new State Hospital at Massillon was opened for the reception of inmates Sept. 6, 1898, and now has a population of about 400. New cottages are being built, and by the close of the present year (1899) accommodations will be ready for about 800 inmates.

The Board of State Charities has renewed its recommendation, frequently made heretofore, for some provision for crippled and deformed children. A census recently taken by the secretary of the board shows a large number of such children in county homes and infirmaries. A small number of these children have received treatment either in the children's hospitals or in the several homes. The general success attending their treatment has been sufficient to demonstrate the wisdom of providing in some way for the earliest and best treatment possible for this class of defectives.

Another matter that is crowding attention is the total lack of any provision for discharged prisoners. Nothing tangible has been accomplished up to this time; but a public sentiment is growing and forming on this question, and there are those who are not without hope that something will be done for these men in the near future.

The present condition of the State charitable institutions is highly satisfactory.

The following statement shows the distribution of destitutes and defectives:

The poor in poorhouses or county infirmaries (89 in number), 8,933 inmates.

Destitute children are provided for: In children's homes (42 homes reporting), 2,017 inmates; Ohio Soldiers' and Sailors' Orphans' Home, 922; House of Refuge, Cincinnati, 445.

Sick and injured are cared for in the Ohio Soldiers' and Sailors' Home, 1,202 inmates.

The blind are kept in the Institution for the Blind, 298 pupils; deaf-mutes in the Institution for the Deaf and Dumb, 470 pupils; feeble-minded

children in the Institution for Feeble-minded Youth, 1,050 inmates; insane in the institutions for insane (State hospitals, 7), 6,947 inmates; epileptics in the Ohio Hospital for Epileptics, 822 inmates.

The insane asylums and hospitals include the Athens State Hospital: nominal capacity, 813; daily average number, 819; Cincinnati Sanatorium, College Hill: nominal capacity, 80; daily average number, 78; Cleveland State Hospital: nominal capacity, 950; daily average number, 1,090; Columbus State Hospital: nominal capacity, 1,350; daily average number, 1,217; Dayton State Hospital: nominal capacity, 800; daily average number, 839; Longview Hospital, Carthage: nominal capacity, 1,000; daily average number, 1,059; Toledo State Hospital: nominal capacity, 1,190; daily average number, 1,276.

Oklahoma.—The Territory, outside of its colleges and university, has no public institutions proper, the insane, blind, and deaf-mutes being cared for by contract. The insane are sent to a private asylum at Norman, owned and managed by the Oklahoma Sanitarium Company. The deaf-mutes are sent to an institution located at Guthrie, and owned by private parties. There are 220 insane in the asylum. The owners of the asylum have added to their buildings and equipments during the past year. A new hospital has just been completed, and many cottages are under way. Owing to the small appropriation, only 25 deaf-mutes were cared for during the year; but the Legislature more than doubled the appropriation, and about 60 will be in the institute during the coming year. There are, all told, 90 deaf-mutes in the Territory. A special tax for the education of the blind was levied by the Legislature, and a contract has been made by the Governor for their care and education, but the institution is not yet opened. An orphan asylum has been established at Oklahoma City by private subscription, though the number of orphans in the Territory are comparatively few, and homes can readily be found for them. Hospitals are about to be established at Guthrie and Oklahoma City by Sisters of Mercy. The number of real paupers in the Territory is very small, and not a single county has as yet felt the need of a poorhouse.

Oregon.—The State appropriation for charitable institutions, according to the latest available State report, included the following items: Blind, \$7,625.58, with 28 pupils; deaf and dumb, \$25,000, with 54 pupils; insane, \$346,000; non-resident poor, \$8,000.

No legislation in the field of charities and corrections was enacted at the last session of the Legislature. A bill was introduced which would have been a great advance from the former method of control of the State Asylum for the Insane. By it the management was vested in a board of trustees, whose pay was not to exceed \$100 each per annum. Patients were protected by having the privilege of sending weekly a sealed letter to the trustees. The superintendent was required to report to the trustees an estimate for supplies for the succeeding six months, upon which bids were to be received after advertisement. The official title was to be hospital in place of asylum. The provisions of the proposed law were otherwise similar to the usual law for control of hospitals for the insane.

The aged and infirm (sane) poor are kept at county poor farms in 15 counties. Contracts for boarding paupers are let to individuals in 15 counties.

The majority of dependent children are cared

for by private charities. A few are in almshouses. Only one society receives State aid without being under State supervision, and this places its inmates in homes as soon as possible.

The sick and injured are cared for in hospitals, none of which receive State aid.

Blind dependents receive support and education at the Oregon Institute for the Blind; deaf-mutes are taken care of at the Oregon Deaf-mute School.

The insane are provided for at the Oregon Insane Hospital, Salem. Number of inmates, 1,100.

Pennsylvania.—There have been during the past year enlargements of the capacity of some of the hospitals for the insane, but no important new institutions have been established.

The almshouse population of the State (68 counties) aggregates 11,000, nearly three fourths of the inmates being the indigent aged. Other classes have been to a great extent segregated in special institutions.

Destitute children are cared for in asylums under private management or in families under the placing-out plan, having been removed from almshouses under the children's law of 1883. The State still supports a school for soldiers' orphans.

There are a few small State hospitals in the mining regions. The number of hospitals under private management, but receiving aid from the State treasury, is very great; and the appropriations toward these, uncertain in amount and depending on the temper of each successive Legislature, have become a heavy burden.

The hospitals in Philadelphia did a notable work last summer in providing for regular and volunteer soldiers brought from the various camps at the close of the Spanish-American War. Scores of hospital trains were sent to these camps to convey the patients to Philadelphia, and at one time nearly 1,500 were under treatment.

There are two educational institutions for blind children, and two industrial homes for the adult blind.

There are four schools for deaf-mutes supported by the State. Adults of this class are nearly all self-supporting.

Two State institutions provide for about 1,500 feeble-minded, and a number equally large remain under county or private care.

A conservative estimate places the number of insane in Pennsylvania at 9,000, giving a ratio of 1 insane person to 715 sane persons in the population. The six State hospitals being unable to provide for the increasing number of this class, the policy of removing all the insane from county institutions has been, at least temporarily, given up, and many harmless chronics are permitted to remain in county asylums.

The insane asylums and hospitals include the Cottage State Hospital, Blossburg; Lancaster County Hospital and Insane Asylum: capacity, 200; State Hospital for the Insane, Danville: nominal capacity, 800; daily average number, 1,051; State Hospital for the Insane of the Southeastern District of Pennsylvania, Norristown: nominal capacity, 650; daily average number, 1,014; State Hospital for the Insane, Warren: nominal capacity, 700; daily average number, 1,032; Western Pennsylvania Hospital for the Insane, Dixmont: nominal capacity, 600; daily average number, 768; insane department, Blockley Almshouse; insane department, Philadelphia Hospital: nominal capacity, 1,200; daily average number, 1,300; department for the insane of the Pennsylvania Hospital: nominal capacity, 500; daily average number, 411.

The Wilkesbarre City Hospital is a general hospital. Total receipts, \$25,461; total expendi-

tures, \$28,852; number of beds, 75; daily average number of beds occupied, 57; number of in-patients, 737; cost per in-patient per day, \$1.11.

The Western Pennsylvania Hospital is also a general hospital. Total receipts, \$107,402; total expenditures, \$95,470; number of beds, 218; daily average number of beds occupied, 150; number of in-patients, 2,689; cost per in-patient per day, \$1.77.

Rhode Island.—The State appropriations for charitable institutions for the year ending December, 1898, amounted to \$235,000. This amount was divided up as follows: Deaf and dumb, \$19,000; dependent children, \$20,000; workhouse, almshouse, and Hospital for Insane, \$169,029.31; Society for the Prevention of Cruelty to Children, \$2,500; Soldiers' Home, \$18,000.

An act of the Legislature recently provided that inmates of the State Hospital for the Insane or of the Butler Hospital may be paroled for sixty days.

The first workingmen's loan association in this State began operations in Providence, Feb. 1, 1898, with a paid-up capital of \$25,000. On April 1, 1899, the association declared a dividend of 2 per cent. In October, 1898, the Rhode Island Penny Provident Society began work in Providence. In that city has just been completed an adequate and suitably equipped building, with wood yard attached, for the care of tramps. The city has also opened, in connection with the public-school system, two more schools for feeble-minded children, making four schools in all. These schools are intended to accommodate about 15 pupils each, and are not available for bad cases.

In Newport the Woman's Newport League House and Day Nursery has been started, which, in addition to the usual work of a day nursery, seeks to provide a temporary home for women and girls.

On April 25 of this year a conference of the representatives of the different charitable associations throughout the State was held. No permanent organization has yet been effected, but a committee was appointed to arrange for a conference next year. It is not improbable that a regular State conference will be the outcome.

The poor are provided for in the State Almshouse: men, 147; women, 160; boys, 31; girls, 23; total, 361. City and town almshouses, 312 (approximate); total for class, 673.

Destitute children are cared for in the State Home and School: in the school, 137; in families, 155 (approximate); total, 392 (approximate).

There is no special State institution for sick and injured. The figures for private hospitals are not at hand.

There is no institution in the State for the care of the blind. Dec. 31, 1898, the State was supporting 25 blind in institutions outside the State.

Deaf-mutes (58) are cared for in the Rhode Island Institute for the Deaf.

There is no institution in the State for the care of feeble-minded children. There are 23 feeble-minded children in the State Almshouse, included in the figures given above. On Dec. 31, 1898, the State was supporting 19 feeble-minded in institutions outside the State.

The insane are provided for in the State Hospital for Insane: men, 352; women, 363; total, 715. Butler Hospital: men, 90; women, 102; total, 292. Total for class, 1,007. There are also about 100 insane in the State Almshouse, included in the figures for that institution.

Rhode Island Hospital is a general hospital. Total receipts, \$81,772; total expenditures, \$81,772; number of beds, 200; daily average number

of beds occupied, 161; number of in-patients, 2,583; number of out-patients, 6,603; cost per in-patient per day, \$1.39.

South Carolina.—According to the latest available report, the South Carolina State Hospital for the Insane has over 900 inmates. A substantial three-story brick structure has been erected, and is now in use for colored male inmates. The South Carolina Institution for the Deaf and Blind, at Cedar Spring, has 120 deaf and 59 blind pupils, with an average attendance of 142. In this institution special attention is paid to the teaching of articulation and lip reading. The experiment of teaching deaf and blind children in the same class has been successfully made in this school. It is believed that up to the time of its introduction in this State it had never before been attempted in any part of the country.

In the city of Charleston there has been started a Hospital for Colored Persons and a Training School for Nurses. All the staff consists of colored persons. All of the church and benevolent societies co-operate with the Associated Charities in this State.

South Dakota.—The Legislature which convened last winter made an appropriation for the erection of a school for feeble-minded. As no provision was made for its maintenance, it will not be available for two years. It also made a small appropriation for an asylum for the blind. These are now cared for in Iowa. It rejected several bills framed in the interest of children, and also one intended to prevented chronic pauperism.

Twenty years ago only one railroad reached what is now the State, and the wave of emigration which settled the Territory and made the Commonwealth what it is to-day began in 1881. Yet the State has to-day a large modern brick hospital for the insane, costing more than half a million dollars, and a school for deaf-mutes housed in four granite buildings. Each of these institutions possesses a large and fertile farm, where the inmates not only are taught skill in agriculture and the raising of live stock, but produce their own food. Each is managed by a trained corps of managers, employing the most modern system which the thought and skill of the time have evolved.

There are now 300 men and 171 women in the insane asylum, and 48 children in the deaf-mute school. During the five years ending in 1898 28 per cent. of those received into the insane asylum were discharged cured. With the exception of the violent and the hopelessly demented, the inmates are all employed. The law is that the number of insane patients confined in the State outside of the hospital must not exceed 25.

The School for Deaf-mutes is at Sioux Falls. The work of the superintendent, himself a mute, has been highly successful. A farm of 60 acres, half belonging to the State, is connected with the institution, and the pupils are taught farming. The State has no school for the blind, but takes charge of the education of its blind citizens. At present there are only three, and they are being educated at the Iowa State School at the expense of South Dakota.

Tennessee.—The sums expended by the State in behalf of charitable institutions for the fiscal year 1899-1900 included the following items: Blind, \$175 for each student and \$15,000 for improvements; deaf and dumb, \$165 for each student and \$5,500 for improvements; insane, \$205.525, with 1,425 patients in three institutions; Ladies' Confederate Soldiers' Home, \$90 for each

inmate, \$500 for repairs, and \$150 for religious services.

Texas.—The State appropriations for charitable institutions for the year ending February, 1900, amounted to \$629,167. This amount included the following items: Blind, \$48,212; deaf and dumb, \$29,950; insane, \$422,980; orphans, \$60,300 (estimated).

Several bills are under consideration proposing liberal appropriations for the enlargement and better equipment of State institutions, which include three asylums for insane, two schools for deaf-mutes—one for colored persons—School for the Blind, Old Soldiers' Home, and Orphanage. At the last session an appropriation of \$50,000 was made for the building of an asylum for epileptics on a large tract of land already secured for the purpose. To this good beginning, doubtless, additional appropriations will be made from time to time, till the demands of necessity on this line shall be met.

Texas has no school for feeble-minded. The unfortunate of this class are kept with the indigent on county poor farms, but better things are hoped for in the near future. There is no State board of charities, but the larger cities have charity organizations that afford systematic relief to thousands of the very poor.

There are a number of rescue homes, hospitals, and homes for the aged and dependent in various parts of the State, under control of churches and societies, all doing a good work of relief and reformation.

There are 13 orphanages in Texas conducted by various churches and societies. Some of these find homes in families for many children, and agents of children's home-finding societies out of Texas also work on this line in this State. The Buckner Orphans' Home alone, near Dallas, has in families, and yet under its watch care, 800 children.

Poor in poorhouses are cared for in the Old Soldiers' Home, with 240 inmates; in homes for the aged (estimated), 50; on county farms, unknown; destitute children in State Orphans' Home, 400; Buckner Orphans' Home, 365; Buckner Home Annex (average), 13; Methodist Orphans' Home, 85; St. Mary's Orphanage, 100; Galveston (name not given), 53; Odd Fellows' Orphanage, 49; Masonic Widows and Orphans (not opened); Island City Protestant Orphanage, 40; San Antonio Protestant Orphanage, 53; Faith Home, 23; St. Matthew's Orphanage, 30; Bayland Orphanage, 35; Gainesville Orphans' Home, 10; Fort Worth Benevolent Home, 59; total orphans in institutions, 1,315.

The blind are taught in the State School, 177 pupils; deaf-mutes in the State School, 284 whites and 100 (estimated) colored. The insane are housed in the State asylums, 2,040.

Utah.—The sums expended by the State in behalf of charitable institutions for the fiscal year ending November, 1898, included \$26,961.99. Under the heading of insane, the cost for two years ending November, 1898, was \$79,831.78, with 263 patients.

There has been no legislation in the field of charities and reform. No important charitable organizations have been established.

The number of blind in the School for Deaf, Dumb, and Blind is 18.

The number of insane in State asylums is 273. The expenses during the past two years amounted to \$79,832.

Vermont.—Among the legislative provisions enacted in 1898 is included one whereby imbeciles who had been sent to the State Asylum shall

be remanded to town almshouses. This forbids the detention in hospitals for the insane of demented persons who are not dangerous.

The number of poor in poorhouses, etc. (all boarded out), is unknown; there are three homes for orphan and destitute children in the State, under private management, containing about 150. The sick and injured are cared for in five hospitals, under private management.

There are, according to the latest report, 8 blind, 19 deaf-mutes, and 9 feeble-minded children cared for in institutions in Massachusetts and Connecticut, the State appropriating \$11,000 annually for this purpose, the beneficiaries being designated by the Governor. In the State Hospital the number of insane is reported as 520; in the Brattleboro Retreat, at the charge of the State, 100.

Virginia.—There are no available statistics concerning poor and destitute children. Provision is, however, usually promptly made for all in these classes. Each county and each city maintains an almshouse. Here and there throughout the State are homes and asylums for orphans and destitute children. All these homes and asylums are supported by private charity organizations, churches, etc.

The sick and injured are always promptly cared for and treated in local hospitals, most of which are very well equipped.

The School for the Deaf and the Blind (exclusively for white pupils), at Staunton, is supported by and under supervision of the State. Nearly 200 pupils.

No State provision is made for feeble-minded children. Usually the indigent cases are provided for in almshouses, private charitable homes, etc.

The insane are cared for in four State hospitals, though at present their capacity is inadequate for all those needing hospital treatment. There are about 250 in various private families, in jails, etc., awaiting room in the State institutions. At present there are 1,700 insane in the hospitals for whites, and 800 insane negroes in Central Hospital, near Petersburg, Va.

Washington.—The amount expended by the State in behalf of charitable institutions for eighteen months ending September, 1898, was \$3,509.95. This included \$2,013.67 under the heading of insane, and \$896.28 for the Soldiers' Home, with 130 inmates.

A bill was passed at the meeting of the last Legislature appropriating \$14,000 to establish a home for adult blind. The Washington Children's Home Society, located at Seattle, is successfully aiding the homeless children of the State. The blind, deaf-mutes, and feeble-minded children are kept in the School for Defective Youth. Statistics are not forthcoming. The average daily attendance at three of the principal charitable institutions is as follows: Western Washington Hospital for the Insane, 532; Eastern Washington Hospital for the Insane, 279; Washington Soldiers' Home, 123.

West Virginia.—The sums expended by the State for charitable institutions for the year ending September, 1900, include the following items: Deaf and dumb, \$50,350, with 134 pupils; insane, \$219,750, with 1,346 patients; Home for Incurables, \$39,000.

The Legislature of 1899 was quite liberal in providing for State charitable institutions. The building to be used as the Home for Incurables, located at Huntington, was reported early in the year to be well under way, and likely to be ready for occupancy in a few months.

Three hospitals, to be known as miners' hospitals, were provided for, and \$22,000 given to each. One is to be located on the Monongahela, in the Fairmont coal region; one in the Kanawha valley; and the other on the Norfolk and Western Railroad, in the southern part of the State. Under certain conditions patients other than miners may be admitted to these hospitals, small fees being charged for treatment. The Children's Home Society, which has been doing such excellent work as a private institution, is now recognized by the State. A board of managers has been appointed by the Governor, and a small appropriation made to assist in its philanthropic work.

No statistics are available concerning poor in poorhouses, but it is believed this class will average 15 to each county in poorhouses.

The Children's Home Society, recently incorporated, finds homes for destitute children, and makes temporary provision for them.

The sick and injured in towns and cities are cared for by the municipal authorities, and in country districts the county court usually makes provision when those benevolently inclined fail in this duty.

The number of blind cared for by the State includes 32 males, 31 females; total, 63. Deaf and mute, 125; deaf or mute, 15; total, 140.

A home is now being erected for feeble-minded children at Huntington.

The insane of the State are in two hospitals, one at Weston and the other at Spencer. The total number of patients in these two institutions is 1,373.

Wisconsin.—Public sentiment, as expressed through the Legislature, continues favorable to liberal provision for the wards of the State. The estimate of the Board of Control for \$895,000 for the maintenance of the State charitable and penal institutions for two years was appropriated without any reduction and without a dissenting vote. Liberal special appropriations were also made for extensions and improvements, among which were \$161,000 to complete the Home for the Feeble-minded.

The Home for Feeble-minded at Chippewa Falls is full, and several hundred applications are on file. This institution, organized three years ago and opened two years since, has about 400 inmates, embracing all grades of mental deficiency. Room will be provided for 200 more at once in three dormitory buildings, and in addition an administration building and a schoolhouse will be built.

The poor remaining in poorhouse at the last report was 882, of whom 595 were males, 287 females. Of this number, 467 were over sixty years old.

Very few children are in poorhouses. Only 37 under sixteen years of age, none of whom were of sound mind and body, had been in almshouses during the year.

The State Public School, the Children's Home Society, and religious orphanages take care of every sound destitute child.

The State does not maintain hospitals, most of which are supported by churches, benevolent corporations, or mutual-aid societies.

The number of blind in the State School of the Blind during the year was 144.

At the State School for the Deaf the attendance was 232, while about 100 attended the day schools for the deaf, to the support of which the State pays \$150 for each pupil.

The number of feeble-minded children in the Home for Feeble-minded was 399. A large num-

ber of idiots are still in poorhouses and county asylums.

On Sept. 30, 1898, there were 1,314 insane in the two State hospitals and the Milwaukee County Hospital, and 3,236 in the 26 county asylums, which constitute what is called the "Wisconsin system."

Wyoming.—The expenses of the State in 1898 under the heading of deaf, dumb, and blind amounted to \$1,950. The amount estimated under the heading of insane for the year ending October, 1898, was \$42,000, with 77 patients. The estimated expenses for hospitals, 1898, is given as \$25,000, with 313 patients. An item of \$16,000 is shown as expended for the Soldiers' Home.

Almshouses. Cities.—In the Federal report prepared by the Commissioner of Labor in compliance with an act passed July 1, 1898, and published during September, 1899, appear valuable statistics concerning charitable institutions in 140 cities of the United States. Under the heading of almshouses, it is reported that these institutions exist in only 49 cities out of the whole number. New York and St. Louis possess 3 each. Boston, Charleston, S. C., and Newport, Ky., have 2 each, and the following cities are credited each with a single almshouse: Albany, N. Y.; Allegheny, Pa.; Baltimore, Md.; Bridgeport, Conn.; Brockton, Mass.; Cambridge, Mass.; Cincinnati, Ohio; Covington, Ky.; Dayton, Ohio; Duluth, Minn.; Elizabeth, N. J.; Fall River, Mass.; Gloucester, Mass.; Hartford, Conn.; Haverhill, Mass.; Holyoke, Mass.; Lawrence, Mass.; Louisville, Ky.; Lowell, Mass.; Lynn, Mass.; Malden, Mass.; Manchester, N. H.; Newark, N. J.; New Bedford, Mass.; New Haven, Conn.; Norfolk, Va.; Paterson, N. J.; Pawtucket, R. I.; Philadelphia, Pa.; Pittsburg, Pa.; Portland, Me.; Providence, R. I.; Richmond, Va.; St. Paul, Minn.; Salem, Mass.; San Francisco, Cal.; Scranton, Pa.; Springfield, Mass.; Springfield, Ohio; Taunton, Mass.; Trenton, N. J.; Washington, D. C.; Williamsport, Pa.; and Worcester, Mass.

Taking the cities by States, it will be seen from the above that there is an almshouse in every important municipality of Massachusetts, there being a total of 17 in 16 cities and towns. Next in order of numbers comes Pennsylvania, with 5 almshouses in the 5 leading cities. Kentucky, New Jersey, and New York have 4 almshouses each; Connecticut, Missouri, and Ohio have 3 each; Minnesota, Rhode Island, South Carolina, and Virginia, 2 each; and California, District of Columbia, Maine, Maryland, and New Hampshire, 1 each.

There are, according to the report above quoted, 4,247 paupers in the city almshouses of New York State; 2,701 in those of Massachusetts; 2,293 in those of Pennsylvania. In number of paupers in city almshouses, the other States rank as follow: Missouri, 2,101; Maryland, 1,250; California, 961; Connecticut, 807; Kentucky, 348; New Jersey, 344; Virginia, 317; District of Columbia, 211; Ohio, 210; South Carolina, 157; Maine, 146; Rhode Island, 125; Minnesota, 119; New Hampshire, 3.

Orphan Asylums. Cities.—The reports from the 140 cities referred to elsewhere show that in 7 only are there orphan asylums supported from municipal funds. These institutions are located at Charleston, S. C.; Columbus, Ohio; Lynn, Mass.; New York, N. Y.; Pittsburg, Pa.; Springfield, Ohio; and Washington, D. C. The largest is in New York city. It contains 1,181 inmates. The next largest is the asylum at Charleston, S. C., having 275 inmates. Then follow, in their order, Washington, D. C., 104 inmates; Spring-

field, Ohio, 60 inmates; Pittsburg, Pa., 48 inmates; Lynn, Mass., 24 inmates; and Columbus, Ohio, 20 inmates. From this it will be seen that the total number of orphans maintained in city asylums of 140 cities is 1,712.

Hospitals. Cities.—In the Federal report, 1899, above referred to, under the heading of hospitals, it is reported that these institutions—such as are supported by the city—are maintained in 44 out of 140 leading municipalities. New York and Pittsburg possess 8 each. There are 3 in Boston and San Francisco, and 2 in Augusta, Cambridge, Denver, Louisville, St. Louis, Washington, D. C., and Worcester, Mass. Each of the following cities and towns support 1 hospital each: Allentown, Pa.; Atlanta, Ga.; Baltimore, Md.; Binghamton, N. Y.; Charleston, S. C.; Chelsea, Mass.; Cincinnati, Ohio; Cleveland, Ohio; Dallas, Texas; Fall River, Mass.; Galveston, Texas; Holyoke, Mass.; Indianapolis, Ind.; Jersey City, N. J.; Knoxville, Tenn.; Kansas City, Mo.; Little Rock, Ark.; Memphis, Tenn.; Minneapolis, Minn.; Nashville, Tenn.; Newark, N. J.; Paterson, N. J.; Peoria, Ill.; Philadelphia, Pa.; Portland, Me.; Richmond, Va.; Sacramento, Cal.; St. Joseph, Mo.; St. Paul, Minn.; Seattle, Wash.; Spokane, Wash.; Springfield, Mass.; and Springfield, Ohio.

Taking the cities by States, it will be seen from the above that Massachusetts leads in the number of city hospitals, having a total of 11, located in 7 cities. Pennsylvania takes next highest rank in number, with 10 hospitals, 8 of these, however, being in Pittsburg. Third on the list is New York, with a total of 9 hospitals, of which 8 are in New York city. Missouri possesses 4 city hospitals; also California, 3 of the city hospitals in the latter State being supported by the municipality of San Francisco. Georgia, New Jersey, Ohio, and Tennessee have 3 city hospitals each. There are 2 in Colorado, District of Columbia, Kentucky, Minnesota, Texas, and Washington. The following States have 1 city hospital each, located respectively at Little Rock, Peoria, Indianapolis, Portland, Baltimore, Charleston, and Richmond: Arkansas, Illinois, Indiana, Maine, Maryland, South Carolina, and Virginia. The hospitals at Seattle and Spokane are for contagious diseases only.

Expenditures. Cities (hospitals, asylums, almshouses, and other charities).—The expenditures under these headings, as shown in the Federal report, cover one fiscal year, the latest available for purposes of the investigation. In 1 city only of the 140 concerning which accurate municipal statistics are available—Boston, Mass.—does the expenditure exceed \$1,000,000. The total given for that city for the last fiscal year is \$1,283,944. The next highest expenditure for a similar period is Philadelphia, \$655,369. Then follow, in the order given, ranked by amount expended: St. Louis, \$591,526; Baltimore, \$355,581; Washington, D. C., \$315,813; Cincinnati, \$206,458; Buffalo, N. Y., \$195,924; San Francisco, \$186,115; Pittsburg, \$155,763; Newark, N. J., \$142,481; Worcester, Mass., \$126,618; Cleveland, Ohio, \$116,343; Lowell, Mass., \$108,880; Fall River, Mass., \$107,847; Cambridge, Mass., \$103,984. The total number of cities expending more than \$100,000 for city hospital purposes is 15.

Three cities—Hartford, Conn., Rochester and Syracuse, N. Y.—expend between \$90,000 and \$100,000; 5 cities—Allegheny, Pa., Minneapolis, Minn., New Bedford, Mass., New Haven, Conn., and Scranton, Pa.—expend between \$80,000 and \$90,000. The cities in which charitable expenditures are between \$60,000 and \$70,000 are Albany, N. Y., Bridgeport, Conn., Detroit, Louisville, and

Springfield, Mass. The only others exceeding \$50,000 are Charleston, S. C., Lawrence, Mass., and Paterson, N. J.

Forty-one cities, or nearly 30 per cent. of the whole list included in the Federal report for 1899, expended during the last fiscal year under this heading amounts varying from \$10,000 to \$50,000. Twenty-seven cities, or 19 per cent., show expenditures for charitable institutions in amounts varying from \$1,000 to \$10,000.

Taking the cities by States, Massachusetts leads in number of cities and towns contributing to the support of local charitable institutions. The total amount expended under this heading in 18 Massachusetts municipalities during the last fiscal year was \$2,246,215. Of this total, Boston contributed \$1,283,944. Four other cities—Worcester, Lowell, Fall River, and Cambridge—exceeded \$100,000. Second in rank in the matter of number of cities is Pennsylvania. There are 14 cities on the list. Of these, 7 appear to have contributed. They include Allentown, Altoona, Erie, Johnstown, McKeesport, Reading, and Wilkesbarre. The amount contributed by the other 7 cities totaled \$1,004,529. Third in rank is New York, with 9 out of 12 cities contributing to charitable institutions, the total given being \$590,321. This does not include New York city, the figures for which could not be given, owing to the new charter readjustments. Of 9 cities in Ohio, 3 are reported as noncontributors. The other 6 give a total of \$383,985. Seven cities of New Jersey gave \$273,019.

Summary of Legislation. North Atlantic States.—A bill was passed in Connecticut to provide for a supervising agent to secure work and homes for boys released from the State Industrial School. Rhode Island has passed a law providing for separate trials and separate confinement of children awaiting trial, and a probation system and probation officers are provided. A law has been passed to regulate baby farms by a licensing system. Two more day schools for feeble-minded children have been established in connection with the public schools of Providence. In New York the destitute mothers' bill to compensate mothers for the care of their own children was defeated. Applications for admission of dependent children to institutions in New York city are now investigated by the Charity Organization Society. If the parents prove to be good people, assistance is provided, so that they can keep their children. The St. Vincent de Paul Society and the United Hebrew Charities co-operate.

In New Hampshire the State appropriates \$2,000 a year for teaching the deaf and dumb, blind, and feeble-minded in Massachusetts institutions. The Governor and Council appoint children to fill vacancies on nomination of the State Board of Charities. The truant law has been amended so as to require a certificate of the required school attendance of children seeking employment. Connecticut has passed a law imposing a penalty for keeping demented or idiotic children or those having incurable or contagious diseases in county homes for children. The Catholic Home Bureau for Dependent Children has been organized in New York city to provide family homes. The State Charities Aid Association is increasing its work in this direction. The Children's Aid Society of New York city is doing considerable work in the State at large. In New Jersey a State Board of Children's Guardians has been created, consisting of three men and two women. All children, public wards, come under its care for placement in families without payment of board.

In Vermont detention in hospitals of demented persons not dangerous is forbidden. A homœopathic hospital for the Connecticut insane is proposed. New York reports a satisfactory development of State care, and additional accommodations have been provided during the year for 1,200 patients.

The new Massachusetts State Hospital for Epileptics is full, and the Legislature has provided for its enlargement to a capacity of 350. The age limit for admission has been lowered to fourteen years.

In New York cities of the first class may establish hospitals for consumptives outside of the city limits. A bill for the State Hospital in the Adirondacks failed, though championed by medical societies and charitable organizations.

North Central States, etc.—The Iowa State Board of Control, established in 1898, is giving general satisfaction. It is composed of three conservative, experienced men. In Nebraska a bill for a State board of charities failed, but is expected to pass in 1901. The Minnesota State Board of Corrections has authority to deport nonresident insane persons and paupers. The Legislature increased the appropriation for this work.

A new law requires the State Board of Corrections and Charities to compile analyzed accounts of the expenditures of the State institutions.

The Indiana Legislature provided for about 550 additional patients in the State institutions. In Iowa there is lively discussion concerning the respective merits of State and county care for the chronic insane. The State Board of Corrections and Charities in Minnesota, after a special investigation, recommended the Wisconsin system of caring for the chronic insane; but the Legislature decided instead to establish two additional State hospitals (making five), and appropriated money to begin both. Missouri has established a fifth insane asylum.

Indiana passed a stringent law, regulating the introduction of dependent children from other States, and requiring a bond of \$10,000 from societies introducing such children. The Illinois Legislature passed a comprehensive law to regulate the care of dependent, neglected, and delinquent children. This law marks a great advance in the legislation of Illinois, which has hitherto been much behind that of other States. The principal features of the law are the recognition of the family home as the best place for the dependent child; the placing of child-saving associations under the supervision of the State Board of Charities; the direct commitment by the courts of children to the care of approved societies; the establishment of the probation system for juvenile delinquents; the establishment of a separate "children's court" in the city of Chicago; the prohibition of confining young children in jail, and the prohibition of confinement of young children in the same buildings or yards with adult convicts; the regulation of the placing of children in this State by foreign corporations. A law was passed providing for parental schools in Chicago; also a law permitting vacation schools. Michigan passed a law prohibiting unincorporated associations from receiving, maintaining, or placing children. All incorporated societies which care for dependent children are placed under the supervision of the State Board of Corrections and Charities. A law is pending providing State care for defective dependent children.

The next Ohio Legislature will be asked to provide for deformed and crippled children. The Wisconsin Home for Feeble-minded has 400 inmates, and is already full, with several hundred

applications on file. About 100 children attend day schools for the deaf, the State paying \$150 per year each. In South Dakota the Legislature of 1899 made an appropriation for a school for feeble-minded, also a small appropriation for a school for the blind. In Nebraska an important bill was passed to regulate child labor, also a truant law. The Home for the Friendless, a private institution, largely maintained by State appropriations, has been turned over to the State as a State institution. The Legislature of Minnesota passed a law to regulate the importation of dependent children from other States. The consent of the State Board of Correction and Charities must be obtained. The North Carolina insanity laws have been recodified, providing for licensing of private institutions, supervision of county and municipal asylums by the Board of Public Charities, etc.

A house and grounds, with \$10,000 in cash, have been given to the Baltimore Hospital for Consumptives.

The Texas Legislature appropriated \$50,000 for an asylum for epileptics.

The State Home for Incurables at Huntingdon, W. Va., will be ready for occupancy in a few months.

District poorhouses may be erected jointly by adjacent counties in Minnesota. The St. Louis Provident Association has laid the foundation of a \$70,000 building.

In California a bill for a State board of charities and correction passed both houses, but was refused by the Governor. The Washington State Board of Audit and Control, consisting of the Governor, *ex officio*, and five members, manages the two insane hospitals, Penitentiary, Reform School, and Soldiers' Home.

The Montana Legislature of 1899 established a home for feeble-minded. A law was passed permitting children to be taken from inhuman parents. A home for children has been established, to keep them until they can be adopted. In Indian Territory there is an orphan school in each tribe. The Choctaw nation has a school for orphan girls, another for boys, and contracts with the Atoka Baptist Academy to care for 50 more. A work for white orphans has been started at Pryor Creek.

A bill to reorganize the system of managing insane asylums in Oregon failed. Indian Territory has no insane hospital.

A bill to disestablish the State Home for the Blind was vetoed by the Governor of California. Fourteen thousand dollars was appropriated to establish a home for adult blind in the State of Washington. There are no poorhouses in the Indian Territory. Some tribes make provision for the poor.

Federal Census Results.—The latest complete statistics concerning paupers in almshouses and inmates of benevolent institutions were issued early in 1895, under date of Dec. 1, 1894, from the Census Office, Washington, D. C., and represent the results of an inquiry instituted by the Federal Government as part of the eleventh census investigation, which gave conditions as they existed on June 1, 1890. Until the results of the twelfth census are made known it will not be possible to give even fairly approximate figures concerning increases and decreases at any date (except in a few States) since 1890.

On June 1, 1890, there were in the almshouses of the United States 73,045 paupers (40,741 male and 32,304 female). Of this total, 44,026 were native born and 28,419 were foreign born. The number of whites is given as 66,578, and colored

6,467. The colored pauper element, relative to the total colored population, neither increased nor decreased between 1880 and 1890. The white element of the pauper population tended to decrease to such extent that, divided as native and foreign, male and female, the whole pauper population showed a decrease in ratios.

The principal cause assigned for pauperism is the want of any other home, this cause being given in 72,722 cases (40,563 male and 32,159 female). The next most common cause is age and infirmity, 20,121 (11,799 male and 8,322 female). Cripples come next, 10,373 (7,181 male and 3,192 female).

The foregoing deals exclusively with pauperism, but much interesting information is given in the eleventh census reports under the heading of "benevolent institutions." It is stated that on June 1, 1890, there were in the benevolent institutions of the United States 111,910 beneficiaries, including 55,245 males and 56,665 females.

An interesting showing is made concerning nationality of foreign-born whites. The total number of foreign-born inmates of benevolent institutions in the United States at the time of taking the eleventh census was 26,322. Of these, the nations most largely represented were Ireland, 11,148; Germany, 5,704; England, 2,424; Canada and Newfoundland, 1,211; Italy, 941.

The Annual Cyclopædia is indebted to Mr. Hastings H. Hart, general secretary of the National Conference of Charities and Correction, for courtesy in furnishing early printed copies of the conference report. Thanks are due also to the following conference State and Territorial correspondents for 1890, from whose reports excerpts have been made for this article: Alabama, Julia S. Tutwiler; Alaska, Sheldon Jackson; California, Mrs. Agnes W. Flint; Colorado, Minnie C. T. Love, M. D.; Connecticut, Charles F. Kellogg; Delaware, Emalea P. Warner; District of Columbia, Henry B. F. Macfarland; Florida, L. B. Wombwell; Idaho, F. B. Gault; Illinois, Ephraim Banning (F. C. Dodds, 1898); Indiana, Amos W. Butler; Iowa, W. S. R. Burnett; Indian Territory, Edwin H. Rishel; Kentucky, Miss Emma A. Gallagher; Louisiana, Michel Heymann; Maine, Mrs. L. M. N. Stevens; Maryland, Kate McLane; Massachusetts, John D. Wells; Michigan, L. C. Storrs; Minnesota, James F. Jackson; Missouri, Miss Mary E. Perry; Montana, Mrs. Laura E. Howey; Nebraska, A. W. Clark; New Hampshire, Mrs. Melusina H. Varick; New Jersey, Hugh F. Fox; New Mexico, Rev. Mary J. Borden; New York, Homer Folks; North Carolina, C. B. Denson; North Dakota, T. N. Poole (W. J. Sisson, 1898); Ohio, Joseph B. Byers; Oklahoma, Frederick L. Wenner; Oregon, W. R. Walpole; Pennsylvania, James W. Walk, M. D.; Rhode Island, Henry B. Gardner; South Carolina, Mrs. M. A. Rhett; South Dakota, W. B. Sherrard; Texas, Rev. Robert C. Buckner, D. D.; Utah, Miss Grace M. Paddock; Vermont, Rev. J. Edward Wright; Virginia, Dr. William F. Drewry; Washington, Thomas P. Westendorf; West Virginia, Thomas C. Miller; Wisconsin, James E. Heg.

Among the books consulted were: Bulletin of the Department of Labor, No. 24, September, 1899, edited by Carroll D. Wright, commissioner, and Oren W. Weaver, chief clerk; Eleventh Census Report on Crime, Pauperism, and Benevolence, edited by Frederick H. Wines, special agent; American Charities, by Amos G. Warner; Charities Review, 1899; and Hospitals and Charities, 1890, by Sir Henry Burdett, K. C. B.

From the Bulletin of the Department of Labor many important facts and figures were obtained

concerning municipal charitable institutions in 140 cities. The Eleventh Census Report referred to is probably the most elaborate as well as the most complete ever published. From Sir Henry Burdett's work much valuable matter was obtained concerning the most important general hospitals in this country.

CHEMISTRY. Chemical Theory.—An explanation of the nature of valence, based upon the harmony of atomic motions, has been attempted by Prof. E. P. Venable. The extension of the atomic theory, he says, "teaches that the atoms are endowed with motion, and this motion probably varies in velocity and phases with the different elements. So, too, when the atoms unite the resulting molecule has a certain motion peculiar to it, while the atoms composing it have an intramolecular motion, in which their original motions are probably modified by their influence on one another. It is quite manifest, then, that a molecule in order to exist must maintain a certain equilibrium and harmony between these various motions, and that there can be all degrees of equilibrium from the very stable to that which may be upset by the least disturbing influence from the other. It seems to me that herein we have a full and satisfactory means of explaining the various problems connected with the conception of valence. The question as to whether the atoms of two elements will unite is decided by affinity, which is in some way connected with the electrical condition of these atoms. There is no apparent connection between this and valence. The number of atoms which enter into combination forming one molecule is purely a matter of equilibrium, and is dependent upon the nature of those atoms. Thus a phosphorus atom unites with chlorine atoms because of a certain affinity between them. The number of chlorine atoms with which it will unite depends upon the possibility of harmonizing the respective motions. As the temperature may affect these motions, and also impart a more rapid molecular motion, it is evident that the harmony or equilibrium will depend upon the temperature, and that a temperature may be reached at which no harmony is possible, and hence no compound can be formed. The phosphorus atom mentioned can, as we know, form a stable molecule with five atoms of chlorine. On increasing the temperature this becomes unstable, and only three atoms can be retained. Neither with four atoms nor with two is there harmony of motion. A sufficiently high temperature may prevent any harmony of motion whatever being attained, and hence union may become impossible. As to other influences than those of temperature, we can see that the equilibrium between the atom of phosphorus and the five atoms of chlorine may be upset by such a molecule coming within the influence, electrical or vibratory, of a molecule of water. The atoms must rearrange themselves for a new state of equilibrium, and so an atom of oxygen takes the place of two atoms of chlorine, giving again a condition of harmony. In other cases the motion of the molecule of water may be of such a character as to harmonize directly with that of the original molecule, and so to enter into equilibrium with it, a definite number of such molecules of water affording a condition of maximum stability. This we call water of crystallization. Such molecules would be more or less easily separated by an increase of temperature, and, where several molecules of water were attached, the highest temperature would be necessary for freeing the original molecule from the last water

molecule. This theory of valence makes it clear why it should vary toward the same element under different conditions. It is also clear that it might vary toward different elements, as these are very possibly possessed of different motions. It is further evident that it is in accord with the conclusion that valence is not an inherent property of the individual atom, but is the resultant of the influence upon each other of the combining atoms." In accounting for the elements of the same group in the periodical system having practically the same valence, the author supposes that they are all possessed of the same phase or kind of motion. These are, in large measure, independent of the atomic weights.

The chemical processes involved in the saccharification of starch by malt diastase were discussed in the British Association by Dr. A. Fernbach, of the Institut Pasteur, and Dr. G. H. Morris. Dr. Fernbach detailed his observations on the influence of acids and of some salts on saccharification, which had led him to the conclusion that the slightest trace of any free acid retards the action of diastase on gelatinized as well as on soluble starch, provided both the starch and the diastase are free from salts on which the added acid may act; but if the addition contains salts, such as secondary phosphates, which are distinctly unfavorable to diastatic action, the addition of acid is favorable as long as there is no excess of primary phosphates. The president of the chemical section (Dr. Horace T. Brown) regarded these results as opposed to his own observations on the subject, and considered further details of the experiments necessary to justify the conclusions. The paper of Dr. G. H. Morris bore more especially on the combined action of diastase and yeast on starch granules, and showed that ungelatinized intact starch granules, when submitted to the joint action of diastase and yeast, are fermented to a large extent, the maltose first formed being converted into alcohol. The addition of a small quantity of yeast to a cold-water malt extract more than doubles the percentage of starch that is changed. This increased action is not due to any greater activity of the diastase that might result from the removal of the soluble product formed (maltose). For the increased action to occur it appears necessary to have the diastase and the yeast present together in a condition capable of exercising their respective functions. Dr. Morris also discussed the action of acids on starch, and showed that maltose is always obtained as a product of hydrolysis, together with dextrine and dextrose. This is contrary to H. Johnson's statement that the two latter compounds are the sole products of the action.

In reference to the simultaneous occurrence of phenomena of oxidation and hydration at the expense of organic substances, experiments were carried out by M. Berthelot on the slow oxidation of ether in presence of water and air or of hydrogen peroxide. After five months' exposure to light in a sealed tube, the air remaining over the ether contained no trace of oxygen, but some aldehyde, acetic acid, and alcohol were found in the ether. A little methane is formed at the same time. Two chemical reactions were thus shown to be going on together—a hydration and an oxidation. The author considered that similar reactions are going on in Nature, such substances as the sugars, carbohydrates, glycerides, etc., undergoing the two processes simultaneously.

M. Gerber, of Marseilles, who has been studying the formation of the substances found in plants, communicated to the French Associa-

tion for the Advancement of Sciences in 1898 the results of his researches on the formation of olive oil and castor oil. He has since extended the investigation to a large number of other vegetable fats. From them he concludes that these substances are produced at the expense of carbohydrates and sugars, and that the phenomenon is accompanied by a respiratory quotient superior to unity. The biological chemistry of plants, therefore, seems to be identical with that of animals. M. Gerber has further undertaken new researches to determine whether the formation of fats is due to an alcoholic fermentation, by which he means one in which absorbed oxygen is derived from the combustion of a part of the sugar. The result of these experiments rather gives probability to the hypothesis that the hydrocarbons and the sugars in their transformation into fats take oxygen from the atmosphere, returning to it a considerably larger volume of carbonic-acid gas. As this gas contains its volume of oxygen, there seems to be a departure of more oxygen than is absorbed. The process is therefore one of deoxidation.

In speaking of the recent discovery by M. and Mme. Curie of the new radio-active substances polonium and radium, Sir William Crookes said that the radiant activity of those substances needs neither the excitation of light nor the stimulus of electricity, but, as in uranium, it draws its energy from some constantly regenerating and hitherto unsuspected store, exhaustless in amount. It can be conceived that uranium, polonium, and radium—bodies of densest atoms—have a structure that enables them to throw off the slow-moving molecules of the atmosphere, while the quick-moving molecules, smashing on the surface, have their energy much reduced, with a corresponding increase in the energy of the body. The energy thus gained seems to be employed partly in dissociating some of the molecules of the gas, and partly in originating an undulation through the ether, which, as it takes its rise in phenomena so disconnected as the impacts of the molecules of the air, must furnish a large contingent of light waves of short wave length. The shortness in the case of these Becquerel rays appears to approach, without attaining, the extreme shortness of ordinary Röntgen rays. The reduction of the speed of the quick-moving molecules would cool the layer of air to which they belong, but this cooling would be rapidly compensated by radiation and conduction from the surrounding atmosphere.

The subject of symbiosis, or the associated living of organisms, has recently been discussed by Prof. Marshall Ward from the physiological, and by Prof. H. E. Armstrong from the chemical, point of view. Prof. Armstrong regarded it as open to question whether symbiotic relationship involves more than a subdivision of labor. There is an absence of positive evidence tending to show that the one member of a pair of symbiotic organisms or agents does more than prepare the way for the other by effecting a change which the second is incapable of inducing, leaving it to the second to carry on changes in which the initiating organism plays no part. It may be a function of the one organism to remove from the sphere of action, as it arises, a product which would tend either to inhibit the change by which it is formed or to promote its reversal. Or the one organism may produce a change which, although minute, is sufficient to place the companion organism under the most favorable conditions; or, again, the one organism may become associated with the hydrolyte, and thus shield or

mask a particular center in it, thereby making it possible for the second organism actively to affect the molecules at other centers. This case corresponds to the removal of a ward from a lock, and the consequent possibility of using a simpler key. Fermentation being at bottom a process of hydrocatalysis, the function of the enzyme is to introduce water into the circuit of change, or to establish a circuit in which hydrolytic changes can occur. Hence we may speak of the substance fermented as the hydrolyte, of the ferment as the hydrolyst, and of the products of hydrolysis as the hydroschists. It is more than probable that the products ordinarily obtained are but end products of a series of changes, and that only some of these are enzymic, while others occur, as it were, naturally, and are partly analytic and partly synthetic in character. Symbiosis as distinguished from parasitism involves the conception not only of the concurrent existence of organisms, but of their useful concurrence.

Chemical Physics.—In his address on the Progress of Physical Chemistry before the chemical section of the American Association for the Advancement of Science Prof. Theodore W. Richards, after some general references to work continued during the year in stoichiometry, on solutions, on molecular compounds, in electro-chemistry, and in the discovery of new elements by means of physical instruments and operations, spoke of some unpublished work on physico-chemical problems which had been done in the laboratory of Harvard University. Among them were a series of measurements of the potentials of galvanic cells composed of metallic plates immersed in fused salts at high temperatures, in which constant values, agreeing remarkably with Nernst's formula, have been reached by Dr. Gordon; an attempt to verify Faraday's law (more successful than had previously been done), by Mr. Edward Collins; a series of careful measurements of the potential of numerous reversible electrodes with the temperature and a comprehensive revision of Meyer's work on concentration cells, involving amalgams of different strengths, by Mr. G. N. Lewis; studies of the eccentricities of inversion temperatures and of transition intervals exhibited by the double sulphates of potassium and manganese, by Mr. F. R. Fraprie; determinations of the solubilities of argentic halides in solutions of sodic thiosulphate, by Mr. Faber; observations of some cases in which the dissolving of a solid in a solution caused a lowering instead of a rise of the boiling point, by Messrs. Harrington and Henderson; a careful determination of the melting point of crystallized Glauber's salt, made by Mr. Churchill for the purpose of securing a new fixed point for the standardizing of thermometers; and a study of the causes of the occlusion and the unequal release of gases by the oxides of metals formed from the nitrates, by the author. It became evident in the last research that the excess of oxygen usually present in the material under consideration has a tendency to work its way out by a process of dissociation and recombination which reminds one of the old-fashioned explanation of electrolysis. The nitrogen, not being able to escape in this fashion, is retained.

In the autumn of 1898 the production of liquid hydrogen in manageable quantities having become possible, its solidification under reduced pressure was undertaken by Prof. James Dewar. The first experiments were made with the apparatus devised by the author, consisting of a small vacuum test tube placed in a larger

vessel of the same kind, excess of hydrogen partly filling the space between the two vessels, and performing most of the evaporation relied upon to conduct the experiment. This attempt was not successful, partly on account of the need of a larger supply of the liquid, and other problems were attacked. Recurring subsequently to experiments with liquid hydrogen, Mr. Dewar noticed that there was almost invariably a slight leak of air, which became apparent by its being frozen into an air-snow in the interior of the vessel, where it met the cold vapor of the hydrogen coming off. The effect of this slight air leak on the liquid hydrogen when the pressure was reduced below 60 millimetres was to cause its solidification into a white frothlike mass, like frozen foam. To determine whether this mass was really solid hydrogen or a sponge of solid air containing the liquid hydrogen the author devised another apparatus, operating with which he observed, upon the required conditions of pressure, a gradual accumulation of perfectly pure liquid hydrogen in the inner tube, and eventually a sudden passage of the liquid hydrogen surrounding the outside of this tube into a solid foamlike mass, almost filling the whole space. The hydrogen in the inner tube not being visible through this mass, the apparatus was turned upside down, and no liquid flowed down the reversed tube. The hydrogen within it must therefore have been partly solidified. By the aid of a strong light and continuing the exhaustion the solid in the space between the tubes became less opaque, and the material in the inner tube was seen to be a transparent ice in the lower part, while the surface looked frothy. This fact prevented the solid density from being determined, but the maximum fluid density was approximately ascertained to be 0.080, the liquid at its boiling point having the density 0.07. The solid hydrogen melts when the pressure of the saturated vapor reaches about 55 millimetres. The mean temperature of the solid was found to be 16° absolute (—257° C.) under a pressure of 35 millimetres. Its indicated melting point is about 16° or 17° absolute (—257° or —256° C.). The foamlike appearance of the solid when produced in an ordinary vacuum is due to the small density of the liquid, and to the fact that rapid ebullition is substantially taking place in the whole mass of liquid. Prof. Dewar assumes that "the last doubt as to the possibility of solid hydrogen having a metallic character has been removed, and for the future hydrogen must be classed among the nonmetallic elements."

A mixture of marsh gas and air, in the most explosive proportions, was introduced by H. Couriot and J. Meunier into electric lamps during incandescence by a method described in the authors' paper. It was found that the incandescence of the filament was at once obscured except at one point, where, in about a minute, a rupture occurred with a faint spark. No explosion of the mixture of air and methane occurred; but that combustion had taken place was shown by the production of water and carbon dioxide and the disappearance of inflammable gas inside the lamp. Hence the spark which passed the moment the filament was ruptured remained without effect. It had previously been pointed out that incandescent metallic threads are powerless to cause the explosion of the most explosive mixtures; the same is the case with the lamp filaments.

An observation made by Henry J. H. Fenton in 1876 on the influence which iron exerts upon the oxidation of certain organic substances has

since been followed out to full investigation, and an extensive study has been made of the behavior of various other substances under similar conditions of oxidation and of the resulting products. The peculiar advantage of the method with iron consists in the fact that it is often possible to obtain by its products of limited oxidation which can not be prepared in any other way. Hydrogen peroxide is the most efficient oxidizing agent for the purpose, although others may sometimes be substituted. The iron which is essential to the process must in all cases be in the ferrous condition, but its proportion bears little, if any, relation to the yield. In regard to the general nature of the oxidation, it may be assumed that the initial result is the replacement of H by OH. The part played by the iron in these changes is still matter for discussion. The author's provisional theory is that the ferrous iron first replaces nonhydroxylic hydrogen, and is subsequently oxidized; and it is remarked that in the case of every substance found to be sensitive to this reaction nonhydroxylic hydrogen is present, associated in almost every case with alcoholic hydroxyl. The author is studying a variety of subjects of typical constitution, with the hope of throwing further light upon the general nature of this oxidation process, and publishes reports of progress concerning tartronic, lactic, glyceric, and malic acids.

In an account of aqueous solutions of metallic gold obtained by him through reduction of the chloride, Richard Zsigmondy has shown that metallic gold can be held in solution in water in different colored conditions. Although the great variety of colors obtained from the colloidal silver of Mr. Carey Lea can not be produced with gold, yet gold solutions are obtained which are deep red, blue, and black, as well as of shades lying between those colors, according to the conditions under which the gold is reduced. The blue or violet solutions seem to be the most easily obtained. The red solution is the one principally studied. It is obtained by treating very diluted, boiling hot, and slightly alkaline solutions of gold chloride with different reducing agents, such as formic aldehyde, acetic aldehyde, alcohol, and even hydroxylamine. Other colors are, however, liable to be produced by deviations in the process. The very dilute red solution can be evaporated to half its volume without change, but further boiling will cause it to turn to a dark violet color, with precipitation of gold as a black violet powder. The solution can be reduced to one twentieth of its volume in a few days. Solutions containing 0.12 per cent. of colloidal gold were obtained, but on further concentration metallic gold was precipitated. The red-gold solution passes through the closest filter paper without change. It is tasteless. On addition of neutral salts, acids, or fixed alkalis, the beautiful red color turns to blue; the liquid becomes turbid, gradually losing its color, and in eight or nine hours the gold falls to the bottom as a blue-black powder. Potassium ferrocyanide changes the color to green, and after twenty-eight hours to yellow; but gold is not precipitated. The metallic gold in aqueous solution acts like other dissolved colloidal substances when subjected to electrolysis.

A detailed study of the properties of liquid ammonia has been undertaken by E. C. Franklin and C. A. Kraus for the purpose of following out the manifest close relation that exists between that solvent and water. Water, the authors observe, occupies an essentially unique position among the known solvents. Its physical

properties, such as its capacity as a general solvent for salts and its power of electrolytic dissociation, its low molecular elevation constant, its high boiling point, and its heat of fusion, heat of volatilization, critical temperature and critical pressure, specific heat, association constant and dielectric constant, with values so much higher than the corresponding values for other substances, all combine to distinguish it from other solvents and give it a place by itself. As a result of their studies the authors conclude that of all known liquids ammonia most closely approaches water in all those properties which give that substance a conspicuous position among solvents. In its capacity as a general solvent for salts it is secondary to water, but superior to all other solvents. It closely approaches water in its power to dissociate electrolytes; some salts conduct electricity even better in ammonia solution than they do in aqueous solution. It plays a part in many compounds analogous to that of water in salts containing water of crystallization. Its heat of volatilization and probably its association constant are higher than those of any other liquid with the one exception of water. For a substance of such simple composition its critical temperature and critical pressure, and its boiling point at atmospheric pressure, are remarkably high, as is still conspicuously true of the corresponding constants in the case of water. Its specific heat is quite as great as that of water, while its molecular elevation constant is lower than that of any other substance for which measurements have yet been made. Ammonia differs from water in its inability to dissolve the sulphates and sulphites, the alkaline carbonates, phosphates, oxalates, the hydroxides of the alkali and alkaline-earth metals, and the facility with which it dissolves organic substances. The liquid does not exhibit a maximum density above the freezing point, and the solid ammonia is not specifically lighter than the liquid at its freezing point.

Major-Gen. J. Waterhouse, of the Royal Photographic Society, assumes, on the basis of Moser's thermographic observations, that metallic silver is sensitive to light. If cut-out masks be laid upon the surface of silver leaf or foil, silvered glass, or on a daguerreotype plate, and exposed to the sun's rays, a visible image ultimately becomes apparent on the metallic surface. The effect may, however, be got in a very much shorter space of time if the partly exposed metal be subjected to mercury vapor or developed by immersion in an acid solution of a ferrous salt mixed with nitrate of silver. Clear images, hardly as yet to be called pictures, can thus be obtained of a permanent character, so that it may be possible to work the daguerreotype process without iodizing the plate. In fact, the photographic phenomena of the invisible developable image, the visible image, reversal, and the effect of pressure marks can all be illustrated on the plain silver surface. Copper seems to be sensitive in the same way.

M. Becquerel has discovered that such substances as develop phosphorescence under the action of the ultra-violet rays are rendered luminous by the radiations of radium, while those which develop that property under the red rays are not so affected, and he remarks upon other analyses between the ultra-violet rays and those emitted by radium.

New Substances.—The emission of active rays from pitchblende has been found by M. and Mme. Curie not to proceed only from the uranium contained in the mineral, but from two other

new radio-active elements as well, which the authors have named polonium and radium. Polonium, they have observed, behaves like an element allied to bismuth, while radium exhibits chemical reactions like those of barium. The individuality of one of these active elements has been confirmed through the observation of a distinct spectrum by M. Demarçay. M. Debierne has been investigating at the Physical Laboratory of the Sorbonne whether pitchblende does not include other radio-active elements, and has reached some interesting results. The substance on which he experimented was the residual matter from a shop where uranium minerals were treated, from which that metal had been extracted. The quantity of radio-active elements left in it being extremely small, the first step was to take large quantities of it and remove the polonium and radium. The greater part of the product precipitated by ammonia consisted of the oxide of iron and aluminum. But, besides those substances, the author perceived a considerable number of others in very small proportions, and he succeeded in separating zinc, manganese, chromium, vanadium, uranium, titanium, niobium, and tantalum. The rare earths were likewise represented, lanthanum, didymium, cerium, and the yttric earths being detected. The radio-activity, which existed to a very slight extent in the crude ammonia precipitate, was concentrated in particular parts as the separations were effected. The portions containing titanium and allied bodies manifested it in the most intense degree; and after a quite complicated treatment a substance was obtained the solutions of which exhibited the principal analytical properties of titanium, but emitted extremely active radiations. The radio-activity of one fraction of this matter was determined roughly as 100,000 times greater than that of uranium. Moreover, the matter had chemical properties entirely different from those of radium and polonium, while the radiations emitted from it were exactly comparable to those which had been observed by M. and Mme. Curie in the case of those substances. They rendered gases capable of discharging electrified bodies, provoked phosphorescence in platino-cyanide of barium, and impressed photographic plates. The new matter is further distinguished from radium in that it is not spontaneously luminous.

In a contribution to Wiedemann's *Annalen* M. E. Neovius describes his photographic studies of the spectra of nitrogen extracted from the air and prepared in the usual manner. Isolating the spectrum of nitrogen, the author remarked that, while he did not find the red spectrum of argon, most of the rays coincided with the blue spectrum of that substance. The rays obtained could be divided into three groups. In the first group, which contained the rays of argon, it was observed that the brighter rays of that substance coincided with much weaker rays of nitrogen. In the second group, which included the rays of nitrogen, the bright rays of the spectrum of that body coincided with much weaker rays of argon. The third group showed weak argon rays coincident with nitrogen rays, the latter being generally weaker. M. Neovius concludes that the rays of this group belong to a new body which occurs in the air in nearly the same proportions as argon. Only one of the characteristic rays of this substance coincides with a characteristic ray of krypton, but the only known ray of neon is outside of the limits of the author's research. The memoir ends with a comparison of the wave lengths of the bands of the spectrum of metargon

as measured by M. Baly with the numbers obtained by M. Kayser for the spectrum bands of carbon. The coincidence of the two series of numbers is complete.

A new silicon acid, called silicomesoxalic acid, is described by Prof. Gattermann, of Heidelberg, as obtained by leaving the chloride of silicon, Si_2Cl_6 , in a platinum dish exposed to the air. Hydrochloric acid is formed, and the octochloride is slowly evolved into a white amorphous mass of silicomesoxalic acid, to which the formula $\text{HO.OSi}-\text{Si}(\text{OH})_2-\text{SiO.OH}$ is ascribed. This substance is very unstable, and on heating decomposes with a flash. When it is pure and dry a touch is sufficient to effect this change.

A new uraniferous mineral, discovered by M. Charles Poulot in Montrose County, Colorado, is described by MM. Friedel and Cumenge. It occurs in the form of a yellow powder or mass which is easily crumbled between the fingers and stains them yellow. It is principally composed of silica in the shape of sand, intimately mixed with a yellowish material consisting of very small grains the structure of which can not be identified, but which act on polarized light. The mineral gives a yellow solution with nitric acid, and a green one with hydrochloric acid. The matter dissolved in nitric acid was found to contain, besides a considerable quantity of uranium, vanadic acid, iron, aluminum, and traces of copper, lead, and potassium; also very small proportions of the radio-active elements discovered by M. and Mme. Curie. It has been named carnotite, after H. Adolphe Carnot, French Inspector General of Mines and author of books on mineral analysis. It appears to occur in considerable abundance, as the extraction of ten tons from one source is mentioned.

By treating the sodium derivative of ethylic oxalo-acetate with hydrocyanic acid and hydrolyzing the cyanhydrin thus produced Augustin Durand has obtained a new acid, homologous with citric acid, which has the composition $\text{COOH}.\text{CH}_2\text{C}(\text{OH}).(\text{COOH})_2$. Experiments are now in progress for the preparation of other homologues of citric acid.

In 1877 the Russian chemist Sergius Kern described what seemed to be a new metal of the platinum group which he had met in treating native platinum ore, and which he proposed to name davyum, after Sir Humphry Davy. The atomic weight assigned to it (near 154) suggested the possible existence in the periodic classification of a hitherto unrecognized element, or possibly of a triad of elements, analogous to the triads ruthenium, rhodium, palladium, and osmium, iridium, platinum. Only one other observer of this supposed element is on record, and in such chemical works as mention it, it is usually placed among the hypothetical elements. A series of researches on platinum residues has been carried on recently by Prof. J. W. Mallet in order to determine, if possible, the sufficiency of the grounds on which the existence of this substance is predicated. The results, as described by the author, while they lend no support to the belief that there is such a metal, are not sufficient to disprove its existence; and he regards it as probable, in the absence of further evidence, that davyum should be looked upon as merely a mixture of iridium and rhodium with a little iron.

M. Guntz has succeeded in proving the existence of suboxide of silver, Ag_2O , preparing the compound by the decomposition of silver oxide, Ag_2O , by heat. Ag_2O begins to decompose slowly at about 250°C .; at the end of a sufficiently long time the decomposition is complete.

New Processes.—Six methods of producing graphite are recognized and described by M. M. P. Muir in Watts's Dictionary of Chemistry, edition of 1890, but none of them has yet been made commercially available. Cowles Brothers, of Cleveland, Ohio, observed a formation of graphite in or about the charge of their electric furnace, and regarded it as something to be removed. A formation of graphite was noticed by O. Rose in an experiment in heating a diamond imbedded in charcoal to the temperature of molten cast iron. Conversion of the diamond and amorphous carbon has also been remarked under the high temperature afforded by the galvanic battery. In experiments on the manufacture of carborundum Mr. E. G. Acheson found that graphite was occasionally formed in certain portions of his furnace charge—at one part by the decomposition of carborundum, and at another part probably by the decomposition of carbides. That formed by the decomposition of the carborundum was remarkable from the fact that it retained the form of the crystal from which it was derived; but it was only one third the weight of carborundum, and possessed the characteristic metallic gray color of pure graphite. Though there seemed to be here two distinct methods of producing graphite, they were, in fact, identical; and the author would define the method as consisting in heating carbon, in association with one or more oxides, to a temperature sufficiently high to cause a chemical reaction between the constituents, and then continuing the heating until the combined carbon separates in the free state. Other salts of the metals may, however, be substituted for the oxides. All the methods of manufacture thus far known contain the same underlying principle of the liberation of the carbon from a chemical association with one or more elements, under conditions unfavorable to or prohibitive of its reassociation with the same or other elements. The author concludes that the only commercial way to make graphite is through the breaking up of a carbide by the action of heat.

A new process for the estimation of nickel in steel, described by Mr. L. Archbutt before the Society of Chemical Industry, depends upon the property possessed by ether of dissolving ferric chloride. If ether be added to a solution containing the two salts, and the mixture be well shaken, after standing the ether will rise to the top, bringing with it the ferric chloride. The nickel will remain in the bottom solution, which will contain a trace of iron. By repeating the process the iron can be completely removed. The percentage of nickel present is most readily ascertained by electrolysis.

The metal palladium, by reason of its exceptional behavior with reference to hydrogen, would seem to be well fitted for the purpose of a reducing agent. In the application of it for this object by Dr. N. Zelinsky a zinc-palladium couple is prepared from zinc and palladium chloride much as the zinc-copper couple is prepared. This is placed in alcohol, and acid is added until hydrogen gas just begins to be evolved. At this stage the palladium black is saturated with hydrogen, and produces energetic reduction of the alkyl iodide or bromide, the acid and iodine being now added alternately. Hexamethylene and the ethyl and methyl hexamethylenes, which are obtained with great difficulty from their halogen derivatives by ordinary reducing agents, are produced in yields of from 70 to 75 per cent. of the theoretical yield when the corresponding oxides or bromides are treated in this way.

To maintain the reduction of ferrous solutions, or prevent their oxidation, William S. Myers adds 10 per cent. solution of ferrous sulphate. The acid under these conditions liberates hydrogen very slowly, and yet fast enough to nullify the oxidizing action of the air, even when the solution is exposed in an open beaker. The author has found that ferrous solutions thus made up will keep for more than a month in a practically unchanged condition, while solutions heated for protection by a number of other methods were very largely ferric at the end of that period.

A method based upon the color reaction given by the alkaline molybdates is recommended by A. Jalles and F. Neurath as affording a simple and rapid means for estimating silica in water, and as being applicable to very small quantities of liquid. These molybdate salts give with silica in the presence of free nitric acid complex yellow compounds, similar to those which they form with phosphoric and arsenic acids. Among the alkaline silico-molybdates the silico-molybdate of potassium is most soluble, and in aqueous solution has a pronounced yellow color, the intensity of which increases with the temperature, and attains its maximum toward 70° or 80° C.

Of two recent methods for the analysis of glue, that of Stelling looks to the estimation of the nongluey material, and that of Fels to the estimation of the viscosity of a solution of glue. In Stelling's process alcohol at 96° is added in small quantities at a time to a solution of glue (one part of glue to four parts of water) while constantly stirring, and the proportion of non-gluey matter is determined by evaporating down an aliquot part of the alcoholic solution and weighing the residue. This process is found by Richard Kissling to have a certain very small value, especially when we have to deal with products of superior quality, products containing substances soluble in alcohol, in quantities much smaller than are present in ordinary glues. Fels's method of determining the viscosity—which is done with an Engler viscosimeter—can also give very useful indications, but here again certain reservations must be made. Mr. Kissling has found that solutions of glue undergo in time modifications in fluidity. A process described by the author, while somewhat more complicated than these, is claimed by him to merit more confidence in determining the value of a glue. It consists in measuring the consistency of the jelly formed by one part of glue and three parts of water.

The method of M. Goldschmidt for the production of high temperatures, and for preparing metals difficult of fusion free from carbon, depends mainly upon the high temperature (3,000° C.) developed in the combination of aluminum and oxygen. In explaining his method the author says that the principal difficulty in utilizing the temperature named lies in the regulation of the reaction by means of which the work is performed. He observes, further, that there is no need of heating the whole of the reacting mass up to the temperature of ignition; "it suffices to cause combustion at one particular point. But in this there is still a practical difficulty to be overcome," which in the preparation of metallic chromium, starting with a mixture of oxide of chromium and powdered aluminum, may be easily surmounted by placing at a convenient point a small quantity of a mixture of aluminum with a more easily reducible oxide, or, better still, with a peroxide. This method has the great

advantage of making possible the preparation of pure metals free from aluminum. The process can be applied simply as a source of heat for welding, soldering, etc., or, by utilizing the reducing power of aluminum, in the preparation of pure metals and of alloys. If only a moderate heat is desired, the reacting mass may be diluted by the addition of some inert mixture, as of aluminum and some cheap oxide, to which may be added lime, magnesia, etc. Nearly all the metals can be reduced by this method.

Ferrocyanide of potassium is recommended by M. Lucas as a test for the estimation of copper, with the solution of which it gives a reddish-brown coloration. If the solution is weak, the precipitate will cool very slowly, and the solution will be left clear but red. This coloration is represented to be ten times more sensitive than that given by ammonia, and it can be utilized for the estimation of small quantities of copper.

Atomic Weights.—The place of the newly discovered elements of the atmosphere in the periodic system has been studied by James Lewis Howe, of Washington and Lee University. Without coming to a positive conclusion, the author gives reasons for regarding the three elements argon, neon, and helium as transition elements between the halogens and the alkali metals, and finds that there is sufficient space for them, as well as for the other new elements, krypton, metargon, and xenon, in Group VIII—the group of iron, cobalt, and the platinum metals. An additional point in favor of the view that helium, neon, and argon are true elements, implicitly brought out by Ramsay in his address before the *Deutscher chemischen Gesellschaft*, is furnished by Döbereiner's law of triads. It was this idea that led Ramsay to his search for neon. "Like so many other groups of elements, the three elements helium, neon, and argon agree with the relations pointed out so long ago by Döbereiner, and this indicates that the elemental nature of these gases is not different from that of other elements."

T. W. Richards and A. S. Cushman, after a careful revision of the atomic weight of nickel as obtained in different determinations, and comparison particularly with values found by Winkler and Zimmermann, give the number as 58.706, and as the average of their own determinations and those of the two other authors 58.70.

From experiments with the carbide and sulphide, M. Henri Gautier had determined the equivalent of boron as very near 11. In subsequent experiments, using the bromide and chloride, which had been prepared in as perfect purity as possible, and treating them with nitrate of silver, he obtained the number 11.016.

Mr. Harry C. Jones has called attention to the agreement between the values of the atomic weight of praseodymium and neodymium found by three experimenters—Carl von Schele, Brauner, and himself—working simultaneously but independently, and to the difference between their results and those of Von Welsbach, which were the only determinations on record to 1897. Brauner and Jones used American material for their determinations, and Schele monazite furnished by Clève. The values obtained by Welsbach were 143.6 for the atomic weight of praseodymium and 140.8 for that of neodymium. Those obtained by Jones, with which those of Brauner and Von Schele very nearly agree, were 140.5 for praseodymium and 143.6 for neodymium. "The atomic weight of praseodymium found by Von Schele and myself," says Mr. Jones, "is a little lower than Von Welsbach's atomic weight of neo-

dymium, but the atomic weight of neodymium as found by Brauner and myself is identical with Welsbach's atomic weight of praseodymium. These three pieces of work, then, make it certain that the original determinations of Von Welsbach are not free from error; and, indeed, they were published as only tentative, and are not described in any detail."

Chemical Analysis.—Prof. J. Vertress calls attention to some difficulties attending lighting by acetylene, among which are the impurities in the calcium carbide from which it is derived, and the want of homogeneity of the substance, whereby it is necessary to test and examine several samples in order to get a mean value. Among these impurities are sulphur, phosphorus, and nitrogen, from which it results that the acetylene will be contaminated with sulphureted hydrogen, phosphureted hydrogen, and ammonia. It must therefore be purified to the same extent as coal gas, for fear that its use in closed places might lead to accidents. Another drawback to the use of acetylene is its liability, after burning a considerable number of hours, to give a smoky flame. This is caused by the burners attaining a temperature higher than that of the decomposition of acetylene, whereby the gas is decomposed into carbon and hydrogen. The author has also observed deposits of finely divided carbonlike soot in acetylene-gas pipes and a liquid condensation of carbides of hydrogen in the generators, which has to be removed by siphons. Still another inconvenience is the formation of a fog in closed places after a longer or shorter interval, which is the result of decomposition of the gas, with deposition of the carbon and the formation of watery and ether vapors. As the presence of hardly noticeable quantities of phosphureted hydrogen may make the acetylene spontaneously inflammable, a rapid and exact method of gas analysis is needed to estimate the quantity of that gas that may be present. For this purpose Walther Hempel and Leopold Kahl, after experimenting with a number of reagents, recommend sulphate of copper in sulphuric solution as the best. The gas is measured in a gas burette filled with mercury, and is transferred thence to another burette filled with mercury and 3 cubic centimetres of cupric reagent saturated with acetylene. After shaking for three minutes, the volume of unabsorbed gas is measured; a quarter of this volume represents the phosphureted hydrogen present.

The by-products obtained from the distillation of coal in retort coke ovens, as described by Mr. J. D. Pennock, are tar, ammonia, and gas, from which benzene and cyanides may be recovered. All the by-products vary in quality and quantity with the composition of the coal, and are also more or less affected by the temperature to which the oven is heated. Generally speaking, the quantity of tar and ammonia obtained is in direct proportion to the percentage of volatile matter in the coal. A bituminous coal containing 17 per cent. of volatile matter will yield 13½ pounds of ammonia, figured as sulphate, and 30 pounds of tar, whereas one containing 37 per cent. of volatile matter will yield 27 pounds of ammonium sulphate and 110 pounds of tar. From the large number of ultimate analyses which the author has made of coals experimented upon in ovens, he finds that coals having the highest percentage of hydrogen over and above that necessary to combine with the oxygen are the ones that make the best coke, and yield the best quantity of by-products; in other words, a coal containing a high percentage of oxygen will not

produce good coke, nor will it yield much tar and ammonia. If the analysis shows water of constitution 5 to 10 per cent., indicating the character of a lignite, the yield of by-products will be small and the coke of poor quality; or, having at hand the proximate analysis of a coal found in the bituminous regions, one may judge very clearly the yield of by-products per 2,000 pounds of coal by referring to a chart subjoined to the author's paper.

In a paper contributed to the Chemical Society of England, reporting progress in his investigations of Moorland waters and bearing upon their acidity, William Ackroyd spoke of the importance of that quality, which has been associated with plumbo-solvent action, inasmuch as moorland waters are consumed by more than 5,250,000 people in England. The author differentiated between organic and inorganic acidity, and described a method of ascertaining the ammonia in the water. This method consists of titration with $\frac{N}{100}$ alkali, using phenolphthalein as indicator; and aspiration of air free from carbon dioxide through another portion, and a second titration for the residual acidity. Data were given showing the loss of acidity due to diffusion in observations extending over one hundred and eighty-one days. Comparisons were made proving that the differences in acidity in waters from various gathering grounds were due to differences of gradient. It was finally shown that the organic acid in solution, always assumed to be humic acid, is of lower equivalent than that of the lowest humic acid known. In the discussion of the paper Prof. Dewar said that the plumbo-solvent action of the water supplied to Sheffield, Bradford, and Huddersfield had been overcome by the addition of finely precipitated carbonate of lime to the reservoirs, with the result that the quality of the water was improved, both by the removal of the acidity and also indirectly by precipitation of the dissolved peaty matter.

From a long series of researches on specimens of air taken from high mountain regions and over the sea, M. Armand Gautier finds that free hydrogen is present in the proportion of about 1.5 volume to 10,000 volumes of air. The proportion of hydrogen is considerably greater in the specimens of pure air than in specimens taken from the neighborhood of towns, while the proportion of combustible carbon compounds is considerably less.

The incandescent mantles for gas burners are composed almost entirely of oxide of thorium, ThO_2 , to which has been added a small quantity of oxide of cerium, varying from 0.5 to 2 per cent. With the exception of small quantities of lime, they contain only traces of impurities, such as nitrate of thorium and oxides of zirconium, neodymium, lanthanum, and yttrium. By a series of experiments with photometric measurements, of which he gives the results in detail, E. Hintz has satisfied himself that these impurities have no appreciable influence on the luminous power of the mantle, and that, therefore, not much notice need be taken of them in the analysis of incandescent bodies.

Certain mineral waters exist, though they are very rare, which are relatively very rich in fluorine. The most interesting example is that of the waters of Gerez, in the north of Portugal, which are perhaps unique in Europe. An analysis by Charles Lepierre determines the proportion of alkaline fluorides (probably of sodium) as from 22 to 25 milligrammes per litre, which is

equivalent to from 10 to 12 milligrammes of combined fluorine. The existence of fluorides in the residue can be discovered positively by evaporating half a litre of Gerez water in a platinum dish. The analytical detection of fluorine can be made by the ordinary method of heating the residue from the water with sulphuric acid and showing the corrosion of glass; by Lannes's or Carnot's method; if silica is present, by the formation of SiF_4 ; or by the formation of crystals of fluosilicate of sodium, the little hexagonal prisms of which are characteristic. The last reaction is very sensitive.

The committee of the British Association on a uniform system of recording the results of the chemical and bacterial examination of water and sewage recommend in their report that results of analysis be expressed in units per 100,000 except in the case of dissolved gases, when these should be stated as cubic centimetres of gas at 0°C . and 760 millimetres in 1 litre of water. This is in accord with the determination of a former committee of conference with the American Association. The committee suggest that the results in the case of all nitrogen compounds be expressed as parts of nitrogen over 100,000, including the ammonia expelled on boiling with alkaline permanganate, which should be termed albuminoid nitrogen. The nitrogen will therefore be returned as ammoniacal nitrogen from free and saline ammonia; nitrous nitrogen from nitrites; nitric nitrogen from nitrates; organic nitrogen (either by Kjeldahl or by combustion, but the process used shall be stated); albuminoid nitrogen. The total nitrogen of all kinds will be the sum of the first four determinations. The committee are of opinion that the percentage of nitrogen oxidized—that is, the ratio of 2 and 3 to 1 and 4—gives sometimes a useful measure of the stage of purification of a particular sample. In raw sewage and in effluents containing suspended matter it is also desirable to determine how much of the organic nitrogen is present in the suspended matter. The report further gives suggestions concerning the manner of collecting samples.

M. Balland has communicated to the French Academy of Sciences the results of his investigations of the chemical composition and alimentary value of the principal fruits, including grapes, oranges, filberts, pomegranates, currants, walnuts, figs, bananas, olives, dates, apricots, almonds, cherries, quinces, strawberries, raspberries, medlars, peaches, pears, apples, and plums. All these fruits contain when ripe from 72 to 92 per cent. of water. In the dried or partly dried fruits of commerce the proportion of water rarely exceeds 35 per cent., and is frequently below 10 per cent. in almonds and nuts. In pulpy fruits the nitrogen represented by vegetable albumen ranges from 0.25 per cent. in the pear to 1.45 per cent. in the banana; in the seed fruits (almonds and nuts) it is higher, amounting to from 15 to 20 per cent. in the dried nut. The fatty matters, with all the products soluble in ether (essential oils, resinous and coloring substances), are generally in smaller proportion than the nitrogenous substances; the only exceptions are olives, almonds, and nuts, in which the oil predominates (58 to 68 per cent.) when they are dry. The ashes, some of which, as those of figs, pears, and plums, show traces of manganese, are in considerable quantity. So also is the inert cellulose, which is in notable proportions only in quinces and medlars. Acidity reaches its maximum in currants and raspberries (1.25 per cent.). Sugar and the substances called extractive, such

as starch, dextrines, pectines, gums, saccharifiable cellulose, and organic acids, represent, with water, the larger part of the elements obtained in the pulpy fruits. The sugar, which is all assimilable, performs its part in alimentation. The fruits that contain most of it, like bananas, dates, and figs, constitute real hydrocarbon aliments. The extractive matters also act similarly to sugar, but in a less degree, their coefficient of digestibility being not quite so high. With a few exceptions, M. Balland finds the fruits not very nutritious, and suitable to be regarded rather as condiments.

M. F. Parmentier has shown that the effects produced upon glass, hitherto supposed to have been caused by fluorides, in certain mineral waters are due to a deposit of silica. No trace of fluorine has been detected in numerous analyses of mineral waters.

The adulteration of sumach was illustrated by Mr. S. J. Pentecost in the reading of a paper before the Nottingham section of the British Society of Chemical Industry. By means of strong nitric acid the true sumach leaf may be dissolved out of a mixture. By aid of the microscope the various constituents of the residue can be referred to their true origin. The appearance of the leaves of the adulterants generally used is very characteristic, they differing from one another and from the genuine plant by the shapes of the hairs attached to the leaves and by the shape and number of the stomata. The author pointed out that, notwithstanding the introduction of synthetic dyes, the subject is of interest to the dyer as well as to the tanner.

The examination of air and its dust has enabled M. A. Gautier to establish the fact that iodine is really found in the air. It is completely fixed in the organic state in the matter caught by plugs of glass wool. Sea air contains about thirteen times as much iodine as that found inland. Aërial iodine appears thus to come principally from the sea, which is continually giving up a portion of its iodized elements in the form of aqueous dust. M. Gautier claims to have proved the complete absence of alkaline or alkaline-earthly iodides in the air, even in several hundred litres collected on the surface of the ocean. So that not only the presence of iodine in appreciable quantities in sea water still remains uncertain, but even the existence of this iodine in the form of mineral iodides does not rest on any direct proof. M. Gautier concludes from his investigations that the water of the open sea, or at least of that at or near the surface, does not contain a trace of alkaline or earthy iodides; that iodine is always found in easily weighed quantities, but that it exists entirely in the organic or organized state—a circumstance which has been overlooked till now, and to which are due the contradictory opinions that have been expressed as to the quantity and even as to the appreciable presence of iodine in sea water. For the origin of this iodine the author looks below, whence it must come in the form of iodized springs or volcanic emanations, or by solution of submarine rocks. Numerous terrestrial iodized springs are known, and there is no reason why they should not be supposed to exist in the ocean. Submarine volcanic eruptions have been observed in every ocean, and their products have long been known to contain iodine; and iodine exists in granitic and calcareous rocks, which may become dissolved in the sea water. This mineral iodine dissolved in the deepest parts of the sea disappears in the upper layers, where the action of light permits organization and life.

M. Gautier has found iodine existing in appreciable quantities in terrestrial and fresh-water algæ, where it can only come from the water in which these algæ live. Analyses of the waters of the rivers Seine and Marne have revealed the presence of small quantities of iodine, partly soluble. This, the author assumes, is derived partly from the air, but principally from the earths and rocks over which the water flows. "The importance of the estimation of small quantities, both in air and water," M. Gautier says, "of an element so active as iodine admits of no doubt; this body is indispensable to organized life, but the smallest proportions suffice."

Prof. James Dewar affirms that liquid air can be of great service in the qualitative analysis of mixed gases. He further describes an apparatus which he has used for ascertaining the proportion of any gas in air which is not condensable at about -210° C. under atmospheric pressure or is not soluble in liquid air under the same conditions. With this apparatus he has found one part of hydrogen in a thousand of air just detectable in the form of an uncondensed residue. It is possible also to condense all the constituents of coal gas and to separate them after liquefaction by fractional distillation, except carbonic oxide and hydrogen; and ultimately the carbonic oxide is condensed, leaving the hydrogen alone in a gaseous state. Experiments with the gases of the spring at Bath proved it possible to separate helium from other gases when it is present to the extent of only one part in a thousand. Argon, which is present in the proportion of 1.4 per cent., condenses with the nitrogen. But if the liquid be allowed slowly to boil away a residuum may be obtained containing about 7 per cent. of argon. Argon when frozen solidifies to a perfectly clear ice. As to behavior toward the Röntgen rays, argon appeared relatively more opaque than either oxygen, nitrogen, or sodium, and on a level with potassium, chlorine, phosphorus, aluminum, and sulphur. By filling the annular spaces between the walls of several similar vacuum vessels, such as Prof. Dewar uses in his extremely low temperature investigations, and exhausting them all to the same low pressure, large differences in the thermal isolation were observed. Silica, charcoal, lampblack, and oxide of bismuth all increase the insulation to four, five, and six times that of the empty vacuum space; and generally the presence of certain finely divided solids in the high vacuum space improves the heat insulation, while in the presence of air the same bodies facilitate the transference of heat. But "in no case was the diminution of the influx of heat in the case of the use of finely divided solids ever so effective as a high vacuum in an empty tube, the glass surfaces being silvered." These experiments show that liquid air can be conveniently used to study many important problems of heat transmission. When cooled to the temperature of liquid air the photographic action of both the incandescent lamp and the Röntgen radiation was reduced to 17 per cent. of that exerted at the ordinary temperature, whereas the ultra-violet radiation was reduced to about 6 per cent.

Miscellaneous.—An instance of the occurrence of copper in the plant world is noticed by G. B. Frankforter in the case of an oak tree in Minneapolis, Minn., in which, on cutting up the trunk, a considerable quantity of bright copper-colored powder was noticed disseminated through the pores of the wood. A quantity of the powder was examined, and was found to be pure metallic copper. The different parts of the tree were examined preliminary to analysis, and certain of

them were found to be thoroughly impregnated with this granular copper powder, some of the granules being so large as to take on the form of flakes. The larger ones were partly rolled up, so as to fit in the irregular pores of the wood. An analysis of the powder showed that it consisted of 95.01 per cent. of copper. Microscopic examination showed that only the outer annual rings contained an appreciable quantity of the metal, while the earlier rings showed only a trace under the microscope, and those nearest the heart none on analysis. This distribution is unexplained. The origin of the copper is undetermined, but native copper occurs in the soil; yet if it was assimilated from the soil it should have been found in all the rings, and not chiefly in the outer ones. The fact that the copper was found in the metallic state raises the question of the form in which it is found in plants generally.

A case of poisoning reported upon by L. Barthe was said to be traced to an enameled saucepan of the familiar kind—white inside and deep blue outside. While some French enamels have been found to contain as much as 52.51 per cent. of oxide of lead and 3.74 per cent. of arsenic acid, the enameled utensil in question in this case did not contain either of these substances, but did contain large proportions of silica, tin, and aluminum, and small quantities of zinc, lime, and potash, with traces of iron and cobalt. The author was therefore of the opinion in this case that the enamel was not to blame.

At the meeting of the British Association Prof. Hanriot, president of the chemical section of the French Association, communicated a short account of the excretory products of plants, in which he discussed the mutations of nitrogen in the vegetable kingdom, as illustrated by his own observations of the occurrence of asparagine among the secretions of plant roots. When passed into the soil the product would in all probability be oxidized to nitrates, and thus become directly available for plant life.

The subject of the properties of soaps was brought up at a meeting of the Nottingham, England, section of the Society of Chemical Industry in a paper, by F. J. R. Carulla, on The Function of Boric Acid in Soap. The author found that boric acid was of great value to destroy alkalinity, but that it could not remain in the free state in the wash water when the soap is put to use. It can have no antiseptic effect, but is invaluable for the introduction into the soap of antiseptics that require freedom from alkali. The chairman of the meeting, Mr. James O'Sullivan, said that the matter was of some importance, as boric acid in 2-per-cent. solution was used for the eyes, and of course a boracic soap would not have the effect of this solution. Carbolic acid would similarly react in the soap, and be rendered inert. Mr. S. J. Pentecost did not find a moderate percentage of alkali—carbonated alkali, not caustic—in a soap injurious to the skin. In answer to questions, Mr. Carulla said that an addition of so much as 5 per cent. of boric acid would make the soap difficult to lather. Idiosyncrasy entered into the question of the use of soap as well as into other things. Some people could use a soap that would be very irritating to others. The object of using an antiseptic soap was to get rid of disease germs and prevent their transmission from one person to another. With the increasing use of superfatted soaps for toilet purposes, and the fact that disease germs can live and multiply in oils and fats, it is quite likely that much disease is

transmitted from one person to another by using the same tablet of soap. This could not happen with a genuine antiseptic soap. Then, again, disease germs are washed off the skin and carried into the water. They will remain there in long contact with the soap solution, which, if strong enough, will put an end to their future power for harm. Mr. Kipping, F. R. S., said that it was easy enough to render extensive surfaces of the skin, such as the hands, antiseptic even with plain water; but for such places as under the finger nails, which could not be readily dried, and might form nests for bacteria, the resulting prolonged contact with the solution of an antiseptic soap was obviously a great safeguard.

The disinfecting power of common soap having been demonstrated by the experiments of Koch and others, the investigation has been continued by M. Serafini, of the University of Padua, in experiments to determine the exact condition in which the solution of soap is effectively active. M. Serafini concludes that soap, whether of soda or potash, has a well-marked disinfecting power, which does not depend only on the action of the alkaline base, whether combined or not with fatty acids, but results from the saline combination which takes place. The free alkalinity of soaps is generally too weak to produce a disinfecting action. The activity resides in that part of the soap which is soluble in cold water. Substances that precipitate soap diminish proportionately the disinfecting power of the solution, and this power is likewise diminished when the solutions are in a medium rich in carbonic acid. Increase of temperature favors the disinfecting power of soap solutions, both through the direct effect of heat and by increasing the proportion of the soap dissolved. The disinfecting power of soap being related to its constitution as an alkaline salt of a fatty acid, that power is diminished in commercial soaps by whatever diminishes the proportion of those salts in them, as by the presence of water and foreign substances. This power is consequently reduced in resinous soaps. In laundries the disinfecting power of soap is neutralized to a considerable extent by the presence of albuminoid matters in the goods, which prevent its penetrating the pores. Hence it is necessary to take account of the solubility in soap of the soiling matters. Soft soaps are weaker in operation by the facility with which they absorb water, and in colored soaps the disinfecting power is weakened by the presence of the coloring matter. The author did not himself make any experiments with soaps which had been charged with disinfectants, but observers generally agree that the soaps called disinfecting are not more efficacious than common soaps. The disinfecting substances sometimes contribute by their action on the soap to decompose it and diminish its power. Above all things, the soap ought to be pure and to contain as little water as possible.

An apparatus for the industrial production of ozone has been devised by M. Otto, of Paris. It is claimed to be practical, and to avoid the difficulties heretofore encountered in preparing this substance on a large scale.

An inherent fault in all acetylene generators is the after-formation of gas which takes place when the direct contact between the carbide of calcium and the water has ceased. This generation is due to the action of the residual water contained in the pores of the carbide, to the condensation of water on the surface of this carbide, and to the absorption of aqueous vapor. Measurements of the quantities of gas liberated

by a definite quantity of carbide, made by F. Wolff, point to considerable risks of explosion as being incurred by the use of small generators, and of table lamps in particular—a danger which can be avoided in large apparatus by employing a reservoir of sufficient capacity to hold the excess of gas without undue compression. One of the most effective methods of obviating this danger of explosion is that of Münsterberg, in which a valve closes all communication between the carbide reservoir and the water after the former has been raised. The after-formation of gas is therefore no longer produced, except by the water contained in the pores of the carbide. Further, in Münsterberg's apparatus the gas reservoir is of large size, so that the proportion of air introduced at the same time with a fresh charge of carbide remains below the limit of explosive mixture.

CHILI, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate and a House of Deputies, each elected by the votes of adult male citizens able to read and write, the Senators by provinces and the Deputies in the proportion of 1 Senator to 3 Deputies and 1 Deputy to every 30,000 inhabitants or fraction thereof. The President is elected for five years by a college of electors. Federico Errazuriz was elected for the term ending Sept. 18, 1901. The Cabinet formed on April 25, 1898, was composed as follows: Prime Minister and Minister of the Interior, Carlos Walker Martinez; Minister of Foreign Affairs, Worship, and Colonization, Rear-Admiral Juan J. Latorre; Minister of Justice and Public Instruction, Carlos Palacios Zapata; Minister of Finance, Rafael Sotomayor; Minister of War and Marine, Ventura Blanco Viel; Minister of Industry and Public Works, Emilio Bello Codecido.

Area and Population.—The area of Chili is 293,970 square miles. The population in 1895 was 2,712,145, not including about 50,000 uncivilized Indians. The enumeration was far from complete, and at the end of 1897 the estimated population was 3,049,352. Santiago, the capital, had 256,413 inhabitants on Nov. 28, 1895; Valparaiso, the chief port, 122,447. The number of marriages in 1897 was 18,454; of births, 109,057; of deaths, 88,456. The number of immigrants in 1896 was 2,102, of whom 402 were French, 400 Germans, 365 Spaniards, 274 Italians, 261 British, 179 Dutch, and 106 Belgians. The total number in 1897 was 870. In 1898 the Congress appropriated 616,890 pesos for the encouragement of immigration.

Finances.—The revenue in 1897 was 85,439,021 pesos, and expenditure 84,614,284 pesos. The budget of expenditure for 1898 was 79,931,452 pesos. The revenue for 1899 was estimated at 84,398,357 pesos from ordinary and 9,446,442 pesos from extraordinary sources. The budget of expenditure amounted to 76,349,361 pesos, not including 4,444,444 pesos for the Tarapaca Bank. Of the receipts 22,000,000 pesos come from import duties, 42,000,000 pesos from export duties on nitrate, 317,500 pesos from export duties on iodine, 380,857 pesos from surcharges, 13,500,000 pesos from railroads, 1,200,000 pesos from posts and telegraphs, and 5,000,000 pesos from stamps. Of the expenditures 8,213,190 pesos were for the interior, 1,261,073 pesos for foreign affairs, 441,728 pesos for public worship, 515,790 pesos for colonization, 3,778,120 pesos for justice, 4,504,941 pesos for education, 17,634,197 pesos for finance, 13,800,791 pesos for war, 9,608,273 pesos for marine, and 15,906,075 pesos for public works. The expenditure actually voted by Congress was 94,-

506,312 pesos, an increase of more than 15,000,000 pesos over the previous year, chiefly in the finance department.

The foreign debt at the end of 1897 amounted to £17,734,970, on which the interest charge was £965,680, or 12,158,733 pesos. For the bulk of it the rates were 4½ and 5 per cent. The internal debt, national and municipal, amounted to 26,744,263 pesos.

The Army and Navy.—The law of Nov. 24, 1897, restricts the size of the regular army to 10 regiments of infantry, 8 of cavalry, 5 of artillery, and a corps of engineers, the total strength not to exceed 9,000 men. Under the reorganization of the National Guard accomplished in 1896, every Chilean is compelled to serve, from the age of twenty, one year in the active National Guard, from then until they are thirty in the passive guard, and from then until they are forty in the sedentary. Between 1896 and 1899 there were 512,700 men enrolled in the National Guard. In 1898 there were 16,309 enrolled in the active, 7,301 in the passive, and 5,672 in the sedentary division.

The Chilean navy comprises 5 armor clads, 2 second-class cruisers, 3 of the third class, 11 gunboats, 4 destroyers, and 15 first-class and 4 second-class torpedo boats. The armored cruiser Esmeralda, launched in 1896, of 7,020 tons displacement, carries 2 8-inch and 34 quick-firing guns, and with engines of 18,000 horse power has a nominal speed of 23 knots. The O'Higgins, a British-built belted cruiser, launched in the same year, displaces 8,500 tons, and carries 4 8-inch and 10 6-inch guns, with 34 quick-firing guns, and having engines of 14,500 horse power, is capable of steaming 22 knots. Of the same date is the Ministro Zenteno, a protected cruiser, of 3,600 tons, armed with 8 6-inch and 14 small quick firers, and engine for a speed of 20 knots. The training cruiser General Baquedano, of 2,350 tons, has been completed at Elswick more recently. It is said that the destroyers, launched at Birkenhead in 1896, can make more than 30 knots an hour.

Commerce and Production.—The wheat production of Chili is 28,500,000 bushels, and of other grains about 8,500,000 bushels are grown. Wine is made and exported and fruits and vegetables are prolific. More than 500,000 cattle and 2,000,000 sheep and goats are reared each year. The nitrate deposits, covering 89,177 hectares, are believed to contain over 250,000,000 tons of commercial nitrate. British capital is employed in this industry, the product of which in 1898 was 1,254,000 tons. The annual product of copper is about 45,000 tons; of silver, 160,000 kilogrammes; of gold, 500 kilogrammes; of coal, 11,250,000 tons.

The total value of imports in 1897 was 65,502,805 pesos, reckoning the peso at 76.8 cents; total value of exports, 64,754,133 pesos. The imports of sugar were 5,983,659 pesos; of coal, 4,122,918 pesos; of cattle, 2,756,600 pesos; of bags, 2,440,209 pesos; of Japanese kimono, 2,131,679 pesos; of bleached cottons, 1,805,417 pesos; of petroleum, 1,458,090 pesos; of galvanized iron, 1,292,176 pesos; of cashmeres, 1,221,918 pesos; of candles, 1,176,557 pesos; of tea, 1,046,256 pesos; of woollens, 835,153 pesos; of rice, 824,679 pesos; of timber, 719,247 pesos; of shirts, 610,887 pesos; of iron, 354,592 pesos. The exports of nitrate were 37,461,559 pesos in value; of copper bars, 5,226,199 pesos; of silver, 3,781,125 pesos; of wheat, 2,599,640 pesos; of coal, 1,869,310 pesos; of shoe leather, 1,344,005 pesos; of gold bars and ingots, 905,168 pesos; of barley, 887,573 pesos; of wool, 621,209 pesos; of silver ore, 434,231 pesos; of

copper ore and concentrate, 421,725 pesos; of hides, 218,493 pesos; of nuts, 195,625 pesos. Of the exports of nitrate, Germany takes 39 per cent., France 17.3 per cent., the United States 13.3 per cent., England 11.2 per cent., and Belgium 10.9 per cent.

Navigation.—The number of vessels entered from abroad at Chilean ports during 1896 was 2,193, of 3,315,426 tons; cleared, 2,346, of 3,961,996 tons. The coasting vessels entered had an aggregate tonnage of 6,656,603. The merchant navy on Jan. 1, 1897, numbered 48 steamers, of 25,521 tons burden, and 112 sailing vessels, of 54,754 tons.

Railroads, Posts, and Telegraphs.—The railroads open to traffic in 1897 had a total length of 2,661 miles, of which the Government owned 1,233 miles. The receipts of the state lines, which cost 82,269,660 pesos, were 13,259,607 pesos, and the expenses were 12,878,248 pesos. A railroad is being built over the Andes to bring Chili into communication with the Argentine Republic, and all but 46 miles were completed before 1898, the Chilean section which is already built being 18 miles and the Argentine section being 88 miles.

The post office forwarded 54,537,687 pieces of internal and 5,387,020 of international mail matter in 1896; the receipts were 951,816 pesos, and the expenses 890,658 pesos.

The state telegraph lines had a total length of 9,832 miles in 1898, with 11,200 miles of wire. The number of dispatches that were transmitted in 1897 was 1,255,806. In addition to these, the private and railroad telegraphs had a total length of 2,613 miles.

Political Affairs.—The ministerial crises that have resulted from the successive trials to solve the commercial and monetary difficulties of Chili and the strained relations with the Argentine Republic came faster in 1899 than in any previous year. On Dec. 20, 1898, there was a reconstruction of the Cabinet, Ventura Viel succeeding Admiral Latorre as Minister of Foreign Affairs, and being succeeded in the Ministry of War by Carlos Subercaseux, and Arturo Alessandri taking Señor Codecido's place as Minister of Public Works. A protracted extraordinary session of Congress came to an end on Jan. 31, 1899. The commercial community was relieved from the dread of further issues of paper money before summer, and the rise in the price of copper and other improvements in the economic situation helped to raise the rate of exchange and relieve the commercial depression. The Cabinet after a short time underwent a change, Eduardo Videla Concha becoming Minister of War and Señor Palacio Minister of Public Instruction. On May 24 a new coalition Cabinet was constituted, in which Julio Zegero became Premier and Minister of Foreign Affairs, Carlos Walker Martínez Minister of Finance, and Eduardo Matte Minister of Industry. On June 2 this Cabinet resigned, and on June 27 one composed entirely of Liberals was constituted as follows: Premier, Silva Cruz; Minister of Foreign Affairs, Federico Borne; Minister of Justice, Francisco Heriboso; Minister of Finance, Federico Izarra; Minister of War, Javier Figueroa; Minister of Industry, Daniel Rio Seco. This Cabinet lasted only till Sept. 3, when a new coalition ministry was formed as follows: Premier, Rafael Sotomayor; Minister of Foreign Affairs, Rafael Errazuriz Urmeneta; Minister of Justice, Francisco Heriboso; Minister of Finance, Manuel Salines; Minister of War, Carlos Concha; Minister of Industry, Gregorio Pinochet.

CHINA, an empire in eastern Asia. The Government, as defined in the collected regulations of the Tsing dynasty, is based on the government of the family, and in theory the Emperor exercises supreme paternal authority. The acts of Government are largely regulated by precedents running back thousands of years. The imperial administration is directed by a Cabinet composed of 2 Manchu and 2 Chinese members, advised by 2 delegates of the Hanlin College to watch against contraventions of the dynastic regulations or of Confucian precepts. The highest governing body is the Grand Council, which issues laws and regulations for the empire. Subordinate to the Cabinet are the boards of administration, presided over each by a Manchu and a Chinese. One board supervises the conduct and administration of the officials, another directs the finances, the third enforces the laws relating to the duties and ceremonies of the people, the fourth has charge of military affairs, the fifth of public works, the sixth is the high court of criminal jurisdiction, and the seventh directs naval affairs. The Board of Censors, presided over also by a Manchu and a Chinese, watches over all the other bodies, and reports to the Emperor shortcomings and delinquencies occurring in any branch of the public service. The Tsung-li-Yamen, or Foreign Office, is a modern body, which has conducted since 1861 all affairs with Western nations and with institutions directed by foreigners, such as the Maritime Customs and the Pekin University.

The present Emperor reigns under the name of Kwangsu, signifying "continuation of glory." He is the son of Prince Chun, seventh son of the Emperor Taokwang, and was born on Aug. 2, 1872, succeeded his cousin Tsaichun, who reigned as Tung-Chi, on Jan. 12, 1875, under the regency of his aunt, the dowager Empress Tsu-Hsi, born Nov. 17, 1834, and assumed the Government on March 4, 1889. The Empress Tsu-Hsi was co-regent jointly with another dowager Empress till 1881, then sole regent until the young Emperor became of age and married. Even after that she had a large share in directing the policy of the Government. When the Emperor issued a series of edicts embodying radical and wide-reaching innovations and reforms she emerged from her retirement, and on Sept. 22, 1898, obtained from him an imperial edict whereby he resigned all power into her hands once more. The reform edicts were revoked, and since then she has retained the supreme direction of affairs.

Area and Population.—The 18 provinces constituting China proper have an area of 4,218,401 miles, according to a recent estimate, and a population of 386,000,000. The dependencies of China are Manchuria, with an area of 362,310 square miles, and about 7,500,000 population; Mongolia, area 1,288,000 square miles, with 2,000,000 population; Tibet, area 651,500 square miles, with 6,000,000 population; Jungaria, area 147,950 square miles, with 600,000 population; and Eastern Turkestan, area 431,800 square miles, with 580,000 population. The island of Formosa was ceded to Japan by the peace terms of 1895. Russia in March, 1897, obtained a lease of Port Arthur and Talienswan and adjacent territories on the peninsula of Liaotung for the term of twenty-five years, renewable on agreement. Germany occupied the port of Kiau-Chau, on the coast of Shantung, and obtained from China in January, 1898, a lease of the district for ninety-nine years. Great Britain occupied the naval port of Wei-Hai-Wei in June, 1898, to be held, by the terms of the lease, for as long a period as the Russians shall remain in possession of Port Arthur. The British ob-

tained also a lease for ninety-nine years of territory in Kwangtung, opposite Hong-Kong. France obtained in April, 1898, a lease of the Bay of Kwang-Chau-Wan, opposite the island of Hainan.

The number of foreigners residing in China on Jan. 1, 1897, was 11,667, of whom 4,929 were British, 1,564 Americans, 1,106 Japanese, 975 Portuguese, 950 Germans, 698 French, 439 Swedes and Norwegians, 302 Spaniards, 147 Danes, 120 Italians, 116 Russians, 106 Austrians, 81 Dutch, 68 Belgians, and 6 others. There are 28 ports open to foreigners. The most populous and important are Canton, with 2,500,000 inhabitants; Tientsin, with 950,000; Hankau, with 800,000; Hangchau, with 700,000; Fuchau, with 650,000; Suchau, with 500,000; and Shanghai, with 457,000. About half the foreigners live in Shanghai.

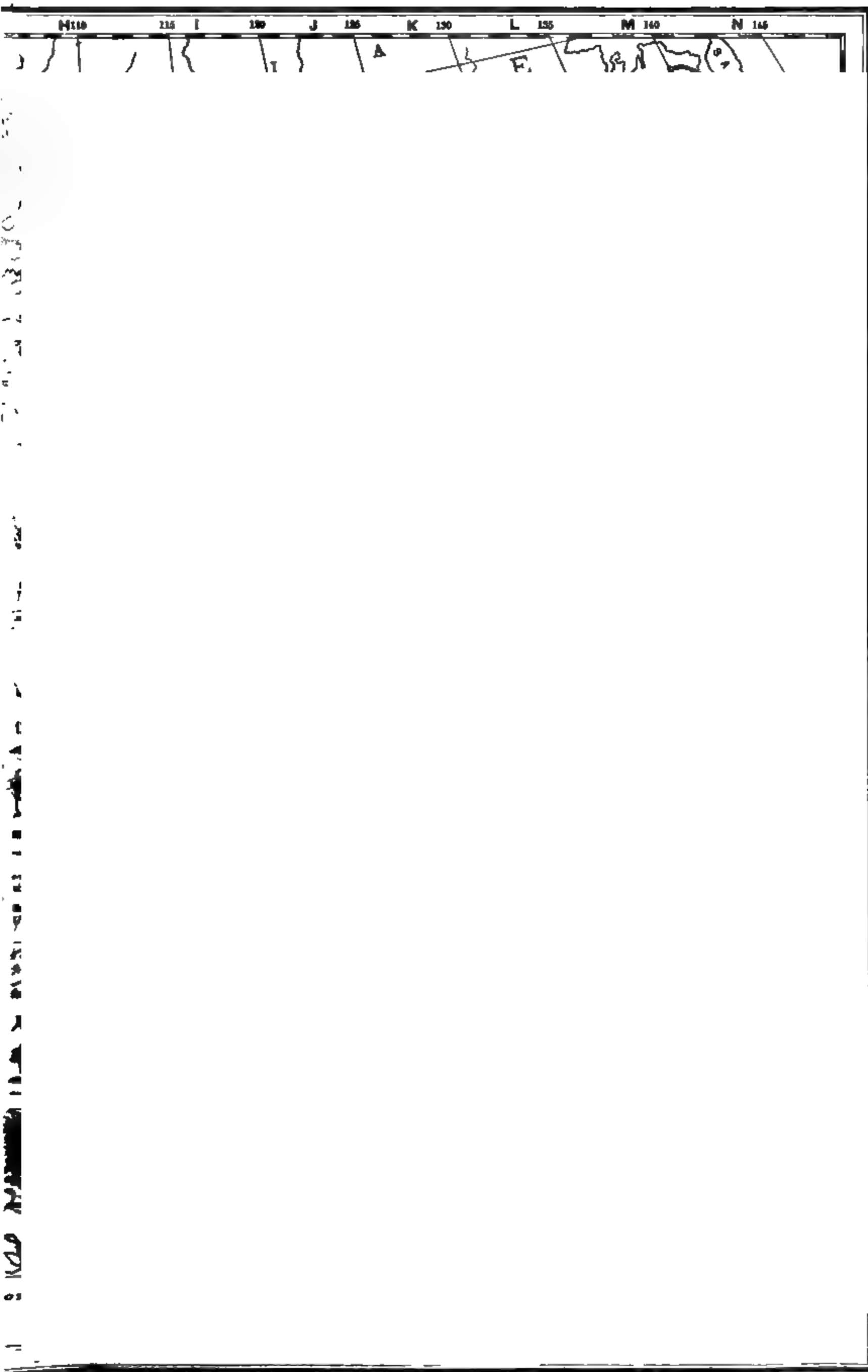
Finances.—The Chinese Government makes no public reports of revenue and expenditure. The Board of Revenue sends each year to each governor a requisition for the amounts to be furnished by his province for the expenses of the imperial administration. In cases of impoverished provinces the Pekin Government sometimes, instead of demanding taxes, grants a subvention. Just before the Japanese war of 1894 the total public revenue of China was estimated at 88,979,000 haikwan taels, of which 25,088,000 taels came from the land taxes paid in silver, 6,562,000 taels from land taxes collected in kind, 13,659,000 taels from the likin and duty on salt, 12,989,000 taels from the foreign maritime customs, 1,000,000 taels from native customhouses, 2,229,000 taels from the duty and likin on native opium, and 5,550,000 taels from miscellaneous taxes. The cost of the imperial administration, including the Manchu garrisons and the Emperor's court, was then estimated at 19,478,000 taels; of the Peiyang squadron and the Board of Admiralty, 5,000,000 taels; of the southern naval squadrons, 5,000,000 taels; coast defenses, forts, and guns, 8,000,000 taels; of the defenses of Manchuria, 1,848,000 taels; of garrisons in Kansuh and the western dependencies, 4,800,000 taels; aids to Yunnan and Kweichau, 1,655,000 taels; interest and repayment of foreign loans, 2,500,000 taels; of construction of railroads, 500,000 taels; of public works, including river dikes, sea walls, etc., 1,500,000 taels; of customs administration and maintenance of lighthouses, 2,478,000 taels; of the administration of the 18 provinces, including cost of troops, 36,220,000 taels; total, 88,979,000 taels, balancing the estimated revenue. The present net revenue of China is estimated at 85,000,000 haikwan taels, equal to \$61,200,000. The system of collection is so imperfect and costly and corruption and speculation are so common that over \$300,000,000 are believed to be collected to produce this revenue. The Maritime Customs department alone is conducted efficiently and economically under the direction of Sir Robert Hart, a British subject. It makes regular reports of the sums collected, which amounted in 1897 to 22,742,104 haikwan taels, including 3,947,607 taels of commuted opium likin duties.

The debts of the Chinese Government amount to between \$250,000,000 and \$300,000,000, for which the revenue of the maritime customs is pledged. The Anglo-German loan of \$80,000,000 issued in 1898 is guaranteed furthermore on the likin taxes of seven provinces. In addition to the Government loans, \$20,000,000 borrowed in 1898 for the construction of the Lu-Han Railroad to connect Pekin with Hankau and \$11,500,000 borrowed for the Niuchwang Railroad are guaranteed by the imperial treasury.

The Army and Navy.—The Chinese generally despise the military profession, and the Man-

chus, though a fighting race, adhere to antiquated weapons and tactics. The imperial Army of the Eight Banners, which still garrisons the Chinese provinces, being descended from the original Manchu conquerors and their Chinese and Mongolian allies, forms a military caste divided into three classes, representing the different races, intermarriage within the army being compulsory. The total number of these soldiers is believed to reach 300,000, of whom from 80,000 to 100,000 are kept under arms, including 37,000 in the garrisons of Manchuria and the Imperial Guard of 4,000 or 5,000 men at Pekin. The rest of the Eight Banners are cantoned in 25 towns of the province of Pechili, in Turkestan and Mongolia, and in certain garrisons of the provinces. The national or Chinese army, called the Green Flags or the Five Camps, divided into 18 corps, under the command of the governors and viceroys of the provinces, is estimated variously between 540,000 and 660,000 men, though the effective strength can not be over 200,000. In case of war or rebellion troops are often raised by enlistment, but they never prove efficient. The irregular Mongolian cavalry and other local and special bodies are estimated to have a nominal strength of 200,000, of whom not over a tenth can be relied upon. The various independent and disjointed military organizations have a total strength of about 300,000 on the peace footing and 1,000,000 on the war footing, but training and discipline, unity of organization, effective and uniform weapons, transport, commissariat, and medical service are totally lacking as judged by modern standards. The trained troops, exclusive of the large body commanded by Gen. Tung-Fu-Sing and the Pekin forces, have been reorganized into two armies, one of 4,750 foot, horse, and artillery, forming two divisions, one to man the Taku forts, the other the forts at Shanhaikwan and Peitang; and one of 11,250 infantry and cavalry, distributed through Pechili province. These troops are armed with Mauser rifles and Krupp mountain and quick-firing guns. The coast fortresses are supported by three armies of the first class, one, under Sung-King, occupying the country on both sides of Shanhaikwan; one, under Yuan-Shikai, behind Taku; and one, under Nieh-Shicheng, supporting Peitang. The force organized by Gen. Yuan, which has its camp at Hsiao-Chan, near Tientsin, consists of 7,000 infantry, 500 cavalry, 1,000 artillery, serving 40 field guns, 18 rapid-fire guns, and 12 mountain guns, and 500 engineers. It is the model corps of the Chinese army, and has been drilled to a high degree of efficiency by Chinese officers trained abroad or in Chinese military schools.

The only effective ships of the Chinese navy left after the war with Japan were the cruisers Chen-Hai and Kang-Chi. In 1897 and 1898 the Hai-Chi and Hai-Tien, of 4,300 tons, were added. English-built cruisers, protected with 6 inches of armor on the sides and 5 inches on the deck, carrying 2 8-inch, 10 4.7-inch, and 12 3-pounder quick-firing guns, and capable of making 24 knots an hour. In 1897 the cruisers Hai-Yung, Hai-Shen, and Hai-Shew, of 2,950 tons, were finished at Stettin, and the destroyers Hai-Lung, Hai-Niu, Hai-Ching, and Hai-Hoha at Elbing, the first of them showing at her trial a speed of 33.6 knots. The naval arsenal of Fuchau, under the direction of the French engineer Doyère, has torpedo boats and a torpedo gunboat of 817 tons under construction. The torpedo catcher Fei-Ying was purchased after the war. There are 34 torpedo boats in the various squadrons and 13 under construction.





Commerce and Production.—China is an agricultural country, in which cultivation in most places is highly intensive. All land is owned by families of cultivators, who pay an annual tax to the Government. No man may sell his farm to a stranger unless there is no member of the family who can purchase it, and when the transfer is made the seller pays 6 per cent. of the price to the Government. The farms are nearly all small, and are cultivated with primitive implements by the aid of oxen or buffaloes. In the south rice is the main crop; in the north wheat, millet, maize, barley, and other grains are grown, also beans and peas; in the western provinces opium is an important crop. The tea provinces are Fukien, Hupei, Hunan, Kiangsi, Chekiang, Anhui, Kwangtung, and Szechuen, in the west and south. The silkworm is raised in all parts of China, but the best silk, and the greatest quantity of it, comes from the province of Kwangtung. Silk-spinning mills have recently been established in Canton and Shanghai. Chinese capitalists started cotton mills at Shanghai in 1890, and since then four foreign companies have been founded. Under a clause in the Japanese treaty of peace it is permissible for foreigners to embark in industrial enterprises in the treaty ports. Coal is found in every province. In Shansi anthracite beds extend over an area of 13,500 square miles, and among them are abundant deposits of iron ore, which have been worked from early times. The bituminous coal fields in the same province are of vast extent. In the southeast of Hunan coal, both bituminous and anthracite, is found over an area of 21,700 square miles. In Szechuen there are enormous deposits which are worked by native methods. The coal in Manchuria is used for the smelting of iron. The coal mines of Kaiping, in the northern part of Pechili, are operated under European supervision by modern machinery, and are connected with the seaboard by a railroad. Anthracite coal is brought into Peking from the mines at Fang-Shanhsien. Coal is found in Kansuh, and in Shantung are several coal fields that the Germans hope to utilize, and one already productive at Poshan. Copper is mined in Yunnan, and has been from early times; also there are mines of tin and silver lead.

The total value of imports in 1897 was 212,235,000 taels. The re-exports amounted to 9,406,000 taels, making the imports for domestic consumption 202,829,000 taels. The total value of domestic exports was returned as 163,501,000 taels. These values include the costs of landing, storing, and selling the imports, and do not include the costs of packing, storing, and shipping the exports nor the export duty. The actual value of the imports for domestic consumption at the moment of landing was only 177,915,163 taels, while that of the exports, with the costs of selling, shipping, etc., added, was 181,769,995 taels. The imports of cotton cloth in 1897 were 44,233,000 taels as officially valued; of cotton yarns, 34,430,000 taels; of raw cotton, 2,260,000 taels; of opium, 27,901,000 taels; of petroleum, 13,209,000 taels; of sugar, 10,226,000 taels; of woollens, 4,558,000 taels; of rice, 4,011,000 taels; of coal, 3,693,000 taels; of fish, 3,445,000 taels; of machinery, 2,717,000 taels; of iron, 2,486,000 taels; of tin, 2,230,000 taels; of ginseng, 2,149,000 taels; of matches, 2,051,000 taels. The exports of raw silk were valued at 44,461,000 taels; of tea, 29,217,000 taels; of silks, 10,790,000 taels; of cotton, 7,393,000 taels; of straw braid, 6,659,000 taels; of hides, 6,154,000 taels; of beans, 5,945,000 taels; of matting, 2,970,000 taels; of wool, 2,390,000 taels; of coal, 2,212,000 taels; of shoes and garments,

2,178,000 taels; of paper, 2,122,000 taels; of tobacco, 1,944,000 taels; of sugar, 1,778,000 taels; of fireworks, 1,746,000 taels; of chinaware, 1,384,000 taels. The quantity of tea exported was 1,532,158 piculs of 133½ pounds, of which 813,494 piculs went to Russia, 244,480 piculs to Great Britain, 207,888 piculs to the United States, 119,723 piculs to Hong-Kong, and 33,327 piculs to Australia. Hong-Kong is the place where vessels from Europe and America discharge goods for China and load up with China goods, but the source and the destination of these goods can not be determined. The extent of the trade with the principal foreign countries and places in 1897 is shown in the following table, giving values in haikwan taels:

COUNTRIES.	Imports.	Exports.
Hong-Kong	90,126,000	60,402,000
Macao	3,515,000	5,894,000
Straits Settlements	2,866,000	1,868,000
East India	20,068,000	1,046,000
Japan	22,564,000	16,627,000
Siberia	204,000	12,488,000
Odessa	8,394,000	8,927,000
Great Britain	40,016,000	12,945,000
Rest of Europe	8,566,000	25,678,000
United States	12,440,000	17,828,000
British America	6,504,000	299,000
Other countries	2,138,000	4,314,000
Total	212,235,000	163,501,000

Customhouses have been established since 1887 in Macao and in the vicinity of Hong-Kong with the object of intercepting the contraband junk trade in opium and other commodities. The trade of Shanghai in 1897 was 132,219,000 taels of imports and 78,395,000 taels of exports; of Kowloon, 13,027,000 taels of imports and 23,024,000 taels of exports; of Canton, 13,730,000 taels of imports and 19,930,000 taels of exports; of Tientsin, 9,169,000 taels of imports and 10,192,000 taels of exports; of Amoy, 11,336,000 taels of imports and 1,712,000 taels of exports; of Swatau, 9,441,000 taels of imports and 3,322,000 taels of exports; of Lappa, 3,515,000 taels of imports and 5,894,000 taels of exports; of Fuchau, 4,342,000 taels of imports and 4,305,000 taels of exports; of Niuchwang, 1,641,000 taels of imports and 5,548,000 taels of exports; of Chifu, 3,685,000 taels of imports and 1,389,000 taels of exports; of Hangchau, 175,000 taels of imports and 3,421,000 taels of exports; of Pakhoi, 2,657,000 taels of imports and 1,502,000 taels of exports; of Kiungchau, 1,465,000 taels of imports and 1,779,000 taels of exports; of Mengtse, 2,394,000 taels of imports and 1,058,000 taels of exports; of the other ports, 2,138,000 taels of imports and 4,314,000 taels of exports. The imports of English gray and white cotton goods have fallen off from 11,037,745 piculs in 1887, valued at £3,767,700, to 9,517,098 piculs, valued at £3,470,200, while American imports have risen from 1,874,274 piculs, valued at £1,095,500, to 4,143,971 piculs, valued at £1,746,800. Half the yarns imported in 1887 came from England and half from India, but in 1897 only 51,298 piculs, valued at £189,400, came from England, while Japan furnished 283,817 piculs, valued at £948,000, and India 1,235,537 piculs, valued at £3,932,100.

The total value of imports into China in 1898 was 209,500,000 taels, and that of exports 159,000,000 taels. The export of tea was 1,538,000 piculs, compared with 2,167,552 piculs in 1888. The silk trade also is declining, but exports of hemp, hides and leather, oils, tobacco, feathers, beans, and other products are steadily growing. The totals given above are not corrected by adding port charges, etc., to exports and deducting

them from imports. The difference between exports and imports is therefore less than these figures show, and when account is taken of the land trade by the frontiers of Tibet and Mongolia, the expenditures of foreign vessels and travelers in China, the remittances of Chinese abroad, amounting to perhaps \$12,000,000 in gold from California alone, and the exports of gold from China, the balance is in China's favor, the net imports of silver in 1898 being 4,750,000 taels. The country does not suffer from scarcity of silver, but there has been an inconvenient dearth of copper cash since the intrinsic value of the copper they contain rose above that of the silver for which they are exchanged.

Navigation.—During 1897 the number of vessels entered and cleared at Chinese ports was 44,500, of 33,752,362 tons, of which 34,566, of 32,519,729 tons, were steamers, and 9,934, of 1,232,633 tons, sailing vessels. Of the total number 21,140, of 21,891,043 tons, were British; 18,889, of 7,819,980 tons, Chinese; 1,858, of 1,658,094 tons, German; 653, of 660,707 tons, Japanese; 464, of 423,122 tons, French; and 333, of 269,780 tons, American.

Railroads.—The railroad in operation for several years from the Kaiping mines to Petang has been built through to Taku, Tientsin, and Linsi, and is being continued to Shanhaikwan. The railroad from Tientsin to Peking, 73 miles long, was opened on June 30, 1897, and since August, 1898, a railroad, 12 miles long, connecting Shanghai with Woosung, has been in operation. A vast railroad system has been for years under discussion, and foreigners have been willing to provide capital on sufficient security, usually coupled with demands for commercial and political advantages. Concessions had already been granted before the beginning of 1899 for over 3,000 miles of railroads in the northern provinces and the valley of the Yangtse-Kiang, to be built at a cost of upward of \$120,000,000. The most important of the projected lines will connect Peking with Hankau, the center of the Yangtse trade, with the prospect of its being continued through to Canton.

Posts and Telegraphs.—The postal service has heretofore been carried on by means of special messengers and by relays of runners under the direction of the military department. On Feb. 2, 1897, an imperial post office was organized under the management of the director of maritime customs. China has since notified the Swiss Government of her adhesion to the regulations of the Universal Postal Union.

Telegraph lines, built primarily for military purposes, connect Peking with the posts on the Russian frontier of Manchuria, with Korea, with Niuchwang, Chifu, Shanghai, Canton, and all the other ports on the seaboard and on the Yangtse river, and by an extension from Canton with Yunnan, joining the Indian system at Manwyne, in Burmah. The line along the Yangtse has been carried through to Chungking, in Szechuen, and into Mongolia. By a connection with the Russian system in the Amur valley there is overland communication with Europe.

Internal Politics.—The reform projects of Kang-Yu-Wei, who obtained an influence over the Emperor in 1898, were crushed at the outset by the Empress dowager, who, fortified by the authority of the Board of Censors, which is independent of the throne, and with the aid of her relative Yung-Lu, afterward made generalissimo of the armies, and the support of all the old mandarins whose posts were to be abolished, practically deposed the Emperor, placed him in

confinement on pretense of his illness, had the most active reformers decapitated, with the exception of Kang-Yu-Wei, who escaped to Hong-Kong by the aid of the British consul at Shanghai, degraded most of the officials who had taken part in the reform movement, and kept the rest silent by the fear of a like fate. This palace revolution was carried out by the aid of the Manchus, and the great posts were consequently given to them rather than to Chinese statesmen, like Li-Hung-Chang. The reformers had received encouragement from the British representative, and hence their defeat and disgrace resulted in the ascendancy of Russian influence at Peking. The offices that the Emperor had abolished under the influence of the reformers were all restored. The provincial and local authorities resumed the powers that had been concentrated in special boards at Peking. The grain tribute was re-established. The right of memorializing the throne was again limited to high officials. The examinations were once more based entirely upon the Chinese classics, instead of partly on modern knowledge. All Chinese newspapers were ordered to be suppressed, and writing for them was made a punishable offense. The new Board of Trade, Manufactures, and Agriculture was abolished. Some reforms, declared to be necessary and beneficial, were promised in vague edicts, which did not define what they were. In the course of a few months it became apparent that the Empress was not in principle opposed to all progress and reform, but that she had checked the sweeping changes sanctioned by the young Emperor because they threatened to convulse the nation. Financial and military reforms had the sanction of the Empress so far as they were possible, nor was she opposed to the introduction of Western methods and science into the national system of education. The edict of the Emperor in favor of an imperial university at Peking was not countermanded by the Empress, who selected a member of the reform party as director of the new university, of which Dr. W. A. P. Martin was made chancellor. The university was started with 6 professors of different nationalities and 380 matriculated students. A Russian school was established at Peking under official Russian auspices. A rebellion in Nganwei, Kiangsu, and Honan in the early part of 1899 required the development of all the local military strength of those provinces. In May an imperial decree was issued requiring local officials to receive and treat with Roman Catholic missionaries on terms of equality, a bishop having the rank of a governor, a priest that of a prefect. In legal proceedings between Christian converts and other Chinese the missionaries are warned against interfering for the protection of their parishioners. Several proclamations against speculation, extortion, and other official abuses show the consciousness of the Empress of the defects of the political organization of China and her desire for a reformation.

The Struggle for Concessions.—The rivalry between the European powers, especially between Great Britain and Russia, which in the previous year was manifested in a struggle for naval stations and lease of territory, was continued in 1899 in a contest for concessions to build railroads, with incidental mining and other privileges. In Manchuria the Russians were actively engaged in constructing their railroad to Talienshan, and improving the harbor there and the military harbor of Port Arthur. Wherever they went forces of soldiers were taken with them. The Germans organized various companies to exploit mines and construct railroads in Shantung.

The German Government claimed exclusive rights in Shantung by virtue of the occupation of Kiaochau, but denied that Great Britain had any preferential rights in the basin of the Yangtse, nor could the British Government assert such rights and at the same time uphold the policy of the "open door," which was advanced when the British desired concessions in the German or Russian spheres. The railroads actually existing in China had a total length of 350 miles, but concessions had been granted before the beginning of 1899 to British investors alone for 2,800 miles. One was for an extension of the existing line connecting Pekin with Tientsin and Shanhaikwan to Niuchwang. The length of the extension is 500 miles, 200 miles of which are north of the Great Wall. As the Russian Government objected to foreign control over this section, the loan of £2,300,000 which was raised to build the extension was secured on the existing railroad from Pekin to Shanhaikwan and on the earnings of the part between Shanhaikwan and Shinminting. The British imperial authorities took the unusual course of recommending this loan to the investing public, thus giving the enterprise a political character. The interest shown by the British Government in the railroad penetrating the Russian sphere of interest roused the resentment of the Russians, who used their influence at Pekin to thwart the English designs in this quarter and to promote the Belgian line of railroad from Pekin into the heart of the Yangtse region. First the Chinese Government, in spite of the protest of the British minister, removed the Chinese administrator general of railroads, and appointed as his successor one suspected of partiality to the Russians. When the negotiations for a loan to build the extension to Niuchwang were about to be concluded with the Tsung-li-Yamen, the Russian minister protested against pledging any railroad in Manchuria to foreign creditors or subjecting it to any foreign control or management in case of default. The Chinese Government gave him the required assurance, and the British financiers agreed to accept as security a lien on the part of the line within the Great Wall and a first charge on the earnings of the rest of the road. The loan was concluded on these terms with the knowledge and assistance of the British Government, to which the Chinese Government gave an assurance that the railroad should never be alienated to any foreign power. In all the concessions the Chinese Government stipulated that after a fixed term the railroads and equipments should become its absolute property without compensation, and in most cases the concessionaires are obliged to surrender to the Government 40 per cent. of their profits from railroads and 25 per cent. of their profits from mines. The Government requires also that schools of instruction in the building, management, and working of railroads be established, and that a certain proportion of the employees shall be Chinese. In February, 1899, the Russian minister protested against the terms of the British loan contract for the Niuchwang extension, which require that the chief engineer shall be British and that a European accountant shall assist in supervising receipts and expenditure. These conditions he held to be inconsistent with the Russo-Chinese agreement with regard to the Siberian Railroad. Subsequently the Russians objected to the earnings of the 298 miles of railroad beyond the Great Wall being pledged to foreigners. Application was next made through the Russian minister for the privilege of constructing a Russian railroad under the same

conditions as in the case of the Manchurian line to connect the Siberian and Manchurian system with Pekin, starting from Niuchwang, or some other point on the Manchurian line between Mukden and Port Arthur. Previous to this Great Britain and Russia, "animated by a sincere desire to avoid in China all cause of conflict on questions where their interests meet, and taking into consideration the economic and geographical gravitation of certain parts of that empire," had reached an agreement with regard to their respective railroad interests in China, its terms being defined in notes exchanged on April 28 between the British minister at St. Petersburg and Count Muravieff. Great Britain engaged not to seek for her own account, or in behalf of British subjects or of others, any railroad concessions to the north of the Great Wall of China, and not to obstruct, directly or indirectly, applications for railroad concessions in that region supported by the Russian Government. Russia, on her part, engaged not to seek for her own account, or in behalf of Russian subjects or others, any railroad concession in the basin of the Yangtse, and not to obstruct, directly or indirectly, applications for railroad concessions in that region supported by the British Government. The contracting parties, declaring that they had nowise in view to infringe in any way the sovereign rights of China or existing treaties, agreed to communicate to the Chinese Government the arrangement that they had concluded, which, by averting all cause of complications between them, was considered of a nature to consolidate peace in the far East and to serve the primordial interests of China herself. In a supplementary note in regard to the Anglo-Chinese extension of the Northern Railroad to Niuchwang, the Russian Government conceded the right of having a British engineer and a European accountant, but the line shall remain a Chinese line and may not be mortgaged or alienated to foreigners. A branch line from Siaoheichau to Shinminting was to be constructed by the Chinese Government, and the Russian Government might support, if it saw fit, applications of Russian subjects or establishments for concessions of railroads which, starting from the main Manchurian line in a southwesterly direction, would traverse the region in which the Chinese line terminating at Shinminting and Niuchwang was to be constructed. Lord Salisbury wished to include in the agreement a provision protecting British goods from differential rates on railroads under Russian control, but Count Muravieff preferred postponing negotiations on this subject. The agreement conceded to the Russians liberty to compete with the section of the British line extending beyond the Great Wall. Their new proposal, although put forward as a fulfillment of the agreement, was calculated to provoke a serious conflict with England, for such a short line from Shanhaikwan to Pekin would not only render the British railroad unprofitable, but would enable Russia to place an armed force in Pekin at any moment. Even after receiving the stereotyped reply that by the decree of Dec. 18, 1898, no more railroad concessions would be given for the present, the managers of the Manchurian Railroad, supported by M. de Giers, the new Russian minister, insisted on the granting of their application as necessary for them and beneficial to China, avoiding the circuitous Tientsin route and facilitating traffic with western Manchuria. The British raised strenuous objections not only in Pekin, but in St. Petersburg, whereupon Count Muravieff decided not to press the matter, and explained that Russia had

only suggested to China that she should agree in principle to such a line being constructed should opportunity arise and Russian subjects petition for a concession. This assurance, when reported in a dispatch to the British minister at Peking, amused the Tsung-li-Yamen. The right of the Russians to construct railroads to Peking or south of Peking as far as the Yangtse basin is not precluded by the agreement. The Anglo-Russian agreement was first suggested by M. Lessar, the Russian *chargé d'affaires* at London, in August, 1898, after the British minister at St. Petersburg, Sir Charles Scott, had said to Count Muraviev that his Government would not possibly acquiesce in an arrangement that left all China open to the railroad enterprises of Russia while excluding England from her share in the railroad enterprises of Manchuria. Count Muraviev disclaimed any desire to block English enterprise anywhere, and denied that the prohibition to China to mortgage the Niuchwang Railroad to foreigners infringed the treaty rights of England, as all foreigners were debarred, even Russians. In discussing the delimitation of spheres for railroad concessions, Count Muraviev drew the distinction that Russia's interest in China was more political, and confined to the north of Peking, and especially to Manchuria, for the protection of the Siberian outlet, while that of England was chiefly commercial, and was more confined to central China and the basin of the Yangtse. As negotiations proceeded he suggested that the limits of the region called the Yangtse basin ought to be defined. Lord Salisbury, who understood it to embrace the provinces adjoining the Yangtse river and Honan and Chekiang, thought too that a precise definition was desirable, but none was given in the agreement.

An English syndicate, associated with Italians, acquired a right in the province of Shansi to construct railways to connect with main lines or with navigable water ways, in order to facilitate the transport of coal from the mines of Luhsien and Pingtingchow, which are about 250 miles distant from the Yangtse-Kiang. In the lower Yangtse valley an English syndicate obtained concessions for a railroad to connect Shanghai with Nankin, 180 miles, with the right of extension to Hsingyan in Honan, 270 miles, and a railroad between Suchau and Hangchow, 120 miles, with the right of extension to Ningpo, 80 miles. The Russo-Chinese Banking Corporation, which is the financial agency through which the Russian Government has carried out its schemes, constructed the railroad running 100 miles southwest of Peking to Paoting, and was pushing it on to Chengting, 160 miles farther, with the right of prolongation westward for 140 miles to Taiyuan. Negotiations were opened for its further continuation southward 330 miles to Si-Ngan-Fu, the capital of Shansi, situated on the edge of the Yangtse basin. The Russian Government gave notice that no concession could be granted without its consent for any railroad to join the Taiyuan section from the south. The British minister in June notified the Tsung-li-Yamen that the Peking syndicate intended to construct several railroads in the southwest of Shansi province, with the object of developing various mines and the petroleum wells in the district of Puchau. One line was to run from Yuhsien to Taiyuan-Fu, and thence to Pingyang-Fu, Puchau, and Tungkwan. The same syndicate announced the intention of making a railroad to connect the Honan mines, by way of Kaifong, with the Yangtse river opposite Nankin, the Siangyang route having been found impracticable. This last

railroad the Tsung-li-Yamen opposed on the ground that it would interfere with the traffic of the Luhan line. The Russians, in rivalry with the British, began to negotiate for a line to Si-Ngan-Fu, the capital of Shansi.

The right to connect Kaulung, the newly acquired British territory on the mainland opposite Hong-Kong, with Canton, 100 miles, was acquired by one of the largest British business houses in China. An American syndicate obtained the concession for an important line, 600 miles in length, to connect Hangkow with Canton, and afterward arrangements were made for the co-operation of this same British firm, which had projected a line from Canton to tap the rich and populous province of Szechuen by connecting its capital, Changtoo, with Wuchow, on the West river, whence traffic can reach Canton and Hong-Kong either by steamers or by a proposed railroad. A railroad connecting Changtoo with the projected American line will have a length of 600 miles. A concession for a line from Peking to Hangkow, 650 miles, was granted to a Belgian syndicate, which was believed by the British to be under Russian and French influence and control. The line, called the Luhan, from the first syllables of the terminal stations, will form an important link in the chain of railroads that will traverse China from north to south and connect with the Siberian line in the north. For its construction a loan of £4,500,000 was obtained from French banks. A railroad, 613 miles in length, running from Tientsin southeast to Shanghai was projected by British capitalists, who obtained a concession for the first section from Shanghai northward. A large part of this route passes through the province of Shantung, in which Germany asserts preferential railroad and mining rights in virtue of the Kiau-Chau concession. It is crossed at two points by projected German lines running from the port of Kiau-Chau to important coal and iron regions. The British concessionaires agreed to share the costs and profits of the entire enterprise with German capitalists, and to acknowledge German jurisdiction over the part of the line passing through Shantung. The Chinese Government, however, was unwilling to relinquish this jurisdiction to the German authorities. The attempts of the Germans to construct the railroads from Kiau-Chau into the interior under the protection of German military guards encountered resistance on the part of the authorities and the people. The arrangement with England in regard to the trunk line was that Germans should build and control not only the Shantung section, but the northern section up to Tientsin, while the British would construct the southern continuation from the southern border of Shantung to Chinkiang, where it meets the existing railroad from Shanghai. Germany came to an agreement with the Chinese Government with regard to the Shantung section, in accordance with which it is to be, like the other sections, a Chinese state railroad, but will be built and managed for China by Germans with a German loan guaranteed by the Chinese Government. A loan of £7,400,000 was raised at 5 per cent. to build the railroad in the course of five years. The German Shantung Railroad Company waived its right to build a line connecting Ichau-Fu with Tsinan-Fu in favor of the Anglo-German company. The Germans have planned a new commercial harbor at Kiau-Chau, which has been declared a free port. When the Manchurian Railroad is completed, the track having already been laid beyond Mukden, Talienwan will also be made a free port.

A project for a British line, 700 miles long, from British Burmah into Yunnan was sanctioned by the Chinese Government, but engineers who examined the ground reported that it could not be built profitably. An easier route was afterward discovered, but the project is not attractive to capitalists, although by extending the line northeastward to Chungking and the head of navigation on the Yangtse-Kiang it would accomplish the political object of connecting with British India the special sphere of interest reserved for Great Britain by the engagement of the Chinese Government that it shall never be alienated to any other power, embracing the provinces now the most productive and having the largest commerce with the outside world, and also those containing the greatest prospective wealth in coal and iron not yet utilized.

In the southern provinces the British come in competition with the French, who had obtained from the Chinese Government an assurance, similar in terms to that given to Great Britain relative to the basin of the Yangtse-Kiang, that no part of Kwangtung, Kwangsi, or Yunnan should ever be ceded or leased to any other power. By the same agreement China granted to the French the right to build a railroad from the frontier of Tonquin to Yunnan-Fu, and also gave to the French Government a lease for ninety-nine years of the Bay of Kwang-Tchao-Wan as a naval station. The French immediately set about the construction of the railroad from Laokai to Yunnan-Fu. In the Chinese province their engineers encountered riotous opposition, and their consulate at Mongtse was destroyed by a mob. Instead of asking exorbitant damages, the French minister simply demanded that the consulate be rebuilt. In contrast to this mild procedure a claim was presented for 1,200,000 taels and the concession of mining rights around Chungking as compensation for the destruction of mission property in Szechuen. The English minister made repeated demands for the removal of the Governor of Kweichau because he failed to punish the murderers of a missionary named Fleming.

The delimitation of the frontier between Yunnan and Burmah was completed by an Anglo-Chinese commission on April 24, with the exception of the Wa territory, which was left till 1900, as difficulties were expected requiring a previous understanding with the Viceroy of Yunnan. The line demarcated, running due east from the Nam-yang river, adds to the northern Shan States of Burmah several hundred square miles that were excluded by the line laid down in the agreement of 1897.

While the discussions over railroad and other concessions were going on marines were sent up to Peking from English, Russian, German, American, and French war ships to guard the legations on the ground that disturbances were feared. After the principal points in controversy were settled these guards were withdrawn.

At the beginning of the year, when the French representative was pressing the Chinese Government for an extension of the French settlement at Shanghai, having already come to an understanding with the British minister by waiving jurisdiction over British property owners in the area in question, the United States minister, supported by his British colleague, protested against the extension of the French concession, urging at the same time the desirability of extending the limits of the general European settlement. The Peking Government consequently withheld the concession that the French desired, and agreed to an enlargement of the cosmopolitan concession

as soon as the opposition of the French and Russian ministers could be overcome. The British Government could not consistently refuse to concur in the French extension, since it had agreed in 1896 to all that the French demanded, including the Chinese *bund* of the native city, the suburb of Passejio, and roads leading some miles inland. Lord Salisbury held, however, that the situation was now essentially different, and that the cession of so much land would constitute an alienation of a part of the Yangtse basin. He finally agreed that the extension should be limited to the suburb of Passejio only, which should be strictly defined. On this understanding the Chinese Government agreed to both extensions. While negotiations over the Anglo-Russian agreement were in progress Sir Claude MacDonald exasperated the Russians and caused a hitch in the negotiations by securing without their knowledge an extension of the British settlement at Niuchwang, the Russians having some time before obtained an extension of their concession at Hankau.

Antiforeign disturbances near Ichau-Fu and at other points in Shantung province were followed by the German occupation of Ngan-Tung-Wei, near the frontier of Kiangsu, whence marines marched to the neighborhood of Ichau-Fu. The disturbances began with the imprisonment of a German priest within the neutral zone. A German naval patrol was afterward fired upon and compelled to retire by Chinese soldiery. The marines simply punished the villages where the patrol was attacked, and then returned to Kiau-Chau. The Chinese, stirred to action by the prompt move of the Germans, increased the military and kept better order in the province thereafter, but the precedent established by Germany gave her the future right to interfere in the interior of Shantung for the preservation of order independently of the Chinese authorities.

The British about the same time began to press for a revision of the treaty ceding the district of Kaulung, opposite Hong-Kong. They threatened to remove the Chinese customhouse from British territory if the demand for more territory were not acceded to. The area leased to Great Britain by the convention of June 9, 1898, was 376 square miles. The neck of land connecting it with Chinese territory is deeply indented by Mirs Bay on one side and Deep Bay on the other, and through the greater part of its breadth of 11 miles the Shan-Chun river forms a natural boundary. The British, however, desired to include the whole valley of the river and the range of hills inclosing it on the north, whose summit would afford a more strategic frontier. They objected also to the Chinese retaining and garrisoning the walled city of Kaulung within the leased territory. When they landed troops preparatory to taking formal possession on April 17, Chinese soldiers made a show of opposing them at Taipo-Fu. The populace had previously burned some sheds erected for the accommodation of the police. The Chinese troops took to flight when the British opened fire, but appeared again in the same place on April 17, the British flag having been raised a day before the time fixed on account of the resistance encountered. The Chinese were shelled when they showed themselves on the heights, and when they hastily retreated the Hong-Kong regiment pursued them. These encounters gave Sir Henry Blake, the new governor of Hong-Kong, ground for demanding the evacuation of the fortified post of Kaulung reserved to China by the treaty. The Viceroy of Canton, instead of complying, strength-

ened the garrison. The right that the Chinese Government had reserved of collecting customs in the leased territory was already repudiated by the British before they took possession. No further disturbance occurred in the annexed territory. Nevertheless, in the middle of May, a force of 2,000 infantry, artillery, and marines took forcible possession of the Chinese city of Kaulung and of Samchun, the principal town in the coveted district north of the river.

The Italian Government through its minister presented, on Feb. 28, a demand for a lease of Sammun Bay, on the coast of Chekiang, as a coaling station and naval base, on the same conditions as in the case of the German concession at Kiau-Chau, with a similar land radius, and including three islands off the coast; also the right to construct a railroad to Poyang Lake, with preferential railroad and mining rights throughout the southern two thirds of Chekiang province. The British minister supported this demand, as well as a request by the Belgian minister for the concession at Hankau of an area at the terminus of the Luhan Railroad. Although two Italian war vessels arrived for the purpose of impressing the Chinese, the Tsung-li-Yamen returned the Italian note with a statement that they refused to receive it, declaring to Sir Claude MacDonald, the British minister, in answer to his note supporting the Italian demand, that they declined to negotiate or to discuss the matter on any grounds. The return of the dispatch brought from Signor Martino, the Italian minister, a peremptory demand that the Tsung-li-Yamen receive the dispatch and enter into negotiations on the understanding that the request for a coaling station and sphere of influence be favorably considered. Four days were given for a reply, no notice being taken of the excuse given that the dispatch had been returned because it was impossible to grant the demands, and a refusal might endanger the relations between the two powers. The Tsung-li-Yamen requested the return of the dispatch, but made no statement regarding the demands that it contained. The Italian Government was persuaded that these would not be granted at present without coercion, and when it learned that its representative had presented an ultimatum demanding an agreement to the request for Sammun Bay it disavowed his action and recalled him from his post. His ignorance of diplomatic methods at Peking had betrayed him into making his demand in a rash and indiscreet manner. His successor, the Marquis Salvago Raggi, pursued the same object more insidiously. The Italian Chamber, which had been kept in ignorance of the design of the Government to secure a foothold in China, was not favorable to a new physical conflict or a demonstration that might lead to one after the Abyssinian failure. The Government in Italy changed at this time, and the Marquis Visconti Venosta was more inclined to caution than his predecessor. He first confined himself to a request for Sammun Bay as a coaling station, without suggesting a claim to the Hinterland. As the Tsung-li-Yamen was not yet ready to make any territorial concession to Italy, which was regarded as one of the less formidable powers, negotiations were continued on a general basis, the minister seeking to obtain opportunities of commercial expansion for Italy similar to the commercial concessions granted to other great powers. Meanwhile Italy kept a strong naval force in Chinese waters. The Tsung-li-Yamen offered to concede to Italians certain mining rights in Chekiang, but would not discuss other demands.

The treaty of Shimonoseki added Chungking, Shashi, Hangchow, and Suchau to the list of treaty ports. The West River Convention with England added Wuchau and Samchui, and the French Frontier Convention Szemao, making 28 in all. When the Russians took possession of Port Arthur one of the first demands of Great Britain was that two new treaty ports should be opened, one of which was Nanning, near the Tonquin frontier, on a tributary of the West river. The Chinese Government would not then agree on account of objections raised by France, but early in 1899 the Tsung-li-Yamen acceded to the proposal. The other was Wusung, which the Government, with the concurrence of the local authorities, made a treaty port in 1899. Yochau, in Hunan, the Chinese Government also opened to foreign trade in 1899. It has also promised voluntarily to open Santuao, in Fokien, and Chingwantao, in Pechili. Funing and Nankin have also been promised after some pressure from outside. In these new treaty ports the Chinese claimed the right to fix the conditions of trade, since they had been opened voluntarily. Even in the older ports the *likin* barrier is often placed at the boundaries of the foreign concessions. In the new ones the exactions were made so onerous that there is little opportunity offered for trading, although from such trade as comes the local officials derive a heavy toll, and for the land desired by foreigners enormous prices and taxes. The opening of the inland waters of China to foreign steam vessels in 1898 has been hedged in by so many restrictions, especially for the protection of the customs revenue, that the concession is almost nullified. For example, no steamer trading with Hong-Kong or any of the treaty ports is allowed to call at any nontreaty port. The opening of the West river, which England secured after a long diplomatic struggle, is of very little benefit to merchants so far. For the development of domestic trade the free navigation of the inland waters has been of less value than in the case of foreign trade, because domestic produce is subjected more often to arbitrary *likin* exactions. The control by the Maritime Customs of the specific *likin* taxes pledged for the service of the Anglo-German loan of 1898 has, like all innovations in China, failed to produce the striking results that were expected. The taxes set apart were the general and salt *likin* of certain ports and districts in the Yangtse valley and the province of Chekiang. The duties in the hands of the customs inspectors have not yielded the amount expected, while the local authorities have imposed fresh taxes on internal trade to make up for their loss of revenue.

CHRISTIAN ENDEAVOR, SOCIETIES OF. The following statistical report of these societies was compiled on Christian Endeavor day, Feb. 2, 1899:

In the United States: Number of Young People's Societies, 28,261; of Junior Societies, 12,535; of Intermediate Societies, 801; of Mothers' Societies, 70; of Senior Societies, 30; Parents' Society, 1.

In Canada: Number of Young People's Societies, 2,921; of Junior Societies, 530; of Intermediate Societies, 13; of Parents' Societies, 2; Mothers' Society, 1.

In foreign lands: Number of Young People's Societies, 8,535; of Junior Societies, 1,078; of Senior Societies, 19; of Intermediate Societies, 11; of Mothers' Societies, 6. Number of floating societies, 120.

Whole number of societies, 54,934; total membership, 3,296,040.

The Christian Endeavor Yearbook, published a few weeks before this enumeration was made, gives somewhat smaller numbers, but the difference is not greater than might be allowed in consideration of the difference in dates of publication. In this work the progress of the Christian Endeavor movement in prisons is especially mentioned as a feature of the work of 1898. The first prison society was formed in the State prison at Waupun, Wis., where nearly a thousand prisoners had been enrolled. At the time of the compilation of the Yearbook there were about 20 such societies, chiefly in the United States.

International Convention.—The eighteenth annual International Convention of the United Societies of Christian Endeavor was held in Detroit, Mich., July 5 to 10, the Rev. Francis E. Clark presiding. The report of the secretary, John Willis Baer, showed that there had been a gain during the year of nearly 2,000 societies, with additions of more than 100,000 members. In America, Pennsylvania had, including the junior organizations, more than 5,000 societies; New York more than 4,000; Ohio and Illinois more than 3,000 each; Indiana and Ontario, 2,000; Iowa, Michigan, Kansas, and Massachusetts, more than 1,500; and California, Missouri, and New Jersey more than 1,000 each. The society had now been organized in Russia, the only considerable country in the world to which it had not been extended. Great Britain had more than 6,000 societies; Australia more than 2,000, being represented in the convention by 2 delegates; India, 454; China, 148; Africa, 156; Mexico, 108; the West Indies, 103; Germany, 101; Madagascar, 93; Japan, 73; Spain, 36; and other countries were represented in the organization by larger or smaller numbers of societies. There were 979 Intermediate Societies, 14,680 Junior Societies, 85 Mothers' Societies, and 49 Senior Societies. More than 100 societies were to be found on ships, including merchantmen and men-of-war; societies in soldiers' camps, prisons, schools of reform, workhouses, almshouses, asylums, institutions for the blind and for the deaf, schools, and colleges; among car drivers and motormen, policemen, traveling men, life savers on the coast, men employed in lighthouses, in large factories, etc., to the number of more than 200. The entire official enrollment of the societies was 55,813, with a total membership of 3,500,000. The report of President Clark represented that in many respects the last year had been the best in the history of the association as regarded advance and increase and the magnitude and character of the convention. The denominational drift had been more decidedly than ever toward the society's interdenominational movement; the growth in foreign lands had never been so encouraging; and the thought of the "quiet hour" of personal communion with God had taken a strong hold of the membership. The adoption of new plans and new methods of work, however, did not mean that the societies would take up every alluring scheme that enthusiasts would present, and many such had been declined. There were many denominational societies that would come into the fellowship of this movement if they only understood that it sought no control and demanded no money or allegiance, but only asked their brotherhood, that they "all be one." No business is transacted at the international conventions, or action taken. The meetings are religious and social, for the stimulation of the religious spirit and the promotion of acquaintance among young Christians of different regions. The headquarters of State, Territorial, and pro-

vincial delegations were so arranged that in each of them local representatives of distant and widely separated communities should be grouped together. Each day's sessions were opened with a "quiet hour," in which, after an address by the leader of the meeting, the rest of the hour was spent in meditation. In the sessions themselves the addresses were followed by ten minutes of "quiet meditation" and prayer. The addresses, constituting the principal feature of the sessions, were on subjects relating to religious life and work and the development of the Endeavor movement and its objects. Besides these daily features, there were occasional conferences—pastors' conferences, junior workers' conferences, officers' conferences, floating society conferences, travelers' union conferences, and other meetings—together with the special "denominational rallies," in which the members of each of the religious denominations whose societies were represented in the convention held separate meetings. Twenty-seven such denominational rallies were held during the present meeting of the convention. Under a change in the constitution of the body in 1898, the presidents of the State, Territorial, and provincial societies are *ex-officio* members of the Board of Trustees of the United Society. They assume no control over local societies or unions, but give counsel when asked, and furnish information and aid in local work. Instead of the passing of resolutions by the convention, it is the practice of this board to prepare upon occasion expressions upon subjects to which it is thought proper to direct attention, to be read in the convention for information. Such an expression, read at the present convention, declared that the admission of Brigham H. Roberts as a member of the House of Representatives of the United States from Utah "would be, and would be generally understood to be, a condonation of the crime of polygamy, a blow at the sanctity of the marriage relation, and a peril to the purity and integrity of the family, upon which our civil and religious institutions so largely rest," and urged his rejection as a measure "in defense of our reputation and character as a law-abiding people."

German (American) Society.—A national German (American) Christian Endeavor Society has been organized, and held its first meeting in Quincy, Ill., July 12 to 16. It consists of 250 societies, with 8,340 members. By denominational classification, 101 of the societies are of the German Evangelical Synod, 23 Presbyterian, 22 Congregational, 45 Reformed, 11 United Brethren, 30 of the United Evangelical Church, and 8 of denominations not specified.

Convention of British Societies.—The annual convention of the British Societies of Christian Endeavor was held in Belfast, Ireland, beginning May 19. Besides the Irish members, more than 200 delegates were present from Great Britain, and also visitors from America, New Zealand, Armenia, and the Congo. Nearly 200 meetings were held immediately in connection with the convention, as well as numerous special services and open-air meetings. The annual report of the union showed that 590 societies, with more than 21,000 members, had been added during the year in the British section—bringing the whole number of societies up to 6,195—and 40 new societies in Ireland. The greatest denominational increase was among the Congregationalists, who returned 138 new societies, and the next greatest among the Baptists. The financial report showed a balance in hand of £250. Schemes for extension work at home, and in India, Ceylon, and

Burmah, were considered at the meeting of the council, and a delegate was appointed to represent the union at the Swedish convention.

COLOMBIA, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 27 members, 3 from each department, and a House of Representatives of 66 members, elected for four years by manhood suffrage in the departments in the proportion of 1 to 50,000 inhabitants. The President is elected by electoral colleges for six years. The President elected for the term beginning Aug. 7, 1898, is M. A. Sanclemente. J. M. Marroquin is Vice-President. The Cabinet at the beginning of 1899 was composed of the following members: Minister of the Interior, Aurelio Mutis; Minister of Foreign Affairs, Felipe Paul; Minister of Commerce and Communications, Pedro Antonio Molina; Minister of War, Olegario Rivera; Minister of Public Instruction, Tomas Herran; Minister of Finance, Luis M. Mejia Alvarez.

Area and Population.—The area of the republic is 513,938 square miles; the population is estimated at 4,000,000, including 150,000 uncivilized Indians. Bogotá, the capital, has about 120,000 inhabitants.

Finances.—The revenue for the biennial period 1899-1900 is estimated at 34,305,000 pesos, and expenditure at 34,000,000 pesos. The revenue from customs is about 24,000,000 pesos. The chief expenditures in the preceding two years were 9,129,500 pesos for war, 4,016,300 pesos for internal development, 4,883,600 pesos for justice, 3,659,300 pesos for interest on the debt, and 3,378,900 pesos for financial administration.

The internal consolidated debt on June 30, 1896, was 5,633,046 pesos. The floating debt amounted to 1,892,110 pesos, which was to be extinguished by a sinking fund of 604,000 pesos a year. The foreign debt, which amounted with arrears to £3,514,442 in 1896, was compromised by the issue of £2,700,000 of new bonds, paying $\frac{1}{2}$ per cent. interest three years, then $\frac{1}{2}$ per cent. more every succeeding three years till the rate is 3 per cent. The paper currency amounted in 1896 to 30,862,352 pesos. The law of 1894 providing for its redemption in gold has not been carried out because there is no gold in the country available for coinage, but 3,000,000 pesos of token silver pieces have been put into circulation. At Panama and Colon the Colombian paper money is not accepted, but the Peruvian silver sol is legal tender.

Defense.—The strength of the standing military force was fixed in 1898 at 1,000 men. The President has authority to summon every able-bodied citizen into military service in case of war.

Commerce and Production.—Colombia is a country of great mineral wealth and of great agricultural resources also, but these are not yet developed, owing to the lack of transportation. The gold and silver production amounts to \$4,100,000 a year. In Antioquia are 3,398 gold mines, alluvial and quartz; in Tolima and Cauca are 1,365 gold and silver mines. There are 32 mines producing \$100,000 worth of emeralds per annum, 14 mines of cinnabar, 7 of manganese. Copper, lead, platinum, quicksilver, and iron are mined also. The Government salt mines at Zipaquirá almost supply the whole country. Coal and petroleum are also found.

The cultivation of coffee is profitable, as the berry grown in Colombia is of fine flavor. Cacao, tobacco, and sugar are staple products of longer standing. The export of rubber is decreasing because the forests are being exhausted by kill-

ing the trees and not replanting. Copaiba trees are also tapped, but not cultivated. Tolu balsam is a cultivated product. Vegetable ivory is exported. The forests produce various dyewoods. Cattle, horses, asses, mules, sheep, goats, and hogs are reared. The total value of the imports in 1895 was 11,528,365 pesos; of the exports, 15,088,406 pesos. Articles of food and drink, textiles, iron manufactures, and hardware constitute the bulk of the imports. The chief exports are coffee, gold, silver and silver ore, tobacco, cacao, live animals, hides, cotton, rubber, dyestuffs, and cabinet woods.

Navigation.—Colombian ports are visited regularly by 15 English, 9 American, 4 German, and 3 French steamers. The number of vessels entered at the port of Barranquilla in 1895 was 261, of 392,573 tons; cleared, 258, of 391,668 tons. The number entered at Panama, Colon, Santa Maria, and Cartagena was 923, of 1,203,110 tons; cleared, 919, of 1,210,629 tons. The ships owned in Colombia in 1896 were 1 steamer, of 457 tons, and 7 sailing vessels, of 1,770 tons.

Railroads and Telegraphs.—The length of railroads in operation in 1897 was 400 miles, while 270 miles were building and 85 miles under contract.

The telegraphs have a total length of 6,835 miles.

The Panama Canal.—The company founded by Ferdinand de Lesseps in 1881 for the purpose of constructing a tide-level ship canal, 46 miles long, across the isthmus of Panama went into liquidation in 1889, having expended 772,545,412 francs, and failed to obtain a loan of 600,000,000 francs for the completion of the work. A new company was finally organized in 1894, and about 3,000 laborers have since been employed on the canal, which it is hoped will be completed in about ten years. The work done so far is only provisional, intended mainly to keep the concession valid while fresh capital is being raised. The sum raised up to June 30, 1897, was 48,420,184 francs, of which 18,976,987 francs were deposited as a guarantee, 25,334,062 francs were expended on the canal, and 4,108,534 francs remained in bank.

The Cerruti Claim.—The Colombian Government finally paid over to the Italian Government £60,000, the sum awarded by President Cleveland to Signor Cerruti as an indemnity for loss and arbitrary imprisonment inflicted upon him by the Colombian authorities, and to compound with his business creditors. The creditors of the Cerruti firm, who demanded 6-per-cent. compound interest in addition to their original claims, were constrained to accept 20-per-cent. interest for the whole time.

COLORADO, a Western State, admitted to the Union Aug. 1, 1876; area, 103,969 square miles. The population in 1880 was 194,324; in 1890 it was 412,198. Capital, Denver.

Government.—The following were the State officers in 1899: Governor, Charles S. Thomas; Lieutenant Governor, Francis Carney; Secretary of State, Elmer F. Beckwith; Treasurer, John F. Fesler; Auditor, George W. Temple; Attorney-General, D. M. Campbell; Superintendent of Education, Helen L. Grenfell. The above named were elected on a fusion ticket of Silver Republicans, Democrats, and Populists. State Engineer, John E. Field; Commissioner of Mines, Harry A. Lee; Regents of the University, W. E. Anderson, C. R. Dudley, O. J. Pfeiffer, William J. Orange, D. M. Richards, Harold Thompson; Chief Justice of the Supreme Court, John Campbell, Republican; Associate Justices, Luther M. Goddard and William

H. Gabbert, Democrats; President Judge of the Court of Appeals, Charles I. Thompson; Associate Justices, Julius B. Bissell and Adair Wilson.

Finances.—The chairman of the Finance Committee of the Senate announced in January, "Colorado is face to face with a deficit of \$200,000." The difficulty seems to be in the fact of a constitutional limit to the percentage of State taxation, together with the fact that there has been no limit to the percentage the counties may levy; hence the valuations are kept low by county assessors. In his inaugural message Gov. Thomas said: "Mulhall, the statistician, gives the total value of Colorado at \$1,100,000,000. I think these figures are too high. My own estimate of the value of the State is from \$600,000,000 to \$800,000,000. The total assessed valuation placed on the State by the county assessors, of a little more than \$190,000,000, is a libel on the State."

The educational and charitable institutions receive almost half of the revenue under these conditions.

In his report for the last biennium the Auditor says: "The State Constitution limits the amount that may be levied for State purposes in any one year to 4 mills on the dollar for the taxable property of the State. From these 4 mills the statutes have diverted into continuing appropriations the following amounts: Capitol building, $\frac{1}{4}$ of 1 mill; maintenance of the following State institutions—State University, Agricultural College, School of Mines, Asylum for the Insane, and the Mute and Blind Institute— $\frac{1}{8}$ of 1 mill each; Normal School, $\frac{1}{8}$ of 1 mill; stock inspection, $\frac{1}{8}$ of 1 mill; or a total of $1\frac{1}{4}$ mill, which leaves but $2\frac{1}{2}$ mills subject for appropriation by the General Assembly for general State purposes. From the date of the admission of Colorado as a State up to the year 1891 there was a limit fixed by the statutes on the amount that might be levied 'for ordinary county revenue.'"

By a statute of 1891, the Auditor says that, while the limit on State taxation remained, "the limit was removed as to ordinary county revenue, and the counties were allowed to raise an additional 3 mills for 'unforeseen contingencies and casualties.'" It is evident that the framers of the Constitution intended that the General Assembly should have control of the finances of the State, but the result shows that when the statute of 1891 was passed the General Assembly abdicated its authority and delegated it to the county assessors. The full effect of the repeal of that clause of the General Statutes which affixed a limit on the amount that might be levied for ordinary county revenue does not seem to have been at first fully appreciated by the county assessors, or they may have been unwilling to evade the plain mandate of the law to assess property at its full cash value. But the enormous reductions in assessments made in some counties seem to have soon convinced the other counties that they must pursue the same course or pay an undue share of the State taxes, and from that time to the present there appears to have been a mad scramble to deprive the State and its educational and charitable institutions of their just proportion of the revenues. This has been accomplished by reducing the assessments throughout the State on an average to less than 30 per cent. of the cash value of property, according to my estimate, and increasing the levies for ordinary county revenue to an extent theretofore unheard of in the history of the State."

The law requires that all taxable property shall be listed at its full cash value—the amount at which it would be appraised if taken in payment

of a just debt due from a solvent debtor—yet with these provisions "as a plain guide to the faithful discharge of their duties, and notwithstanding the large increase in population and rapid accumulation of wealth in the last few years, which are the pride of every citizen of the State, the valuation of the taxable property of the State, as returned by the assessors, has fallen off from \$238,722,417.05 in 1893 to \$192,324,080 in 1898, a net reduction of \$46,398,337.05. Assuming that the value of the taxable property of the State is no greater than in 1893, this indicates a loss to the general revenue of \$104,793.16, and to each of the educational and charitable institutions of the State of over \$9,000 annually."

The amount required for two years for the salaries of officers and employees of the State and the interest on bonds, warrants, and other evidence of indebtedness, which are in the nature of fixed charges, and the payment of which must be provided for, is \$743,952. The total tax of the State, including the levy of 4 mills on the dollar and three tenths of a mill levied for interest on the insurrection bonds, was \$859,458.76 in 1898 and \$831,240.45 in 1899. The fees and other receipts bring the estimated revenue for the two years to \$1,125,346.

The appropriation bill called for \$87,200 for legislative expenses, and the estimates for State institutions amounted to about \$674,899, including deficits, repairs, and new buildings, for the coming biennium. To complete the State canal \$100,000 a year for four years is required, and State roads and bridges called for more than \$200,000 additional.

Revenue Reform.—A convention was held at Colorado Springs, Jan. 25, for the purpose of bringing about reform in the revenue laws. The convention was called by the Colorado Springs Chamber of Commerce; each chamber of commerce in the State was invited to send 10 delegates, and where no commercial body is organized the city councils were requested to appoint delegates. The following were adopted:

"Whereas, From the difference of individual opinion, localities, and for other reasons, wide diversities and inconsistencies exist between the valuation of the different counties and property of very similar kind, class and quality is assigned widely different values in the different counties, and the above condition gives rise to great confusion in collecting taxes, and to great inequality in the bearing of the burden of taxation by the people of the State; and,

"Whereas, The Board of Equalization of the State, as at present conducted and administered, exercises only a partial supervision and power of control over the acts of the various county commissioners and assessors, and a great and growing evil results therefrom; and,

"Whereas, From the decisions of the Board of Equalization, as it is at present constituted, there lies no appeal, and there is no power to revise, control, limit, or qualify the action of said Board of Equalization, all to the great injury and damage of the tax-paying public; now, therefore, be it

"Resolved, That it is the sense of this convention that such immediate action as may be constitutional should be taken by the Legislature of the State of Colorado at its present session which shall require of the State Board of Equalization the exercise of a supervisory function over the assessments of the several counties; shall further, if possible, provide some form of appeal by the several counties from the decisions of said board of the proper courts of the State of Colorado."

A resolution was adopted calling upon the Legislature to take some speedy action looking toward the payment of the excess warrants.

Other resolutions were adopted calling for the taxation of mining property on the same schedule as other real estate, instead of on a fifth of the gross output of the mine; providing for a collateral-inheritance tax; for the appointment by the Governor of a revenue commission, which shall report ways and means of revenue reform to the next meeting of the Legislature; a resolution providing that tax titles should not be issued under five years, and that the rate of interest on same should not exceed 15 per cent. per annum; and one calling for the removal of mortgage taxation.

Education.—By the latest school report at hand, it appears that the school population was 130,362, and the enrollment 100,882, while the State Normal School had 367 students.

The University of Colorado, according to a Denver newspaper, is inferior in equipment to that of any other State in the matter of buildings and library, has a smaller income, and pays lower salaries. Its income is \$66,000; the total value of its buildings is \$150,000; it has no special library building, and only 20,000 volumes in its library, and pays but \$2,500 annually for books. The enrollment this year showed a gain of 15 per cent. over that of 1897-'98.

Mining.—The report of the Commissioner of the General Land Office, made public in November, says of the State: "The localities showing the greatest activity in the mining industry are principally Cripple Creek mining district, in El Paso and Teller Counties (Pueblo land district); Boulder, Clear Creek, and Gilpin Counties (Denver land district); Lake and Park Counties (Leadville land district); and upper San Miguel County (Montrose land district), all in Colorado."

Many new strikes have been reported during the year in these districts, and increased activity in old mines. The daily product of ore from the mines of the Leadville district had reached 2,000 tons in the summer. Strikes in the Cripple Creek district have led to the prediction that the total yield of gold of 1899 will be increased to \$25,000,000. Gold was found in a tunnel that was driven through Pike's Peak to increase the water supply of Colorado City, and a camp called Dawson City has risen on the spot, five miles from Colorado City. New strikes of copper have been reported from the Paradox valley. Whitehorn is spoken of as likely to be one of the great gold camps of the State. That part of the Leadville district southwest and west of the city, across the Arkansas valley and tributary to the Carbonate camp, is said to be a large field of rich possibilities. It is in Lake, Chaffee, Gunnison, and Pitkin Counties.

The Commissioner of Mines recently made a report on the minerals of the State other than gold, silver, lead, and copper, in which he says that Colorado has large deposits of gypsum of great commercial importance.

The value of the product of the principal metals in 1898 was given as follows: Gold, \$27,501,460; silver, \$14,961,587; copper, \$1,204,514; lead, \$3,442,001. The smelters and other ore-reduction works produced \$60,622,415.

The coal product was placed at \$7,500,000, iron at \$5,000,000, and oil at \$1,750,000. Zinc is to be shipped from Leadville to Belgium.

The gold output of the Cripple Creek district in October, 1899, was given as a little more than \$2,000,000.

Other Products.—The following figures, giving the number and value of the live stock in

the State, are from the Denver Times-Sun of Jan. 4: Number of cattle, 766,224; sheep, 1,236,547; hogs, 50,000; horses and mules, 328,000. Value of cattle, \$15,324,480; sheep, \$4,946,178; hogs, \$350,000; horses and mules, \$9,840,000; total, \$30,460,658.

The secretary of the National Live Stock Association says that though the number of sheep in 1899 was but about 1,250,000 head, fewer than in previous years, the herds have been greatly improved, and are more profitable. He adds: "While the sheep and wool-growing branches of this industry are prosperous, the fattening of lambs and sheep in the feeding districts of the State has been all but ruined by the action of the railways constituting the Trans-Missouri Traffic Association in abrogating the feeding-in-transit rate of live stock and increasing the rate from the breeding grounds to market about \$30 per car. This makes feeding in many sections prohibitive. In the famous Fort Collins district, whose lambs always top every market in the United States, over 300,000 lambs were fed last year. This coming season it is very doubtful if 100,000 will be fed simply because of high freight rates."

The lumber product was estimated at \$2,000,000, and the manufactures at \$50,000,000.

The cheese industry is estimated to produce the value of more than \$1,000,000 annually.

About 3,000 colonies of bees are kept in Otero County, producing about \$16,000 a year. A fine quality of honey is made from alfalfa, the favorite food of the bees.

According to the report of the Agricultural Department at Washington, the State produced in 1898 spring wheat to the amount of 6,729,565 bushels, ranking ninth among the States in this respect.

Great progress has been made in the beet-sugar industry during the eleven years in which the people of the State have been interested in it. Factories are assured at Grand Junction and Greeley, and other localities are working in that direction. The offer of \$2,000 in prizes by the Denver Chamber of Commerce and \$4,000 by the railroads has stimulated effort for the establishment of factories. The Business Men's Beet-sugar Association of Grand Junction made an appeal in March for 500 farmers to settle in the Grand Valley, where they could buy cheap homes and make a net income estimated at \$300 to \$700 by raising beets to supply the factory.

The wool clip of 1899 is estimated at 10,126,175 pounds, an average yield of 6.5 pounds a head.

Water Power.—The following data regarding the power of the streams of the State are taken from the Denver Times-Sun: "The water-power streams are scattered over an area of 3,000 square miles. Colorado's water power is available, in segregated blocks, from 10,000 miles of mountain streams. The fall of these streams ranges from a few hundred to over 7,000 feet. The power streams of the mountains annually waste over 5,000,000 horse power of energy, of which about 1,000,000 horse power is commercially available. Long-distance electric transmission has brought the remotest water powers within marketable range. The mountain topography affords many natural reservoir sites for the installation of large power units. The market for water power is rapidly enlarging. Over 70,000 horse power is projected for installation in the immediate future."

The Ute Reservation.—A proclamation opening to settlement the lands of the Southern Ute reservation was signed in April by the President.

and the reservation was thrown open at noon, May 4. Excepted were lands reserved or allotted to the Indians and the lands reserved for other purposes in pursuance of the provisions of the act of Congress as lands that have become a part of the public domain or become subject to entry under the desert homestead and town-site laws and the laws governing the disposal of coal, mineral, stone, and timber lands, providing that no homestead settlers should receive title to any portion of such lands at less than \$1.25 an acre, etc. A provision was also inserted in the proclamation recognizing the claims of settlers who now have undisputed rights to any of the included lands, but this covers only a small tract.

Land Surveys.—The report of the Commissioner of the General Land Office gives the following details of work of the bureau in Colorado: According to the latest surveys, Colorado covers 103,969 square miles, 300 miles of which is water surface. During the past year 892 mineral and mill-site patents were issued in the State and 10 coal-land patents, embracing 548 acres. But two grants of public lands were made to the State, and they were for school-land indemnity, embracing a total area of 7,486 acres in the Pueblo land district. The report shows 40,185,991 acres of vacant public lands in Colorado, of which but 5,469,853 acres are reserved. The greater portion of the unreserved lands are now surveyed. Fourteen hundred acres in Colorado were placed under military land warrants last year. The areas of the reservations are as follow: White river plateau timber-land reserve, 1,198,080 acres; Pike's Peak timber-land reserve, 184,320 acres; Plum creek timber-land reserve, 179,200 acres; the South Platte forest reserve, 683,520 acres; and the Battlement mesa forest reserve, 858,240 acres.

Boulder.—A bill passed Congress this year granting to the city of Boulder about 1,800 acres of public land to be used as a park and for preserving the native trees. The report of the Committee on Public Lands says: "The land consists of precipitous mountains, mostly all rock, and is totally unfit for agricultural purposes. The fact that this land is close to the city of Boulder, and has never been located upon for homestead, pre-emption, or mineral purposes, shows that it is of no commercial value whatever. Boulder has about 7,000 population. The State University of Colorado is there, and the Chautauqua brings from 1,000 to 1,500 persons from other States, who reside in the vicinity of that city from June until September each year. This land is of no value whatever to the United States, and can be made a great attraction to the city of Boulder. At the same time it will prevent, to a large extent, the contamination of the water supply of Boulder."

The land will revert to the Government unless the city puts it to the use designed within three years.

Victor.—In August the city of Victor lost its business portion by fire, the value being estimated at \$2,000,000. Help was summoned from Cripple Creek, but the town had been built in the early days of the camp, and was of pine timber for the most part, and burned like paper. The first house was built in Victor in October, 1893. In July of the following year the city was incorporated, and six years later it contained 10,000 persons.

Silver Plume.—A great snow avalanche occurred near this place Feb. 12, carrying with it trees and mining timbers, burying Italian miners and their families, and sweeping away buildings

connected with the mines. The town was not in the track of the slide.

Legislative Session.—The twelfth General Assembly, after a session extended to the limit set by law, adjourned the second week in April. William Smith was Speaker of the House, and D. H. Dickason chief clerk. The Governor, in his inaugural address, recommended "an inheritance tax, the abolition of four district courts and the Court of Appeals, increased appropriations for the State University and School, and radical changes in insurance and election laws including the abolition of emblems on tickets; the appointment of a State bank examiner, the abolition of the truck system in mining districts, the suppression of trusts 'peaceably if possible,' civil-service rules for minor State offices, employment of convict labor, and admission of ex-Confederate soldiers to the State Soldiers' Home."

The Cripple Creek mining district was separated from Colorado Springs and erected into a new county, named Teller, after strong opposition. The new county is about 6 miles square, and produces half the entire gold product of the State.

A bill abolishing party emblems on election tickets was passed; also one providing that "the period of employment of workmen in smelters and in all other institutions for the reduction or refining of ores or metals shall be eight hours per day, except in cases of emergency where life or property is in imminent danger." This law went into effect in June, and a corresponding reduction in wages led to a strike among employees. The Supreme Court had decided in 1895 that the Legislature could not single out the mining, manufacturing, and smelting industries of the State and impose upon them restrictions with reference to the hours of their employees from which other employers of labor are exempt.

The question of issuing bonds for an auditorium in Denver will be submitted to a vote of the people.

Several bills affecting irrigation were passed, the most important of which, in the opinion of the State Engineer, was one "in relation to the exchange and transfer of water from one ditch to another; hereafter, when the change of the point of diversion is sought, it will be necessary for the owners to petition the district court from which the original decree was issued, praying for such exchange, and the practice and procedure will be the same as for the original decree; should the court determine that such change does not injuriously affect other appropriators, he will issue a new decree allowing the change and without forfeiture of his original priority." It is believed that this "will tend to stop the indiscriminate transfer of water, and will prevent the using of the excessive decrees which were recently granted and never used except in part. A great deal of the trouble of recent years," he says, "has arisen from the fact that the amount of the older decrees were largely in excess of what they needed or that the ditch could carry."

The principal items of a bill in relation to reservoirs provide "that all reservoirs of a capacity of more than 75,000,000 cubic feet shall be constructed under the supervision of the State Engineer, and that he shall determine annually the amount of water which it is safe to impound in all reservoirs within the State; he may also cause to be withdrawn water from any reservoir which he deems unsafe. The examination and acceptance of a reservoir, however, does not relieve the owners from the payment of damages caused by the washing away of the dam."

Provision is made also for the turning over of all State reservoirs to the counties in which they are, the counties becoming responsible for any damage resulting from the breakage of dams and such repairs as are necessary.

The "public utilities" bill gives power to city councils to build waterworks, lighting plants, etc., and to buy those established.

The sum of \$20,000 was appropriated to pay bounties on wolves, coyotes, and mountain lions during the years 1899-1900. Another act for the benefit of the live-stock industry provides for the inspection of live stock before shipment or removal beyond the boundaries of the State, and makes it unlawful to remove any cattle or horses from the State before the brands or earmarks have been inspected and recorded as prescribed by the law, which is not to affect the existing statutes respecting the larceny of live stock or cattle.

A bill restoring the limit to the percentage of county taxation was passed (see under Finances, this article). An appropriation for finishing the State Capitol was made, with the understanding that the building shall be finished without further delay.

A retrenchment bill reduces the number and compensation of employees of the Legislature.

A House concurrent resolution recommended other States to try the experiment of woman suffrage.

Another concurrent resolution provided for the participation of the State in the world's fair to be held at St. Louis to celebrate the Louisiana purchase.

Other important measures were an antitrust bill, a bill providing for the submission of more than one constitutional amendment at any general election, a valued-policy bill, a prize-fight bill, and an antiscript bill.

The columbine will be the State flower of Colorado.

The general appropriation bill—for the support of State offices and institutions—appropriated \$645,700, and special bills about \$242,000.

CONGO INDEPENDENT STATE, a sovereign, independent, monarchical state in Central Africa, created with the consent of the great powers, and declared perpetually neutral by the general act of the Congo, signed at Berlin on Feb. 26, 1885. Leopold II, King of the Belgians, who was declared to be sovereign of the Congo State, ceded to Belgium his sovereign rights in the event of his death by a testament executed on Aug. 2, 1889, and on July 3, 1890, Belgium acquired by a convention with the Independent State the right to annex the territories after a period of ten years. The Government, under King Leopold, is presided over by a Secretary of State at Brussels, Baron Edmond van Eetvelde, who is assisted by Chevalier A. de Cuvelier, Secretary of Foreign Affairs; H. Pochez, Treasurer; H. Drogmans, Secretary of Finance; and Charles Liebrechts, Secretary of the Interior, the Public Force, and Marine. Capt. E. Wangermee, Vice Governor General, commands at Boma, and Baron F. Dhanis and Capt. van Gèle, holding the same rank, have command in the interior.

Area and Population.—The territories of the Independent State, embracing the whole basin of the Congo south of the French sphere, which is bounded by the Ubangi and the Bomu, have an area estimated at 900,000 square miles, with a population of 30,000,000. The Europeans in 1898 numbered 1,678, of whom 1,060 were Belgians, 102 Portuguese, 91 Swedes and Norwegians, 87 British, 60 Dutch, 57 Americans, 34 Danes, 26 French,

17 Germans, 11 Swiss, 8 Austrians, and 6 Spaniards. There are 115 Catholic and 108 Protestant mission stations. The missionaries co-operate with the Government, which has established agricultural training schools. They use in teaching the Swahili language, introduced by the Arabs, instead of the innumerable Bantu dialects.

Finances.—The revenue for 1898 was estimated at 14,765,050 francs, including an annual subsidy of 1,000,000 francs from King Leopold's privy purse and 2,000,000 francs advanced annually from the Belgian treasury from 1890 till 1900. The rest of the revenue is derived from customs, postage, steamer and railroad transport, public lands and forests, etc. The expenditure for 1898 was estimated at 17,251,975 francs, of which 2,524,920 francs were for extraordinary purposes. For 1899 the revenue was estimated at 19,966,500 francs, and the expenditure at 19,672,965 francs. The principal expenses were 7,023,946 francs for the public force, 5,285,405 francs for Government administration, 4,020,720 francs for administering the forests and domains, 1,481,624 francs for marine, and 1,261,270 francs for public works.

Defense.—The public force consisted in 1898 of 15,580 armed and trained native soldiers, of whom 3,000 are recruited every year, divided into 23 companies, commanded by 234 European officers and 173 drill sergeants.

Commerce and Production.—Besides the lands reserved for native occupation, there are estates that have been acquired by Europeans for planting purposes. All land not occupied by natives or by European owners is state property. Thus the Government has a right to all the rubber produced. To increase the supply instead of allowing it to run short through the gradual destruction of the rubber forests, the Government has decreed that 150 vines shall be planted for every ton of rubber taken out. The control of the forests has been placed in the hands of a bureau, with instructions to enforce the regulations for carrying on the industry, especially the prohibition of any method of gathering rubber except by incisions in the bark of the tree. The chief exports, besides rubber, are ivory, palm nuts, and palm oil. The natives grow tobacco only for their own consumption, and lately the Government has made experiments in growing the Havana and the Sumatra leaf. The commerce of the state has expanded greatly, especially since the completion of the Congo Railroad. Exports of the produce of the state increased from 1,980,000 francs in 1887 to 5,487,633 francs in 1892, 6,206,135 francs in 1893, 8,761,622 francs in 1894, 10,943,019 francs in 1895, 12,389,600 francs in 1896, and 15,146,976 francs in 1897. The general commerce, which includes produce brought down from regions beyond the state boundaries, amounted to 17,457,090 francs in 1897. The special imports in 1897 were 22,181,462 francs in value, compared with 15,227,776 francs in 1896, 10,685,848 francs in 1895, 11,194,723 francs in 1894, and 9,175,103 francs in 1893. The special imports of most importance in 1897 were cloth and apparel for 5,898,700 francs, articles of food for 3,680,000 francs, machinery for 3,532,400 francs, metal goods for 3,213,700 francs, arms and ammunition for 1,754,500 francs, and articles of drink for 1,323,700 francs. The chief exports in the special trade were rubber for 8,311,900 francs, ivory for 4,916,480 francs, palm nuts for 1,098,880 francs, and palm oil for 650,210 francs. Of the special imports in 1897 the value of 16,272,000 francs came from Belgium, 2,593,250 francs from Great Britain, 1,174,860 francs from Germany, and 911,013 francs from the Netherlands. Of the

general exports in 1897 the value of 12,882,900 francs went to Belgium, 2,348,100 francs to the Netherlands, and 1,157,740 francs to the Portuguese possessions on the west coast of Africa. The total imports in 1898 were 25,185,138 francs in value, and exports 25,396,706 francs. The increase in the exports was fairly well distributed, except that in rubber there was the remarkable increase of 7,500,000 francs. In 1888 the export of rubber was only 250,000 francs, and in 1898 it was 15,800,000 francs. The increase in the total exports, which was 46 per cent. in 1898, has been 750 per cent. in ten years.

Navigation.—Steamers arrive at Boma every month from Antwerp and at frequent intervals from Liverpool, Hamburg, Rotterdam, and Lisbon. The number of vessels in the ocean trade entered at Boma and Banana during 1897 was 201, of 342,809 tons, of which 123,433 were British, 120,369 Belgian, and 67,618 German. The number cleared was 206, of 348,657 tons, of which 123,256 were British, 120,369 Belgian, and 71,231 German. The number of vessels entered coastwise was 434, of 16,877 tons; cleared, 453, of 17,194 tons.

Communications.—The Government has 6 steamboats making regular trips from the mouth of the Congo up to Matadi, where the rapids interrupt navigation. From Leopoldville, on Stanley Pool, 22 Government steamboats transport passengers and merchandise to the upper Congo, which is navigable for 1,000 miles to Stanley Falls, and to places on the navigable tributaries of the Congo. Between Matadi and Leopoldville the transport, formerly effected by porters, is now accomplished by means of the Congo Railroad, which runs parallel to the river for 250 miles, at an average distance of 20 miles from the south bank.

A route has been surveyed for a railroad from Stanley Falls eastward for 300 miles, then branching northward to Lake Albert and southward to Tanganyika.

The Congo State is a member of the Universal Postal Union. The number of pieces of mail matter carried in 1897 was in the internal service 82,182, and in the foreign service 261,264.

The Batetela Revolt.—When the Belgians at the end of 1896 made their arrangements to occupy the Lado district, the task was intrusted to two columns, one of which, 700 strong, under Commandant Chaltin, accomplished its mission by defeating the Mahdists and conquering the territory leased to the Congo State by an arrangement with Great Britain. The other column, commanded by Baron Dhanis, consisted of 3,200 Batetelas from Gandu, the country between the Lualaba and the Lomami. These men, who were formerly the most faithful and efficient soldiers in the Congo State, rebelled against being taken so far from their homes and beyond the confines of the Congo State. They had not been as tractable since their chief, Gongo Lutete, was shot on an unfounded charge of treason in 1893. The first mutiny occurred at Dirfi on Feb. 12, 1897, when the advance guard murdered the white officers. When Baron Dhanis came up on March 18 with the main body several hundred deserted to the mutineers. A battle ensued, in which several more Belgian officers lost their lives. The mutineers, who were abundantly supplied with ammunition, set off for their tribal home, 1,000 miles to the southwest, and Baron Dhanis, with the half of his force that remained faithful, returned to the upper Congo. The rebels were headed off by the Congo troops at Stanley Falls, and for nearly two years they wandered through the re-

gions west of Lakes Albert, Kivu, and Tanganyika. Other Batetelas garrisoned at Luluaburg also revolted, swearing to avenge the death of Lutete. Baron Dhanis strengthened his positions at Nyangwe and Kassongo, and then sent out small columns to attack the mutineers. After a series of victories won by these columns, the force of Lieut. Svensen, 150 strong, was attacked on Nov. 4, 1898, at Sungula, on Tanganyika, and, though joined the next day by re-enforcements brought up by Lieut. Alban Lemaire, was compelled to retreat to Kabambare, fighting all the way, and losing 6 white officers and 100 men. The rebels developed an unexpected strength, having probably obtained fresh munitions in German territory. Lieut. Svensen died soon after reaching Kabambare, and almost immediately this important station, the nearest to Gandu, was attacked by the rebels. The garrison, consisting of 800 native soldiers, went over to the enemy, killing 5 of the 14 white officers. After capturing 2 guns and all the baggage and ammunition, the mutineers evacuated the place. The forces of the Congo State were strengthened by recruits from the Manyema tribe, and as soon as his army could be got ready Baron Dhanis took the field. Meanwhile the rebels surprised, captured, and destroyed many small frontier stations between Tanganyika and the Congo. They were repelled from other stations which they attacked. Mongallas also revolted, and were augmented from neighboring tribes. The ferment extended down along the Congo to the mouth of the Ubangi, and the prestige of the whites was endangered until Baron Dhanis set in motion the large force that he had collected to overwhelm the Batetela mutineers. He had his headquarters at Kassongo. Major Lothaire pacified the Mongalla country, defeating the Budja cannibals and other rebellious tribes. The Batetela mutineers numbered fewer than 1,000 now, and the population of the country was not in sympathy with them. So long, however, as they possessed ammunition they could inflict losses on the state troops by ambuscading small detachments, while avoiding battle when pursued by a strong force by escaping into the forest. Baron Dhanis advanced to Kabambare and established his headquarters there in the middle of January, 1899. In the Lado district on the Nile the Belgians had about 800 black troops, commanded by 20 white officers, at the beginning of the year, with Krupp and Maxim guns mounted on the ramparts at Lado. They had an advanced post on the Loret, having abandoned Redjaf to the Mahdists, whose main body was at Bor, 100 miles north of Lado, the Loret, which forms the boundary of Belgian territory, being equidistant from both places. Soon afterward his troops inflicted a telling defeat on the mutineers. Following up his advantage, he drove them before him back to Tanganyika and into the German protectorate by the same route along which with their aid he once pursued the Arab slave raiders.

CONGREGATIONALISTS. The following is a summary of the statistics of the Congregational churches in the United States as given in the American Congregational Yearbook for 1899: Number of churches, 5,620, of which 4,242 are "supplied" (with pastors) and 1,375 are "vacant"; of ministers, 5,639, of whom 3,684 are in pastoral work and 1,955 are without charge; of members, 628,234; of members of Sunday schools, 682,613, with an average attendance on the schools of 408,357; of Young People's Societies of Christian Endeavor, 3,829, with 202,315 members; of families, 419,434; of additions by con-

fession during the year, 25,189; of baptisms, 11,202 of adults and 11,494 of infants. Amount of benevolent contributions (4,854 churches reporting): For foreign missions, \$379,452; for education, \$103,670; for church building, \$86,006; for home missions, \$477,690; for the American Missionary Associations, \$122,457; for Sunday schools, \$56,690; for ministers' aid, \$25,075; for other benevolences, \$591,879. Amount of legacies received during the year, \$431,650; amount of contributions for home expenditures (1,458 churches reporting), \$6,725,911.

The seven theological seminaries—Andover, Bangor, Chicago, Hartford, Oberlin, Pacific, and Yale—returned 64 professors, 25 instructors and lecturers, 10 members of advanced or graduate classes, 27 resident licentiates or fellows, and 371 undergraduate students.

Congregational Church Building Society.—The forty-seventh annual report of the Congregational Church Building Society shows that the year 1899 had with one exception been the best year in its life. The number of contributing churches was greater by 164 than in any previous year. The receipts from all sources had been \$247,307. The expenditures had included \$153,047 paid to 95 churches on houses of worship, and \$118,450 to 41 churches on parsonages. Seven hundred and two church-building accounts and 407 parsonage accounts had been closed. A considerable number of the aided churches had already returned all the money they had received from the society, and in some cases had contributed a large additional amount. The sum of \$121,049 had been voted to 125 churches, and \$29,745 to 65 parsonages. Six of the churches had received loans only, 15 loans and grants, and the rest grants only. Fourteen of the aided churches were east and 76 west of the eastern line of Ohio. The church-building loan fund stood at \$655,855, an amount including \$449,763 gifts to it and \$206,091 loans refunded. The parsonage loan fund stood at \$111,468, in addition to \$187,814 paid back on loans. During 1899 \$30,397 were paid back on church-building loans and \$19,161 on parsonage loans.

American Home Missionary Society.—The seventy-third annual meeting of the Congregational Home Missionary Society was held at Hartford, Conn., May 23 to 25. Gen. Oliver O. Howard, of Vermont, presided. The receipts of the society for the year from all sources had been \$294,670, while the auxiliaries had, in addition, raised and expended on their own fields \$221,575. The expenditures of the National Society for missionary labor and expenses had been \$313,462, and those of the auxiliaries \$221,575. The society had begun the year with a net debt of \$106,500; this had been increased by \$26,969, so that the net debt at the close of the fiscal year, March 31, 1899, was \$133,469. Eighteen hundred and twenty-four missionaries had been employed in 44 States and Territories, including 24, who, having labored in more than one State, were counted twice—viz., 466 in the New England States, 119 in the Middle States, 97 in the Southern States, 102 in the Southwestern States, 185 on the Pacific coast, and 879 in the Western States and Territories. Of the whole number of missionaries in commission, 956 had been pastors or stated supplies of single congregations, 549 had ministered to two or three congregations each, and 319 had extended their labors into still wider fields. The number of congregations and missionary districts supplied or where the Gospel had been preached at stated intervals was 2,875. Forty-six of the missionaries had preached to

German congregations, 102 to Scandinavian, 22 to Bohemian, 5 to Polish, 13 to French, 5 to Mexican, 3 to Italian, 2 to Spanish, 4 to Finnish, 2 to Danish, 5 to Armenian, 1 to Greek, and 2 to Welsh congregations. The number of pupils in Sunday schools and Bible classes was not far from 146,604. One hundred and ninety-nine new Sunday schools had been organized, and the whole number of Sunday schools under the special care of missionaries was 2,064. Thirty-four churches had been organized during the year in connection with labors of the missionaries, 44 churches had become self-supporting, and 5,030 members had been added on confession of faith. Sixty houses of worship had been completed, 220 repaired or improved, and 77 parsonages provided. The woman's department, which was now in its seventeenth year, had contributed \$42,341 to the treasury of the society and \$98,758 to the treasuries of the five "homeland" organizations. A resolution was passed at the meeting declaring that it appeared to be the duty of the society to preach the Gospel in Alaska and Cuba.

American Missionary Association.—The fifty-third annual meeting of the American Missionary Association was held in Binghamton, N. Y., beginning Oct. 17. The Rev. A. H. Stimson, D.D., of New York, a vice-president, presided in the absence of the Rev. F. A. Noble, D.D., of Chicago. The receipts for the year had been \$297,682 for current work, \$71,960 income from the Daniel Hand fund, and \$2,026 for the endowment fund of Straight University. The payments had been \$296,811, leaving the society free from debt and with a small balance in the treasury. The main sources of support were the contributions from churches, Sunday schools, missionary societies, and individuals, and receipts from legacies. The great fluctuations in receipts from legacies, sometimes amounting to \$95,000 in a single year, had been the chief cause of the debts which had so often burdened the association in the years past. It having proved impossible to make any satisfactory estimate of these receipts for the appropriations for the year, the Executive Committee had sought a plan which would aid in equalizing current receipts from legacies from year to year. The plan consisted in crediting to an account of "reserved legacies" all money in excess of \$3,000 received from an estate in one year for the general purposes of the association, such reserved legacies to be paid out only upon special appropriations by the Executive Committee. From the first day of January to Sept. 30, 1899, \$28,230 had been credited to the reserve-legacy account under this plan. Of this sum, \$19,500 had been specially appropriated to meet urgent demands, leaving \$8,730 in the account, of which \$5,000 had been appropriated for repairs greatly needed on buildings in the South. The amount of the Daniel Hand Educational fund was returned as \$95,000. The Women's Missionary Societies had contributed \$26,578 to the work of the association. The experience of the year in the Southern educational work had been "characteristic and happily uneventful." The 26 purely elementary schools were chiefly situated in places uncared for by public schools, and were associated for the most part with rural churches in the States of North Carolina, Georgia, Florida, Mississippi, Alabama, and Tennessee. The 45 normal and graded schools were located in different centers in 10 Southern States—1 in Virginia, 8 in North Carolina, 2 in South Carolina, 10 in Georgia, 2 in Florida, 8 in Alabama, 6 in Tennessee, 3 in Kentucky, 4 in Mississippi, and 1 in Arkansas. The 10 mountain schools were

in the same system, with similar courses of instruction, as those among the colored people; they returned 55 teachers and 1,587 enrolled pupils. All these schools in the South, together with the 5 chartered institutions—making 70 schools in all—had 414 instructors and 12,428 pupils. Of these pupils, 125 were theological, 85 collegiate, 307 college preparatory, and 1,465 normal students. Much attention was given to industrial training, with model farms and workshops connected with most of the larger schools. A committee of the association had visited Puerto Rico with reference to the establishment of schools there, and Santurce, near San Juan, and Utuado, in the center of the mountainous coffee region, had been selected as two of the sites. The Southern church work included 211 churches, 140 ministers and missionaries, 11,398 members, 14,806 pupils in church and mission Sunday schools, and 1,238 members added on profession of faith during the year. Fifteen new churches had been added to the roll, and 6 dropped. More than half the churches were in the three States of North Carolina, Georgia, and Alabama, including more than 5,000 members. Some of the city churches were actively engaged in city mission work among the poorer classes of the colored people, with much success. The mountain churches, included in the above enumeration, numbered 1,600 members. Three new churches had been organized. The Indian missions (including Alaska) comprised 19 churches, with 1,097 members and 2,438 pupils in Sunday schools, 6 schools with 368 pupils, 33 missionary out stations, and 49 white and 34 Indian missionaries and teachers. These churches and missions had contributed \$3,239 for benevolence and church support. Extensive missionary experience had led to the conclusion that in civilizing and Christianizing the Indian direct evangelistic work must be largely depended upon. The Alaskan work was entirely distinct and separate from other missions in the Territory, and had been established in a region where it trenched upon the field of no other Christian organization. The Chinese missions, in California and Utah, included 21 Chinese and Japanese schools, with 35 teachers, 10 of whom were Chinese, and 1,360 pupils, and reported 152 professions of faith during the year. Reviewing all the mission work among these people from the beginning, it was found that nearly 20,000 Chinese had been reached in the mission service of Christian churches on the Pacific coast, and nearly 2,000 of them had become Christians and were actively supporting the missionary service in the United States and in their native land.

The American Board.—The ninetyeth annual meeting of the American Board of Commissioners for Foreign Missions was held in Providence, R. I., beginning Oct. 3, the Hon. D. Willis James, vice-president, presiding. Memorial addresses relative to the Rev. Dr. C. M. Lamson, late president of the board, deceased, were delivered by Mr. James and Prof. Williston Walker. The report of the home department showed that the receipts from donations (\$490,407) represented a gain of \$58,918, while the amount received from legacies was \$85,509 less than in 1898. Twelve new missionaries were under appointment, and 14 others were about to return to their fields. The report of the treasurer showed that the total receipts for the year had been \$644,200, and the expenditures \$692,446. The debt had been increased by \$48,245, and was now \$88,537. The annual survey of the mission work showed that there were connected with the 20 missions 529

missionaries, 3,155 native laborers, 1,417 preaching stations, 492 organized churches, 49,782 members, 5,047 of whom had been received on confession during the year; 1,021 Sunday schools, with 65,903 pupils; 133 colleges and high schools, with 9,088 young men and women pupils; and 1,137 common schools, with 43,920 pupils; hospitals and dispensaries at which 120,000 patients had obtained relief; and a number of mission presses. Throughout the mission fields the Gospel was preached in 26 different languages. The educational work had become so largely self-supporting that for 128 schools, with 336 teachers and nearly 10,000 pupils, less than \$500 had been paid during the past year by the American Board and the Woman's Board. In Japan 431 members had been added to the Kumiai churches during the year, making the total membership of that body 10,046.

The Advisory Committee on the "Forward Movement" reported that they had secured Mr. Luther D. Wishard as a special agent to develop interest in foreign missions among the churches, and especially to secure the adoption of missionaries by particular churches, individuals, and families. Since Mr. Wishard had entered on this work, Feb. 1, 1899, 20 of the churches visited by him had undertaken the support of individual missionaries. The aggregate gifts of these churches for the past year had been \$4,871, and they had pledged \$15,561 for the coming year. Six other churches had increased their gifts from an aggregate of \$609 to \$1,953. The board voted to continue this special work for another year. It having been shown in an address by Mr. S. B. Capen, reviewing the report of the home department, that, while the membership of the Congregational churches had increased 17 per cent. in the last seven years, the gifts to the six missionary and educational societies of the denomination had decreased 24 per cent., the Rev. Francis E. Clark found cause for thanksgiving and encouragement in the fact that the gifts of the young people were steadily increasing. Mr. Samuel B. Capen, of Boston, Mass., was elected president of the board to succeed the Rev. Dr. C. M. Lamson, deceased, receiving on the first ballot 115 votes out of a total of 137 cast.

Women's Societies.—The Woman's Board of Missions met at Syracuse, N. Y., in October. The treasurer reported that the total amount of contributions for the year had been \$110,825, a gain of \$6,961 over the previous year. This gain had been made possible by two individual gifts, amounting to \$6,500, one of which was for a school building in Adabazar, Turkey. Of legacy funds, \$22,461 were available for the work of the year. One legacy of \$27,000 had been received, of which \$24,000 were available for expenditure to be distributed over three years, while \$3,000 were to be added to the permanent fund. The society was addressed by a number of returned missionaries from India, China, Turkey, Japan, and Austria, and by a pupil from the girls' school at Brusa, Turkey, and a Japanese young woman, a graduate of Mount Holyoke College, now a pupil in the school at Northfield, Mass.

The twenty-first annual meeting of the Woman's Board of Missions of the Interior was held at Madison, Wis., in October. The treasurer reported that the receipts for the year had been \$80,402, a gain over the previous year of \$16,872, or nearly 26½ per cent. The advance had been apparent in every one of the 15 States represented in the society. The debt was extinguished. Five new missionaries had been sent out to China

and Turkey, two had returned to their fields, and two women had been appointed teachers in Kobe College, Japan, for five years. The younger women of the churches and the Christian Endeavor Societies had together raised \$11,127 for the board; and the children's work and Junior Christian Endeavor Societies \$4,476, the contributions of the children's work showing a gain of \$263 over the previous year. Addresses were made at the meeting on subjects pertaining to the work of the board, and by returned missionaries.

Plan of the Committee of Fifteen.—The Committee of Fifteen on Missionary Work, including representatives of the Congregational missionary enterprises and of the Christian Endeavor Society, instituted by the National Congregational Council of 1898 to devise plans for promptly paying the debt of every society and for such increased gifts as shall make it possible to enlarge the Congregational work at home and abroad, assembled and organized on April 19, with Samuel B. Capen as chairman. Its conclusions were published about a month later, and were embodied in the recommendations that "committees on missionary work" be chosen, first, by each State convention, a committee composed of one from each conference; second, by each local conference, a committee of such number that each member shall be responsible for not more than five churches; third, by each church, a committee to make some plan, best suited to itself, for systematic giving. "The one purpose," the paper explained, "is to secure as far as possible, in each church, an interest in the whole missionary work to which as a denomination we are pledged, and without which co-operation we can not hope to succeed." The ultimate object of the plan is to secure a gift every year from every church for each of the six missionary societies.

Congregational Union of Ontario and Quebec.—The Congregational Union of Ontario and Quebec met in Brantford, Ontario, June 7, the Rev. J. W. Pedley presiding. Mr. Edmund Yeigh was elected chairman for the ensuing year. Resolutions were passed in favor of closer relations with the Congregational churches of the United States and of Great Britain, and approving the students' home missionary movement. Reports were received from the home and the foreign missionary societies, after which the union approved the principle of the amalgamation of the different societies, and a committee was appointed to formulate some definite scheme of action on the subject. Besides missions, various subjects were discussed, relating to the young people, Sunday schools, the civil order, education, and temperance reform.

Congregationalists in the British Isles.—In the English Congregational Yearbook for 1899 more comprehensive and detailed statistics are given than in any previous number, and consequently a more satisfactory view of the condition of the denomination is presented. Of the 5,000 churches, branch churches, and mission stations in the kingdom, about 500 failed to report. Omitting these, 4,569 churches, etc., in England and Wales returned 1,634,327 sittings, 377,339 church members, 614,742 pupils in Sunday schools, 54,135 teachers, and 4,981 lay preachers. There were also 246 churches in Scotland, Ireland, and the smaller islands, the return of members in which does not appear, making the whole number of churches in the British Isles 4,815. Lists are given of 3,122 ministers in the British Isles, 210 evangelists and pastors returned by

county associations, 16 colleges and institutions for ministerial training in England, Wales, Scotland, and the colonies, with 430 students, and 10 institutions belonging to the London Missionary Society, with about 300 native students.

The Yearbook for 1900, published just as this article goes to press, in which returns are included from 99 more churches than that for 1899, gives 4,592 churches, with 1,636,269 sittings, 388,009 church members, 61,524 teachers and 655,472 pupils in Sunday schools, and 5,369 lay preachers in England and Wales; and in all the British Isles 4,851 churches, 1,735,065 sittings, 415,664 church members, 64,334 teachers and 684,006 pupils in Sunday schools, 3,132 ministers, and 5,484 lay preachers.

At the forty-fifth annual meeting of the English Congregational Chapel Building Society, an income for 1898 was returned of £4,936, including £2,750 on account of repayment of loans. The loans for the year had been £2,520 to chapels and £285 for manses, while the society was under engagement to advance £9,760 to cases recently considered. Since its formation, forty-five years previously, 800 churches and 90 manses had been assisted, by grants or loans, to an aggregate amount of £176,472. The grant fund out of which the free gifts had been made was now exhausted. These gifts were made on an understanding that the churches assisted should take an annual collection for the fund, but more than two thirds of them (298 out of 430) sent nothing. A resolution of the annual meeting of the society affirmed the duty of maintaining Protestant evangelical truth in the rural districts, and urged the necessity of church extension in large populations.

A Congregational Home.—Medland Hall, the home for the homeless of the London Congregational Union, returned for 1898 109,779 admissions, representing more than 11,000 different men, who made use of the shelter on an average of ten nights in the year. The Sunday services had had an attendance of 20,921. Every county in England was represented among the lodgers, and 668 admissions were from foreign countries. Fifty men had been sent to Canada, at a cost, including outfit, of £400. This philanthropic work is carried on at an average cost of less than three halfpence per man per night, including bed, food, washing, cooking appliances, and all expenses of administration.

Congregational Union of England and Wales.—The sixty-seventh annual assembly of the Congregational Union of England and Wales was opened in London, May 8, the Rev. H. Arnold Thomas, of Bristol, presiding. Mr. J. Carvell Williams, M. P., was elected chairman for 1900. The annual balance sheet showed that the total receipts had been £17,143, and that a balance remained in the treasury of £524.

A scheme for a "twentieth century fund" was submitted by the Executive Committee, and was adopted, the assembly, however, empowering the council administering the scheme to make such modifications in it as might seem desirable, paying special attention to the needs of the weaker churches. The scheme as adopted, subject to this condition, contemplates the raising of 500,000 guineas, to be allocated: (a) For foreign and colonial missions a sum not exceeding £100,000; (b) for church extension, £150,000; (c) for the extinction of debts upon chapel and school buildings, £50,000; (d) first, toward the maintenance of the weaker churches and the augmentation of inadequate ministerial stipends, £25,000; second, toward the maintaining of an efficient ministry

during the early years of new churches in growing districts, £75,000; (e) for a pastors' retiring fund, £50,000; (f) for the extinction of the debt remaining on the Memorial Hall, £50,000; (g) for the colleges, schools, and settlements, and for other objects which in the judgment of the special committee may appear to be desirable to the interests of the denomination, £50,000. Provision was made for the admission as associate members of the union of such Congregational churches as for geographical causes, by reason of distance, etc., are unable to be affiliated with any local union. Resolutions were adopted opposing the maintenance of a sectarian university for Ireland, whether for Roman Catholics, Presbyterians, or any other religious denomination; denouncing the attempted publication of newspapers on Sunday "as a breach of the unwritten national compact which secures to our toilers one day's rest in seven, and as calculated to militate to a disastrous degree against the social, moral, and spiritual interests of the people"; expressing satisfaction at the attitude of the Government toward the peace propositions of the Czar, and urging it to do all in its power to secure the achievement of practical results, especially in promoting a system of international arbitration, from the conference convened by his Majesty; and declaring it the duty of all Christian citizens to endeavor to secure some honorable provision for the aged poor. Meetings were held in behalf of the young people and of foreign missions, colonial missions, the Sunday-school Union, etc.

The Congregational Total Abstinence Association held its twenty-fifth anniversary in connection with the meeting of the union, when it was shown that out of 2,900 Congregational pastors 2,444 were known to be abstainers. A statement of the need of increased contributions was made in behalf of the Church Aid Society, the object of which was to bring up the stipends of aided pastors to £90.

The autumnal meeting of the union was opened at Bristol, Oct. 17. The chairman, the Rev. Arnold Thomas, delivered an address on *The Value of Religion*. An account was given by the Rev. W. Pierce of the visit of himself and the Rev. G. Cousins, of the London Missionary Society, to the churches in British Guiana, which included every church and every mission station. He had come to the deliberate conclusion that the position of the churches in the colony was a distinctly hopeful one. The Sunday congregations numbered 10,000 persons, while the church membership was 5,300, with about as many pupils in the Sunday schools. Though very poor in consequence of the depression of the sugar industry, they raised about £3,000 annually. They constituted the only voluntary denomination in the colony. The Rev. William Dower, of South Africa, presented the case of the Congregationalists among the Boers, some of whose churches were closed in consequence of the war and many members were fugitives. The Congregational Union of South Africa, sitting at Port Elizabeth, was concerned with doing something to provide for them. The churches numbered 72, with 141 out stations, English, Dutch, and native. Seventeen of the native churches were entirely self-supporting, and 36 were helped by the others. The principle of the churches was equality for every man, black and white. A statement in behalf of the Church Aid Society showed that the grants to county unions in 1898 had amounted to £4,183, in aid of 377 churches and 158 missions, and in support of 223 pastors and 61 evan-

gelists. The grants voted for 1899 amounted to about £4,200, by means of which it was hoped to raise the minimum stipend for aided ministers to from £90 to £100, except in Wales. The grants exceeded the estimated income by nearly £600. A meeting was held for the organization of a Congregational historical society, when a provisional committee was appointed to report at the meeting of the union to be held in May, 1900. Resolutions were passed urging the study of the reports, particularly the minority report, of the Royal Commission on Licensing, with special reference to the details relating to hindering children from entering public houses or being served with alcoholic liquors, and protesting against the tithe rent charges act. An account was given by the Rev. Dr. Bruce of the meeting of the International Congregational Council at Boston. Papers were read on Congregationalism in the Nineteenth Century, by the Rev. H. E. Lewis; *The Misuse of the Lord's Day*, by the Rev. W. S. Houghton; *The Degradation of Sport*, by the Rev. J. Hirst Hallowell; *The Place of Authority in Religious Faith*, by the Rev. Prof. Adeney; *The Place of the Free Churches in the National Life*, by the Rev. J. Morgan Gibson; *The Nonconformist Conscience*, by the Rev. T. E. Daviess; and *The Dangers which Menace our Faith from a Loud, Clamorous, and Ubiquitous Priestism*. Meetings were held in behalf of the twentieth century fund, the Colonial Missionary Society, the young people, and the children, with a people's meeting, a women's meeting, and a conference on ministerial removals. Besides the usual greetings from the local free churches, an address of welcome was offered to the union by the Bishop of Bristol, the dean, the archdeacon, and the rural dean.

Irish Congregational Union.—The seventieth annual assembly of the Irish Congregational Union was held in Dublin in May. The Rev. James Wylie, of Belfast, presided, and spoke of the encouraging outlook of Congregationalism in Ireland. The report of the mission showed that it was carried on in 16 central churches, at 65 out stations, by 14 ministers, 4 evangelists, 3 lay preachers, 90 Sunday-school teachers, and other workers. With a membership of 2,050, the union had raised in the past few years more than £8,000 for church building and providing accommodation for church worshippers. The contributions of the churches and missions averaged £2 10s. per member.

International Congregational Council.—The International Congregational Council is an extension to a world-wide scale of the idea of voluntary fellowship, by which the Congregational churches are connected with one another. Beginning with the local associations, these churches have gradually enlarged their affiliations to form district, county, and State associations; national bodies, as exemplified in the American National Congregational Council and the Congregational Union of England and Wales; and now the International Congregational Council. These bodies meet for consultation, discussion, and advice, and do not pretend to exercise any authority. The idea of the International Council is said to have originated with the Australian Congregationalists, and was carried into effect by the Congregational Union of England and Wales, at whose suggestion the first world's meeting was held in London in 1891, with the Rev. R. W. Dale, D. D., as president. The second meeting was held in Boston, Mass., Sept. 20 to 28, 1899, being preceded by an informal reception given to the delegates on the afternoon of the

19th. James B. Angell, President of the University of Michigan, was chosen president of the present council. In his presidential address he spoke of the qualities of the fathers, who made the will of God the law of their lives, and appealed to the Church not to lose its interest in the extension of the Gospel throughout the world. The Rev. Dr. John Robson and the Rev. Dr. William Blair, Presbyterian ministers from Scotland on their way to attend the General Council of the Presbyterian Alliance at Washington, D. C., were invited to seats on the platform as honorary members. Dr. Robson spoke, insisting upon the close sympathy of Presbyterians and Congregationalists, who had been engaged together in contending for religious liberty and freedom from state interference. The first stated papers read were on *Fundamental Principles in Theology*, by President George Harris, D.D., of Amherst College, and on the *Message of the New Testament for To-day*, by the Rev. F. C. Porter, D.D., of Yale University. The *Relation of Evolution and Theology* was treated in a paper by the Rev. Alexander Gosman, of the Congregational College of Victoria, Hawthorne, Australia; The *Historical Method in Theology*, by Prof. George P. Fisher, of Yale University; The *Evangelical Principle of Authority*, by Peter T. Forsyth, D.D., of Cambridge, England. In a session devoted to the messages of peace which Christianity has for the world, the Rev. Lyman Abbott, D.D., editor of the *Outlook*, New York, spoke of the ideal international relations as being those which will exist when the Lord's Prayer is fully answered, and the Rev. Alexander MacKinnell, D.D., of Bowton, England, of The Christian Attitude toward War in the Light of Recent Events. The subject of The Distinctive Characteristics of Christianity was discussed by the Rev. Charles R. Brown, D.D., of California, and the Rev. John D. Jones, of Bournemouth, England. These speakers were followed by the Rev. Andrew M. Fairbairn, D.D., of Mansfield College, Oxford, England, in an address on The Influence of the Study of Other Religions upon Christian Theology. The duty of the Church in the matter of social reform was considered in papers by Mr. Albert Spicer, of England, and Prof. Graham Taylor, of Chicago. Monday, Sept. 25, was devoted to subjects relating to education. The addresses were on *Tendencies of Modern Education*, by Prof. John Massie, of Mansfield College, Oxford, England, and the Rev. James Hirst Hallowell, of Rochdale, England, secretary of the Northern Counties Education League; The Influence of Our Public Schools on the Caste Spirit, by the Rev. F. A. Noble, D.D., of Chicago; The Democracy of Education, by the Rev. L. D. Bevan, D.D., of Melbourne, Australia; The Religious Motive in Education as illustrated in the History of American Colleges, by President William J. Tucker, of Dartmouth College; and general addresses in the evening by President W. D. Hyde, of Bowdoin College, President W. F. Slocum, of Colorado College, the Rev. Henry Hopkins, D.D., of Kansas City, Mo., and President C. W. Eliot, of Harvard University. Presidents Hyde and Slocum criticised the method of instruction in the theological schools of the denomination as unscientific and antiquated, and lacking in elements essential to the preparation of clergymen of the kind the age demands, and called for a consolidation of the seminaries. These addresses were replied to at succeeding sessions of the council by Principal Fairbairn, of Mansfield College, and President G. F. Moore, of Andover Theological Seminary, who defended the seminaries.

The addresses of Tuesday, Sept. 26, were on The Pastoral Function: Congregational and Civic, by the Rev. W. B. Selbie, of London, and Reuben Thomas, of Brookline, Mass.; The Spiritual Life in Our Churches, by the Rev. Joseph Robertson, of Adelaide, Australia; Woman's Work, by Mrs. Elkanah Armitage, of Leeds, England, and Prof. Miss Margaret J. Evans, of Carleton College, Northfield, Minn.; Woman's Work in Foreign Missions, by Grace N. Kimball, of Vassar College, Poughkeepsie, N. Y.; and The Young People, by the Rev. Dr. C. H. Patton, of St. Louis, Mo., the Rev. Dr. C. E. Jefferson, of New York, and the Rev. Dr. C. S. Horne, of London. The subject of The Obligations and Opportunities of Congregationalism in Great Britain, America, and Other Countries was treated by representative speakers of the several countries; after which, on Wednesday, Sept. 27, the subject of Independence and Fellowship was presented by the Rev. Dr. A. J. Lyman, of Brooklyn, N. Y., and the Rev. John Brown, D.D., of Bedford, England, and that of Duty of the Stronger to the Weaker Churches, by the Rev. H. A. Thomas, chairman of the Congregational Union of England and Wales. A reception and dinner, given in the evening by the Congregational Club to the council, was marked by addresses of greeting from other denominations, made by Bishop William Lawrence (Protestant Episcopal); President A. H. Strong, of Rochester Theological Seminary (Baptist); President C. C. Hall, of Union Theological Seminary (Presbyterian); and Prof. F. G. Peabody, of Harvard University (Unitarian). The last day's sessions were given to the consideration of the civic relations of Christians and to aspects of foreign-mission work. The addresses were on The Christian Ideal of the State, by J. C. Rickett, M. P.; Municipal Government as a Sphere for Christian Men, by William Crosfield, of Liverpool, England, and S. B. Capen, of Boston; Adaptation of Methods to New Conditions in Foreign Missions, by the Rev. R. Wardlaw Thompson, senior foreign secretary of the London Missionary Society; and The Permanent Motive in Missionary Work, by the Rev. Dr. R. S. Storrs, ex-President of the American Board; with addresses in the evening on The Living Christ, by the Rev. Alfred Cave, D.D., of Hackney College, London, and The Holy Spirit in the Churches, by the Rev. Dr. F. W. Gunsaulus, President of Armour Institute, Chicago, Ill. The council unanimously passed a resolution recognizing and seconding the desire repeatedly expressed and recorded of the five great brotherhoods of men employed on railroads in the United States, Canada, and Mexico, and the re-enforcement of the declarations of these men by the four great organizations representing their wives, daughters, and women, and "affectionately urging" members and ministers of Congregational churches, "by word and act, to create such a public sentiment as will secure for the railway operatives the minimum of labor on the Lord's Day." A report on the future of the council, unanimously approved by a committee appointed to consider the subject, and likewise so approved by the council, recommended that such meetings as had been held in London and Boston continue to be held periodically at intervals of from five to ten years, as may from time to time appear to be desirable; that each council before rising appoint a provisional committee of fifteen, having power to fill vacancies, to carry out the directions of the council, and make preparations for the next meeting, fixing the time and place of its meeting in case other provision has not been made.

CONGRESS. The third session of the Fifty-fifth Congress began Monday, Dec. 5, 1898, at noon, and at 1.27 o'clock the President's message was received. It was as follows:

To the Senate and House of Representatives:

Notwithstanding the added burdens rendered necessary by the war our people rejoice in a very satisfactory and steadily increasing degree of prosperity, evidenced by the largest volume of business ever recorded. Manufacture has been productive, agricultural pursuits have yielded abundant returns, labor in all fields of industry is better rewarded, revenue legislation passed by the present Congress has increased the Treasury's receipts to the amount estimated by its authors; the finances of the Government have been successfully administered and its credit advanced to the first rank, while its currency has been maintained at the world's highest standard. Military service under a common flag and for a righteous cause has strengthened the national spirit and served to cement more closely than ever the fraternal bonds between every section of the country.

A review of the relation of the United States to other powers, always appropriate, is this year of primary importance in view of the momentous issues which have arisen, demanding in one instance the ultimate determination by arms and involving far-reaching consequences which will require the earnest attention of the Congress.

In my last annual message very full consideration was given to the question of the duty of the Government of the United States toward Spain and the Cuban insurrection as being by far the most important problem with which we were then called upon to deal. The considerations then advanced, and the exposition of the views therein expressed, disclosed my sense of the extreme gravity of the situation. Setting aside, as logically unfounded or practically inadmissible, the recognition of the Cuban insurgents as belligerents, the recognition of the independence of Cuba, neutral intervention to end the war by imposing a rational compromise between the contestants, intervention in favor of one or the other party, and forcible annexation of the island, I concluded it was honestly due to our friendly relations with Spain that she should be given a reasonable chance to realize her expectations of reform to which she had become irrevocably committed. Within a few weeks previously she had announced comprehensive plans which it was confidently asserted would be efficacious to remedy the evils so deeply affecting our own country, so injurious to the true interests of the mother country as well as to those of Cuba, and so repugnant to the universal sentiment of humanity.

The ensuing month brought little sign of real progress toward the pacification of Cuba. The autonomous administrations set up in the capital and some of the principal cities appeared not to gain the favor of the inhabitants nor to be able to extend their influence to the large extent of territory held by the insurgents, while the military arm, obviously unable to cope with the still active rebellion, continued many of the most objectionable and offensive policies of the government that had preceded it. No tangible relief was afforded the vast numbers of unhappy reconcentrados despite the reiterated professions made in that regard and the amount appropriated by Spain to that end. The proffered expedient of zones of cultivation proved illusory; indeed, no less practical nor more delusive promises of succor could well have been tendered to the exhausted and destitute people, stripped of all that

made life and home dear, and herded in a strange region among unsympathetic strangers hardly less necessitous than themselves.

By the end of December the mortality among them had frightfully increased. Conservative estimates from Spanish sources placed the deaths among these distressed people at over 40 per cent. from the time Gen. Weyler's decree of reconcentration was enforced. With the acquiescence of the Spanish authorities a scheme was adopted for relief by charitable contributions raised in this country and distributed, under the direction of the consul general and the several consuls, by noble and earnest individual effort through the organized agencies of the American Red Cross. Thousands of lives were thus saved, but many thousands more were inaccessible to such forms of aid.

The war continued on the old footing without comprehensive plan, developing only the same spasmodic encounters, barren of strategic result, that had marked the course of the earlier ten years' rebellion as well as the present insurrection from its start. No alternative save physical exhaustion of either combatant, and therewithal the practical ruin of the island, lay in sight, but how far distant no one could venture to conjecture.

At this juncture, on the 15th of February last, occurred the destruction of the battle ship *Maine* while rightfully lying in the harbor of Havana on a mission of international courtesy and good will—a catastrophe the suspicious nature and horror of which stirred the nation's heart profoundly. It is a striking evidence of the poise and sturdy good sense distinguishing our national character that this shocking blow, falling upon a generous people, already deeply touched by preceding events in Cuba, did not move them to an instant, desperate resolve to tolerate no longer the existence of a condition of danger and disorder at our doors that made possible such a deed, by whomsoever wrought. Yet the instinct of justice prevailed, and the nation anxiously awaited the result of the searching investigation at once set on foot. The finding of the naval board of inquiry established that the origin of the explosion was external by a submarine mine, and only halted, through lack of positive testimony, to fix the responsibility of its authorship.

All these things carried conviction to the most thoughtful, even before the finding of the naval court, that a crisis in our relations with Spain and toward Cuba was at hand. So strong was this belief that it needed but a brief Executive suggestion to the Congress to receive immediate answer to the duty of making instant provision for the possible and perhaps speedily probable emergency of war, and the remarkable, almost unique, spectacle was presented of a unanimous vote of both houses, on the 9th of March, appropriating \$50,000,000 "for the national defense and for each and every purpose connected therewith, to be expended at the discretion of the President." That this act of prevision came none too soon was disclosed when the application of the fund was undertaken. Our coasts were practically undefended. Our navy needed large provision for increased ammunition and supplies, and even numbers, to cope with any sudden attack from the navy of Spain, which comprised modern vessels of the highest type of Continental perfection. Our army also required enlargement of men and munitions. The details of the hurried preparation for the dreaded contingency is told in the reports of the Secretaries of War and of the Navy, and need not be repeated here. It is suffi-

cient to say that the outbreak of war, when it did come, found our nation not unprepared to meet the conflict.

Nor was the apprehension of coming strife confined to our own country. It was felt by the Continental powers, which on April 6, through their ambassadors and envoys, addressed to the Executive an expression of hope that humanity and moderation might mark the course of this Government and people, and that further negotiations would lead to an agreement which, while securing the maintenance of peace, would afford all necessary guarantees for the re-establishment of order in Cuba. In responding to that representation, I said I shared the hope the envoys had expressed that peace might be preserved in a manner to terminate the chronic condition of disturbance in Cuba so injurious and menacing to our interests and tranquillity, as well as shocking to our sentiments of humanity; and, while appreciating the humanitarian and disinterested character of the communication they had made on behalf of the powers, I stated the confidence of this Government, for its part, that equal appreciation would be shown for its own earnest and unselfish endeavors to fulfill a duty to humanity by ending a situation the indefinite prolongation of which had become insufferable.

Still animated by the hope of a peaceful solution, and obeying the dictates of duty, no effort was relaxed to bring about a speedy ending of the Cuban struggle. Negotiations to this object continued actively with the Government of Spain, looking to the immediate conclusion of a six months' armistice in Cuba, with a view to effect the recognition of her people's right to independence. Besides this, the instant revocation of the order of reconcentration was asked, so that the sufferers, returning to their homes and aided by united American and Spanish effort, might be put in a way to support themselves, and, by orderly resumption of the well-nigh destroyed productive energies of the island, contribute to the restoration of its tranquillity and well-being. Negotiations continued for some little time at Madrid, resulting in offers by the Spanish Government which could not but be regarded as inadequate. It was proposed to confide the preparation of peace to the insular Parliament, yet to be convened under the autonomous decrees of November, 1897, but without impairment in any wise of the constitutional powers of the Madrid Government, which, to that end, would grant an armistice, if solicited by the insurgents, for such time as the general in chief might see fit to fix. How and with what scope of discretionary powers the insular Parliament was expected to set about the "preparation" of peace did not appear. If it were to be by negotiation with the insurgents, the issue seemed to rest on the one side with a body chosen by a fraction of the electors in the districts under Spanish control, and on the other with the insurgent population holding the interior country, unrepresented in the so-called Parliament, and defiant at the suggestion of suing for peace.

Grieved and disappointed at this barren outcome of my sincere endeavors to reach a practicable solution, I felt it my duty to remit the whole question to the Congress. In the message of April 11, 1898, I announced that with this last overture in the direction of immediate peace in Cuba, and its disappointing reception by Spain, the effort of the Executive was brought to an end. I again reviewed the alternative courses of action which had been proposed, concluding that the only one consonant with international policy

and compatible with our firm-set historical traditions was intervention as a neutral to stop the war and check the hopeless sacrifice of life, even though that resort involved "hostile constraint upon both the parties to the contest, as well to enforce a truce as to guide the eventual settlement." The grounds justifying that step were the interests of humanity; the duty to protect the life and property of our citizens in Cuba; the right to check injury to our commerce and people through the devastation of the island; and, most important, the need of removing at once and forever the constant menace and the burdens entailed upon our Government by the uncertainties and perils of the situation caused by the unendurable disturbance in Cuba. I said:

"The long trial has proved that the object for which Spain has waged the war can not be attained. The fire of insurrection may flame or may smolder with varying seasons, but it has not been, and it is plain that it can not be, extinguished by present methods. The only hope of relief and repose from a condition which can no longer be endured is the enforced pacification of Cuba. In the name of humanity, in the name of civilization, in behalf of endangered American interests which give us the right and the duty to speak and to act, the war in Cuba must stop."

In view of all this, the Congress was asked to authorize and empower the President to take measures to secure a full and final termination of hostilities between Spain and the people of Cuba, and to secure in the island the establishment of a stable government, capable of maintaining order and observing its international obligations, insuring peace and tranquillity, and the security of its citizens as well as our own, and for the accomplishment of those ends to use the military and naval forces of the United States as might be necessary, with added authority to continue generous relief to the starving people of Cuba.

The response of the Congress, after nine days of earnest deliberation, during which the almost unanimous sentiment of your body was developed on every point save as to the expediency of coupling the proposed action with a formal recognition of the republic of Cuba as the true and lawful government of that island—a proposition which failed of adoption—the Congress, after conference, on the 19th of April, by a vote of 42 to 35 in the Senate and 311 to 6 in the House of Representatives, passed the memorable joint resolution declaring—

"First. That the people of the island of Cuba are, and of right ought to be, free and independent.

"Second. That it is the duty of the United States to demand, and the Government of the United States does hereby demand, that the Government of Spain at once relinquish its authority and government in the island of Cuba and withdraw its land and naval forces from Cuba and Cuban waters.

"Third. That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States, to such extent as may be necessary to carry these resolutions into effect.

"Fourth. That the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island except for the pacification thereof, and asserts its determination when that is accomplished to leave the government and control of the island to its people."

This resolution was approved by the Executive on the next day, April 20. A copy was at once communicated to the Spanish minister at this capital, who forthwith announced that his continuance in Washington had thereby become impossible, and asked for his passports, which were given him. He thereupon withdrew from Washington, leaving the protection of Spanish interests in the United States to the French ambassador and the Austro-Hungarian minister. Simultaneously with its communication to the Spanish minister here, Gen. Woodford, the American minister at Madrid, was telegraphed confirmation of the text of the joint resolution, and directed to communicate it to the Government of Spain with the formal demand that it at once relinquish its authority and government in the island of Cuba and withdraw its forces therefrom, coupling this demand with announcement of the intentions of this Government as to the future of the island, in conformity with the fourth clause of the resolution, and giving Spain until noon of April 23 to reply.

That demand, although, as above shown, officially made known to the Spanish envoy here, was not delivered at Madrid. After the instruction reached Gen. Woodford, on the morning of April 21, but before he could present it, the Spanish Minister of State notified him that upon the President's approval of the joint resolution the Madrid Government, regarding the act as "equivalent to an evident declaration of war," had ordered its minister in Washington to withdraw, thereby breaking off diplomatic relations between the two countries and ceasing all official communication between their respective representatives. Gen. Woodford thereupon demanded his passports, and quitted Madrid the same day.

Spain having thus denied the demand of the United States and initiated that complete form of rupture of relations which attends a state of war, the executive powers authorized by the resolution were at once used by me to meet the enlarged contingency of actual war between sovereign states. On April 22 I proclaimed a blockade of the north coast of Cuba, including ports on said coast between Cardenas and Bahia Honda and the port of Cienfuegos on the south coast of Cuba; and on the 23d I called for volunteers to execute the purpose of the resolution. By my message of April 25 the Congress was informed of the situation, and I recommended formal declaration of the existence of a state of war between the United States and Spain. The Congress accordingly voted on the same day the act approved April 25, 1898, declaring the existence of such war from and including the 21st day of April, and re-enacted the provision of the resolution of April 20, directing the President to use all the armed forces of the nation to carry that act into effect. Due notification of the existence of war as aforesaid was given April 25 by telegraph to all the governments with which the United States maintain relations, in order that their neutrality might be assured during the war. The various governments responded with proclamations of neutrality, each after its own methods. It is not among the least gratifying incidents of the struggle that the obligations of neutrality were impartially discharged by all, often under delicate and difficult circumstances.

In further fulfillment of international duty I issued, April 26, 1898, a proclamation announcing the treatment proposed to be accorded to vessels and their cargoes as to blockade, contraband, the exercise of the right of search, and the immunity of neutral flags and neutral goods under the enemy's

flag. A similar proclamation was made by the Spanish Government. In the conduct of hostilities the rules of the Declaration of Paris, including abstention from resort to privateering, have accordingly been observed by both belligerents, although neither was a party to that declaration.

Our country thus, after an interval of half a century of peace with all nations, found itself engaged in deadly conflict with a foreign enemy. Every nerve was strained to meet the emergency. The response to the initial call for 125,000 volunteers was instant and complete, as was also the result of the second call of May 25 for 75,000 additional volunteers. The ranks of the regular army were increased to the limits provided by the act of April 26, 1898.

The enlisted force of the navy on the 15th day of August, when it reached its maximum, numbered 24,123 men and apprentices. One hundred and three vessels were added to the navy by purchase, 1 was presented to the Government, 1 leased, and the 4 vessels of the International Navigation Company—the St. Paul, St. Louis, New York, and Paris—were chartered. In addition to these the revenue cutters and lighthouse tenders were turned over to the Navy Department and became temporarily a part of the auxiliary navy.

The maximum effective fighting force of the navy during the war, separated into classes, was as follows:

Four battle ships of the first class; 1 battle ship of the second class; 2 armored cruisers; 6 coast-defense monitors; 1 armored ram; 12 protected cruisers; 3 unprotected cruisers; 18 gunboats; 1 dynamite cruiser; 11 torpedo boats; vessels of the old navy, including monitors, 14. Auxiliary navy: Eleven auxiliary cruisers; 28 converted yachts; 27 converted tugs; 19 converted colliers; 15 revenue cutters; 4 lighthouse tenders; and 19 miscellaneous vessels.

Much alarm was felt along our entire Atlantic seaboard lest some attack might be made by the enemy. Every precaution was taken to prevent possible injury to our great cities lying along the coast. Temporary garrisons were provided, drawn from the State militia; infantry and light batteries were drawn from the volunteer force. About 12,000 troops were thus employed. The coast-signal service was established for observing the approach of an enemy's ships to the coast of the United States, and the life-saving and lighthouse services co-operated, which enabled the Navy Department to have all portions of the Atlantic coast, from Maine to Texas, under observation.

The auxiliary navy was created under the authority of Congress, and was officered and manned by the naval militia of the several States. This organization patrolled the coast, and performed the duty of a second line of defense.

Under the direction of the chief of engineers submarine mines were placed at the most exposed points. Before the outbreak of the war permanent mining casemates and cable galleries had been constructed at nearly all important harbors. Most of the torpedo material was not to be found in the market, and had to be specially manufactured. Under date of April 19 district officers were directed to take all preliminary measures, short of the actual attaching of the loaded mines to the cables, and on April 22 telegraphic orders were issued to place the loaded mines in position.

The aggregate number of mines placed was 1,535, at the principal harbors from Maine to California. Preparations were also made for the

planting of mines at certain other harbors, but owing to the early destruction of the Spanish fleet these mines were not placed.

The Signal Corps was promptly organized, and performed service of the most difficult and important character. Its operations during the war covered the electrical connection of all coast fortifications, the establishment of telephonic and telegraphic facilities for the camps at Manila, Santiago, and in Puerto Rico. There were constructed 300 miles of line at 10 great camps, thus facilitating military movements from those points in a manner heretofore unknown in military administration. Field telegraph lines were established and maintained under the enemy's fire at Manila, and later the Manila-Hong-Kong cable was reopened.

In Puerto Rico cable communications were opened over a discontinued route, and on land the headquarters of the commanding officer was kept in telegraphic or telephonic communication with the division commanders on four different lines of operations.

There was placed in Cuban waters a completely outfitted cable ship, with war cables and cable gear, suitable both for the destruction of communications belonging to the enemy and the establishment of our own. Two ocean cables were destroyed under the enemy's batteries at Santiago. The day previous to the landing of Gen. Shafter's corps at Caimanera, within 20 miles of the landing place, cable communications were established and a cable station opened giving direct communication with the Government at Washington. This service was invaluable to the Executive in directing the operations of the army and navy. With a total force of over 1,300, the loss was by disease in camp and field, officers and men included, only 5.

The national defense fund of \$50,000,000 was expended in large part by the army and navy, and the objects for which it was used are fully shown in the reports of the several secretaries. It was a most timely appropriation, enabling the Government to strengthen its defenses and make preparations greatly needed in case of war.

This fund being inadequate to the requirements of equipment and for the conduct of the war, the patriotism of the Congress provided the means in the war-revenue act of June 13 by authorizing a 3-per-cent. popular loan not to exceed \$400,000,000 and by levying additional imposts and taxes. Of the authorized loan, \$200,000,000 were offered and promptly taken, the subscriptions so far exceeding the call as to cover it many times over, while, preference being given to the smaller bids, no single allotment exceeded \$5,000. This was a most encouraging and significant result, showing the vast resources of the nation and the determination of the people to uphold their country's honor.

It is not within the province of this message to narrate the history of the extraordinary war that followed the Spanish declaration of April 21, but a brief recital of its more salient features is appropriate.

The first encounter of the war in point of date took place April 27, when a detachment of the blockading squadron made a reconnaissance in force at Matanzas, shelled the harbor forts, and demolished several new works in construction.

The next engagement was destined to mark a memorable epoch in maritime warfare. The Pacific fleet, under Commodore George Dewey, had lain for some weeks at Hong-Kong. Upon the colonial proclamation of neutrality being issued, and the customary twenty-four hours' notice

being given, it repaired to Mirs Bay, near Hong-Kong, whence it proceeded to the Philippine Islands under telegraphed orders to capture or destroy the formidable Spanish fleet then assembled at Manila. At daybreak on the 1st of May the American force entered Manila Bay, and, after a few hours' engagement, effected the total destruction of the Spanish fleet, consisting of 10 war ships and a transport, besides capturing the naval station and forts at Cavité, thus annihilating the Spanish naval power in the Pacific Ocean and completely controlling the bay of Manila, with the ability to take the city at will. Not a life was lost on our ships, the wounded only numbering 7, while not a vessel was materially injured. For this gallant achievement the Congress, upon my recommendation, fitly bestowed upon the actors preferment and substantial reward.

The effect of this remarkable victory upon the spirit of our people and upon the fortunes of the war was instant. A prestige of invincibility thereby attached to our arms, which continued throughout the struggle. Re-enforcements were hurried to Manila, under the command of Major-Gen. Merritt, and firmly established within sight of the capital, which lay helpless before our guns.

On the 7th day of May the Government was advised officially of the victory at Manila, and at once inquired of the commander of our fleet what troops would be required. The information was received on the 15th day of May, and the first army expedition sailed May 25 and arrived off Manila June 30. Other expeditions soon followed, the total force consisting of 641 officers and 15,058 enlisted men.

Only reluctance to cause needless loss of life and property prevented the early storming and capture of the city, and therewith the absolute military occupancy of the whole group. The insurgents meanwhile had resumed the active hostilities suspended by the uncompleted truce of December, 1897. Their forces invested Manila from the northern and eastern side, but were constrained by Admiral Dewey and Gen. Merritt from attempting an assault. It was fitting that whatever was to be done in the way of decisive operations in that quarter should be accomplished by the strong arm of the United States alone. Obeying the stern precept of war, which enjoins the overcoming of the adversary and the extinction of his power wherever assailable as the speedy and sure means to win a peace, divided victory was not permissible, for no partition of the rights and responsibilities attending the enforcement of a just and advantageous peace could be thought of.

Following the comprehensive scheme of general attack, powerful forces were assembled at various points on our coast to invade Cuba and Puerto Rico. Meanwhile naval demonstrations were made at several exposed points. On May 11 the cruiser Wilmington and torpedo boat Winslow were unsuccessful in an attempt to silence the batteries at Cardenas, a gallant ensign, Worth Bagley, and 4 seamen falling. These grievous fatalities were strangely enough among the very few which occurred during our naval operations in this extraordinary conflict.

Meanwhile the Spanish naval preparations had been pushed with great vigor. A powerful squadron under Admiral Cervera, which had assembled at the Cape Verde Islands before the outbreak of hostilities, had crossed the ocean, and by its erratic movements in the Caribbean Sea delayed our military plans while baffling the pursuit of our fleets. For a time fears were felt

lest the Oregon and Marietta, then nearing home after their long voyage from San Francisco of over 15,000 miles, might be surprised by Admiral Cervera's fleet, but their fortunate arrival dispelled these apprehensions and lent much needed re-enforcement. Not until Admiral Cervera took refuge in the harbor of Santiago de Cuba, about May 19, was it practicable to plan a systematic naval and military attack upon the Antillean possessions of Spain.

Several demonstrations occurred on the coasts of Cuba and Puerto Rico in preparation for the larger event. On May 13 the North Atlantic squadron shelled San Juan de Puerto Rico. On May 30 Commodore Schley's squadron bombarded the forts guarding the mouth of Santiago harbor. Neither attack had any material result. It was evident that well-ordered land operations were indispensable to achieve a decisive advantage.

The next act in the war thrilled not alone the hearts of our countrymen but the world by its exceptional heroism. On the night of June 3 Lieut. Hobson, aided by seven devoted volunteers, blocked the narrow outlet from Santiago harbor by sinking the collier Merrimac in the channel, under a fierce fire from the shore batteries, escaping with their lives as by a miracle, but falling into the hands of the Spaniards. It is a most gratifying incident of the war that the bravery of this little band of heroes was cordially appreciated by the Spanish admiral, who sent a flag of truce to notify Admiral Sampson of their safety and to compliment them on their daring act. They were subsequently exchanged July 7.

By June 7 the cutting of the last Cuban cable isolated the island. Thereafter the invasion was vigorously prosecuted. On June 10, under a heavy protecting fire, a landing of 600 marines from the Oregon, Marblehead, and Yankee was effected in Guantanamo Bay, where it had been determined to establish a naval station.

This important and essential port was taken from the enemy after severe fighting by the marines, who were the first organized force of the United States to land in Cuba.

The position so won was held despite desperate attempts to dislodge our forces. By June 16 additional forces were landed and strongly intrenched. On June 22 the advance of the invading army under Major-Gen. Shafter landed at Daiquiri, about 15 miles east of Santiago. This was accomplished under great difficulties, but with marvelous dispatch. On June 23 the movement against Santiago was begun. On the 24th the first serious engagement took place, in which the First and Tenth Cavalry and the First United States Volunteer Cavalry, Gen. Young's brigade of Gen. Wheeler's division, participated, losing heavily. By nightfall, however, ground within 5 miles of Santiago was won. The advantage was steadily increased. On July 1 a severe battle took place, our forces gaining the outworks of Santiago; on the 2d El Caney and San Juan were taken after a desperate charge, and the investment of the city was completed. The navy co-operated by shelling the town and the coast forts.

On the day following this brilliant achievement of our land forces, the 3d of July, occurred the decisive naval combat of the war. The Spanish fleet, attempting to leave the harbor, was met by the American squadron under command of Commodore Sampson. In less than three hours all the Spanish ships were destroyed, the two torpedo boats being sunk, and the *Maria Teresa*, *Almirante Oquendo*, *Vizcaya*, and *Cristobal Colon* driven ashore. The Spanish admiral and over

1,300 men were taken prisoners, while the enemy's loss of life was deplorably large, some 600 perishing. On our side but one man was killed, on the Brooklyn, and one man seriously wounded. Although our ships were repeatedly struck, not one was seriously injured. Where all so conspicuously distinguished themselves, from the commanders to the gunners and the unnamed heroes in the boiler rooms, each and all contributing toward the achievement of this astounding victory, for which neither ancient nor modern history affords a parallel in the completeness of the event and the marvelous disproportion of casualties, it would be invidious to single out any for especial honor. Deserved promotion has rewarded the more conspicuous actors—the nation's profoundest gratitude is due to all of these brave men who by their skill and devotion in a few short hours crushed the sea power of Spain and wrought a triumph whose decisiveness and far-reaching consequences can scarcely be measured. Nor can we be unmindful of the achievements of our builders, mechanics, and artisans for their skill in the construction of our war ships.

With the catastrophe of Santiago Spain's effort upon the ocean virtually ceased. A spasmodic effort toward the end of June to send her Mediterranean fleet, under Admiral Camara, to relieve Manila was abandoned, the expedition being recalled after it had passed through the Suez Canal.

The capitulation of Santiago followed. The city was closely besieged by land, while the entrance of our ships into the harbor cut off all relief on that side. After a truce to allow of the removal of noncombatants protracted negotiations continued from July 3 until July 15, when, under menace of immediate assault, the preliminaries of surrender were agreed upon. On the 17th Gen. Shafter occupied the city. The capitulation embraced the entire eastern end of Cuba. The number of Spanish soldiers surrendering was 22,000, all of whom were subsequently conveyed to Spain at the charge of the United States. The story of this successful campaign is told in the report of the Secretary of War, which will be laid before you. The individual valor of officers and soldiers was never more strikingly shown than in the several engagements leading to the surrender of Santiago, while the prompt movements and successive victories won instant and universal applause. To those who gained this complete triumph, which established the ascendancy of the United States upon land as the fight off Santiago had fixed our supremacy on the seas, the earnest and lasting gratitude of the nation is unsparingly due. Nor should we alone remember the gallantry of the living; the dead claim our tears, and our losses by battle and disease must cloud any exultation at the result and teach us to weigh the awful cost of war, however rightful the cause or signal the victory.

With the fall of Santiago the occupation of Puerto Rico became the next strategic necessity. Gen. Miles had previously been assigned to organize an expedition for that purpose. Fortunately he was already at Santiago, where he had arrived on the 11th of July with re-enforcements for Gen. Shafter's army.

With these troops, consisting of 3,415 infantry and artillery, two companies of engineers, and one company of the Signal Corps, Gen. Miles left Guantanamo on July 21, having nine transports convoyed by the fleet under Capt. Higginson, with the *Massachusetts* (flagship), *Dixie*, *Gloucester*, *Columbia*, and *Yale*, the two latter carrying troops. The expedition landed at Guanica July 25, which port was entered with little opposition.

Here the fleet was joined by the Annapolis and the Wasp, while the Puritan and Amphitrite went to San Juan and joined the New Orleans, which was engaged in blockading that port. The major general commanding was subsequently re-enforced by Gen. Schwan's brigade of the Third Army Corps, by Gen. Wilson with a part of his division, and also by Gen. Brooke with a part of his corps, numbering in all 16,973 officers and men.

On July 27 he entered Ponce, one of the most important ports in the island, from which he thereafter directed operations for the capture of the island.

With the exception of encounters with the enemy at Guayama, Hormigueros, Coamo, and Yauco, and an attack on a force landed at Cape San Juan, there was no serious resistance. The campaign was prosecuted with great vigor, and by the 12th of August much of the island was in our possession and the acquisition of the remainder was only a matter of a short time. At most of the points in the island our troops were enthusiastically welcomed. Protestations of loyalty to the flag and gratitude for delivery from Spanish rule met our commanders at every stage. As a potent influence toward peace the outcome of the Puerto Rican expedition was of great consequence, and generous commendation is due to those who participated in it.

The last scene of the war was enacted at Manila, its starting place. On Aug. 15, after a brief assault upon the works by the land forces, in which the squadron assisted, the capital surrendered unconditionally. The casualties were comparatively few. By this the conquest of the Philippine Islands, virtually accomplished when the Spanish capacity for resistance was destroyed by Admiral Dewey's victory on the 1st of May, was formally sealed. To Gen. Merritt, his officers and men, for their uncomplaining and devoted service and for their gallantry in action, the nation is sincerely grateful. Their long voyage was made with singular success, and the soldierly conduct of the men, most of whom were without previous experience in the military service, deserves unmeasured praise.

The total casualties in killed and wounded in the army during the war with Spain were: Officers killed, 23; enlisted men killed, 257; total, 280; officers wounded, 113; enlisted men wounded, 1,464; total, 1,577. Of the navy: Killed, 17; wounded, 67; died as result of wounds, 1; invalided from service, 6; total, 91.

It will be observed that while our navy was engaged in two great battles and in numerous perilous undertakings in blockade and bombardment, and more than 50,000 of our troops were transported to distant lands and were engaged in assault and siege and battle and many skirmishes in unfamiliar territory, we lost in both arms of the service a total of 1,668 killed and wounded; and in the entire campaign by land and sea we did not lose a gun or a flag or a transport or a ship, and with the exception of the crew of the Merrimac not a soldier or sailor was taken prisoner.

On Aug. 7, forty-six days from the date of the landing of Gen. Shafter's army in Cuba and twenty-one days from the surrender of Santiago, the United States troops commenced embarkation for home, and our entire force was returned to the United States as early as Aug. 24. They were absent from the United States only two months.

It is fitting that I should bear testimony to the patriotism and devotion of that large portion of

our army which, although eager to be ordered to the post of greatest exposure, fortunately was not required outside of the United States. They did their whole duty, and, like their comrades at the front, have earned the gratitude of the nation. In like manner the officers and men of the army and navy who remained in their departments and stations faithfully performing most important duties connected with the war, and whose requests for assignment in the field and at sea I was compelled to refuse because their services were indispensable here, are entitled to the highest commendation. It is my regret that there seems to be no provision for their suitable recognition.

In this connection it is a pleasure for me to mention in terms of cordial appreciation the timely and useful work of the American National Red Cross both in relief measures preparatory to the campaigns, in sanitary assistance at several of the camps of assemblage, and later, under the able and experienced leadership of the president of the society, Miss Clara Barton, on the fields of battle and in the hospitals at the front in Cuba. Working in conjunction with the governmental authorities and under their sanction and approval, and with the enthusiastic co-operation of many patriotic women and societies in the various States, the Red Cross has fully maintained its already high reputation for intense earnestness and ability to exercise the noble purposes of its international organization, thus justifying the confidence and support which it has received at the hands of the American people. To the members and officers of this society and all who aided them in their philanthropic work the sincere and lasting gratitude of the soldiers and the public is due and is freely accorded.

In tracing these events we are constantly reminded of our obligations to the divine Master for his watchful care over us and his safe guidance, for which the nation makes reverent acknowledgment and offers humble prayer for the continuance of his favor.

The annihilation of Admiral Cervera's fleet, followed by the capitulation of Santiago, having brought to the Spanish Government a realizing sense of the hopelessness of continuing a struggle now become wholly unequal, it made overtures of peace through the French ambassador, who with the assent of his Government had acted as the friendly representative of Spanish interests during the war. On the 26th of July M. Cambon presented a communication signed by the Duke of Almodóvar, the Spanish Minister of State, inviting the United States to state the terms upon which it would be willing to make peace. On the 30th of July, by a communication addressed to the Duke of Almodóvar and handed to M. Cambon, the terms of this Government were announced, substantially as in the protocol afterward signed. On the 10th of August the Spanish reply, dated Aug. 7, was handed by M. Cambon to the Secretary of State. It accepted unconditionally the terms imposed as to Cuba, Puerto Rico, and an island of the Ladronez group, but appeared to seek to introduce inadmissible reservations in regard to our demand as to the Philippine Islands. Conceiving that discussion on this point could neither be practical nor profitable, I directed that in order to avoid misunderstanding the matter should be forthwith closed by proposing the embodiment in a formal protocol of the terms upon which the negotiations for peace were to be undertaken. The vague and inexplicit suggestions of the Spanish note could not be ac-

cepted, the only reply being to present as a virtual ultimatum a draft of protocol embodying the precise terms tendered to Spain in our note of July 30, with added stipulations of detail as to the appointment of commissioners to arrange for the evacuation of the Spanish Antilles. On Aug. 12 M. Cambon announced his receipt of full powers to sign the protocol so submitted. Accordingly, on the afternoon of Aug. 12, M. Cambon, as the plenipotentiary of Spain, and the Secretary of State, as the plenipotentiary of the United States, signed a protocol providing—

"ARTICLE I.—Spain will relinquish all claim of sovereignty over and title to Cuba.

"ART. II.—Spain will cede to the United States the island of Puerto Rico and other islands now under Spanish sovereignty in the West Indies, and also an island in the Ladronez to be selected by the United States.

"ART. III.—The United States will occupy and hold the city, bay, and harbor of Manila pending the conclusion of a treaty of peace which shall determine the control, disposition, and government of the Philippines."

The fourth article provided for the appointment of joint commissions on the part of the United States and Spain, to meet in Havana and San Juan respectively, for the purpose of arranging and carrying out the details of the stipulated evacuation of Cuba, Puerto Rico, and other Spanish islands in the West Indies.

The fifth article provided for the appointment of not more than five commissioners on each side, to meet at Paris not later than Oct. 1, and to proceed to the negotiation and conclusion of a treaty of peace, subject to ratification according to the respective constitutional forms of the two countries.

The sixth and last article provided that upon the signature of the protocol hostilities between the two countries should be suspended, and that notice to that effect should be given as soon as possible by each Government to the commanders of its military and naval forces.

Immediately upon the conclusion of the protocol I issued a proclamation of Aug. 12 suspending hostilities on the part of the United States. The necessary orders to that end were at once given by telegraph. The blockade of the ports of Cuba and San Juan de Puerto Rico was in like manner raised. On the 18th of August the muster out of 100,000 volunteers, or as near that number as was found to be practicable, was ordered.

On the 1st of December 101,165 officers and men had been mustered out and discharged from the service, and 9,002 more will be mustered out by the 10th of this month. Also a corresponding number of general and general staff officers have been honorably discharged the service.

The military commissions to superintend the evacuation of Cuba, Puerto Rico, and the adjacent islands were forthwith appointed: For Cuba, Major-Gen. James F. Wade, Rear-Admiral William T. Sampson, Major-Gen. Matthew C. Butler; for Puerto Rico, Major-Gen. John R. Brooke, Rear-Admiral Winfield S. Schley, Brig-Gen. William W. Gordon, who soon afterward met the Spanish commissioners at Havana and San Juan respectively. The Puerto Rican joint commission speedily accomplished its task, and by the 18th of October the evacuation of the island was completed. The United States flag was raised over the island at noon on that day. The administration of its affairs has been provisionally intrusted to a military governor until the Congress shall otherwise provide. The Cuban joint commission

has not yet terminated its labors. Owing to the difficulties in the way of removing the large numbers of Spanish troops still in Cuba, the evacuation can not be completed before the 1st of January next.

Pursuant to the fifth article of the protocol, I appointed William R. Day, lately Secretary of State, Cushman K. Davis, William P. Fyre, and George Gray, Senators of the United States, and Whitelaw Reid, to be the peace commissioners on the part of the United States. Proceeding in due season to Paris, they there met on the 1st of October five commissioners, similarly appointed on the part of Spain. Their negotiations have made hopeful progress, so that I trust soon to be able to lay a definitive treaty of peace before the Senate, with a review of the steps leading to its signature.

I do not discuss at this time the government or the future of the new possessions which will come to us as the result of the war with Spain. Such discussion will be appropriate after the treaty of peace shall be ratified. In the meantime and until the Congress has legislated otherwise it will be my duty to continue the military governments which have existed since our occupation, and give to the people security in life and property and encouragement under a just and beneficent rule.

As soon as we are in possession of Cuba and have pacified the island it will be necessary to give aid and direction to its people to form a government for themselves. This should be undertaken at the earliest moment consistent with safety and assured success. It is important that our relations with this people shall be of the most friendly character and our commercial relations close and reciprocal. It should be our duty to assist in every proper way to build up the waste places of the island, encourage the industry of the people, and assist them to form a government which shall be free and independent, thus realizing the best aspirations of the Cuban people.

Spanish rule must be replaced by a just, benevolent, and humane government, created by the people of Cuba, capable of performing all international obligations, and which shall encourage thrift, industry, and prosperity, and promote peace and good will among all of the inhabitants, whatever may have been their relations in the past. Neither revenge nor passion should have a place in the new government. Until there is complete tranquillity in the island and a stable government inaugurated military occupation will be continued.

With the one exception of the rupture with Spain the intercourse of the United States with the great family of nations has been marked with cordiality, and the close of the eventful year finds most of the issues that necessarily arise in the complex relations of sovereign states adjusted or presenting no serious obstacle to a just and honorable solution by amicable agreement.

A long unsettled dispute as to the extended boundary between the Argentine Republic and Chili, stretching along the Andean crests from the southern border of the Atacama Desert to Magellan Straits, nearly a third of the length of the South American continent, assumed an acute stage in the early part of the year, and afforded to this Government occasion to express the hope that the resort to arbitration, already contemplated by existing conventions between the parties, might prevail despite the grave difficulties arising in its application. I am happy to say that arrangements to this end have been perfected, the questions of fact upon which the re-

spective commissioners were unable to agree being in course of reference to her Britannic Majesty for determination. A residual difference touching the northern boundary line across the Atacama Desert, for which existing treaties provided no adequate adjustment, bids fair to be settled in like manner by a joint commission, upon which the United States minister at Buenos Ayres has been invited to serve as umpire in the last resort.

I have found occasion to approach the Argentine Government with a view to removing differences of rate charges imposed upon the cables of an American corporation in the transmission between Buenos Ayres and the cities of Uruguay and Brazil of through messages passing from and to the United States. Although the matter is complicated by exclusive concessions by Uruguay and Brazil to foreign companies, there is strong hope that a good understanding will be reached, and that the important channels of commercial communication between the United States and the Atlantic cities of South America may be freed from an almost prohibitory discrimination.

In this relation I may be permitted to express my sense of the fitness of an international agreement whereby the interchange of messages over connecting cables may be regulated on a fair basis of uniformity. The world has seen the postal system developed from a congeries of independent and exclusive services into a well-ordered union, of which all countries enjoy the manifold benefits. It would be strange were the nations not in time brought to realize that modern civilization, which owes so much of its progress to the annihilation of space by the electric force, demands that this all-important means of communication be a heritage of all peoples, to be administered and regulated in their common behoof. A step in this direction was taken when the international convention of 1884 for the protection of submarine cables was signed, and the day is, I trust, not far distant when this medium for the transmission of thought from land to land may be brought within the domain of international concert as completely as is the material carriage of commerce and correspondence upon the face of the waters that divide them.

The claim of Thomas Jefferson Page against Argentina, which has been pending many years, has been adjusted. The sum awarded by the Congress of Argentina was \$4,242.35.

The sympathy of the American people has justly been offered to the ruler and the people of Austria-Hungary by reason of the affliction that has lately befallen them in the assassination of the Empress-Queen of that historic realm.

On the 10th of September, 1897, a conflict took place at Latimer, Pa., between a body of striking miners and the sheriff of Luzerne County and his deputies, in which 22 miners were killed and 44 wounded, of whom 10 of the killed and 12 of the wounded were Austrian and Hungarian subjects. This deplorable event naturally aroused the solicitude of the Austro-Hungarian Government, which, on the assumption that the killing and wounding involved the unjustifiable misuse of authority, claimed reparation for the sufferers. Apart from the searching investigation and peremptory action of the authorities of Pennsylvania, the Federal Executive took appropriate steps to learn the merits of the case, in order to be in a position to meet the urgent complaint of a friendly power. The sheriff and his deputies, having been indicted for murder, were tried and acquitted, after protracted proceedings and the hearing of hundreds of witnesses, on the ground

that the killing was in the line of their official duty to uphold law and preserve public order in the State. A representative of the Department of Justice attended the trial and reported its course fully. With all the facts in its possession, this Government expects to reach a harmonious understanding on the subject with that of Austria-Hungary, notwithstanding the renewed claim of the latter, after learning the result of the trial, for indemnity for its injured subjects.

Despite the brief time allotted for preparation, the exhibits of this country at the Universal Exposition at Brussels in 1897 enjoyed the singular distinction of a larger proportion of awards, having regard to the number and classes of articles entered, than those of other countries. The worth of such a result in making known our national capacity to supply the world's markets is obvious.

Exhibitions of this international character are becoming more frequent as the exchanges of commercial countries grow more intimate and varied. Hardly a year passes that this Government is not invited to national participation at some important foreign center, but often on too short notice to permit of recourse to Congress for the power and means to do so. My predecessors have suggested the advisability of providing by a general enactment and a standing appropriation for accepting such invitations and for representation of this country by a commission. This plan has my cordial approval.

I trust that the Belgian restrictions on the importation of cattle from the United States, originally adopted as a sanitary precaution, will at an early day be relaxed as to their present features of hardship and discrimination, so as to admit live cattle under due regulation of their slaughter after landing. I am hopeful, too, of favorable change in the Belgian treatment of our preserved and salted meats. The growth of direct trade between the two countries, not alone for Belgian consumption and Belgian products, but by way of transit from and to other continental states, has been both encouraging and beneficial. No effort will be spared to enlarge its advantages by seeking the removal of needless impediments and by arrangements for increased commercial exchange.

The year's events in Central America deserve more than passing mention.

A menacing rupture between Costa Rica and Nicaragua was happily composed by the signature of a convention between the parties, with the concurrence of the Guatemalan representative as a mediator, the act being negotiated and signed on board the United States steamship *Alert*, then lying in Central American waters. It is believed that the good offices of our envoy and of the commander of that vessel contributed toward this gratifying outcome.

In my last annual message the situation was presented with respect to the diplomatic representation of this Government in Central America, created by the association of Nicaragua, Honduras, and Salvador, under the title of the Greater Republic of Central America, and the delegation of their international functions to the Diet thereof. While the representative character of the Diet was recognized by my predecessor, and has been confirmed during my administration by receiving its accredited envoy and granting exequaturs to consuls commissioned under its authority, that recognition was qualified by the distinct understanding that the responsibility of each of the component sovereign republics toward the United States remained wholly unaffected.

This proviso was needful inasmuch as the compact of the three republics was at the outset an association whereby certain representative functions were delegated to a tripartite commission rather than a federation possessing centralized powers of government and administration. In this view of their relation and of the relation of the United States to the several republics, a change in the representation of this country in Central America was neither recommended by the Executive nor initiated by Congress; thus leaving one of our envoys accredited as heretofore separately to two states of the Greater Republic, Nicaragua and Salvador, and to a third state, Costa Rica, which was not a party to the compact, while our other envoy was similarly accredited to a union state—Honduras—and a non-union state—Guatemala. The result has been that the one has presented credentials only to the President of Costa Rica, the other having been received only by the Government of Guatemala.

Subsequently the three associated republics entered into negotiations for taking the steps forecast in the original compact. A convention of their delegates framed for them a federal constitution under the name of the United States of Central America, and provided for a central federal government and legislature. Upon ratification by the constituent states, the 1st of November last was fixed for the new system to go into operation. Within a few weeks thereafter the plan was severely tested by revolutionary movements arising, with a consequent demand for unity of action on the part of the military power of the federal states to suppress them. Under this strain the new union seems to have been weakened through the withdrawal of its more important members. This Government was not officially advised of the installation of the federation, and has maintained an attitude of friendly expectancy, while in nowise relinquishing the position held from the outset that the responsibilities of the several states toward us remained unaltered by their tentative relations among themselves.

The Nicaragua Canal Commission, under the chairmanship of Rear-Admiral John G. Walker, appointed July 24, 1897, under the authority of a provision in the sundry civil act of June 4 of that year, has nearly completed its labors, and the results of its exhaustive inquiry into the proper route, the feasibility, and the cost of construction of an interoceanic canal by a Nicaraguan route will be laid before you. In the performance of its task the commission received all possible courtesy and assistance from the governments of Nicaragua and Costa Rica, which thus testified their appreciation of the importance of giving a speedy and practical outcome to the great project that has for so many years engrossed the attention of the respective countries.

As the scope of the recent inquiry embraced the whole subject with the aim of making plans and surveys for a canal by the most convenient route, it necessarily included a review of the results of previous surveys and plans, and in particular those adopted by the Maritime Canal Company under its existing concessions from Nicaragua and Costa Rica, so that to this extent those grants necessarily hold as essential a part in the deliberations and conclusions of the canal commission as they have held and must needs hold in the discussion of the matter by the Congress. Under these circumstances, and in view of overtures made to the governments of Nicaragua and Costa Rica by other parties for a new canal con-

cession predicated on the assumed approaching lapse of the contracts of the Maritime Canal Company with those states, I have not hesitated to express my conviction that considerations of expediency and international policy as between the several governments interested in the construction and control of an interoceanic canal by this route require the maintenance of the *status quo* until the canal commission shall have reported and the United States Congress shall have had the opportunity to pass finally upon the whole matter during the present session without prejudice by reason of any change in the existing conditions.

Nevertheless, it appears that the Government of Nicaragua, as one of its last sovereign acts before merging its powers in those of the newly formed United States of Central America, has granted an optional concession to another association, to become effective on the expiration of the present grant. It does not appear what surveys have been made or what route is proposed under this contingent grant, so that an examination of the feasibility of its plans is necessarily not embraced in the report of the canal commission. All these circumstances suggest the urgency of some definite action by the Congress at this session if the labors of the past are to be utilized and the linking of the Atlantic and Pacific Oceans by a practical water way is to be realized. That the construction of such a maritime highway is now more than ever indispensable to that intimate and ready intercommunication between our eastern and western seaboard demanded by the annexation of the Hawaiian Islands and the prospective expansion of our influence and commerce in the Pacific, and that our national policy now more imperatively than ever calls for its control by this Government, are propositions which I doubt not the Congress will duly appreciate and wisely act upon.

A convention providing for the revival of the late United States and Chilean Claims Commission and the consideration of claims which were duly presented to the late commission, but not considered because of the expiration of the time limited for the duration of the commission, was signed May 24, 1897, and has remained unacted upon by the Senate. The term therein fixed for effecting the exchange of ratifications having elapsed, the convention falls unless the time be extended by amendment, which I am endeavoring to bring about, with the friendly concurrence of the Chilean Government.

The United States has not been an indifferent spectator of the extraordinary events transpiring in the Chinese Empire, whereby portions of its maritime provinces are passing under the control of various European powers; but the prospect that the vast commerce which the energy of our citizens and the necessity of our staple productions for Chinese uses has built up in those regions may not be prejudiced through any exclusive treatment by the new occupants has obviated the need of our country becoming an actor in the scene. Our position among nations, having a large Pacific coast and a constantly expanding direct trade with the farther Orient, gives us the equitable claim to consideration and friendly treatment in this regard, and it will be my aim to subserve our large interests in that quarter by all means appropriate to the constant policy of our Government. The territories of Kiauchau, of Wei-Hai-Wei, and of Port Arthur and Talienwan, leased to Germany, Great Britain, and Russia respectively, for terms of years, will, it is announced, be open to international commerce

during such alien occupation; and if no discriminating treatment of American citizens and their trade be found to exist, or be hereafter developed, the desire of this Government would appear to be realized.

In this relation, as showing the volume and value of our exchanges with China and the peculiarly favorable conditions which exist for their expansion in the normal course of trade, I refer to the communication addressed to the Speaker of the House of Representatives by the Secretary of the Treasury on the 14th of last June, with its accompanying letter of the Secretary of State, recommending an appropriation for a commission to study the commercial and industrial conditions in the Chinese Empire and report as to the opportunities for and obstacles to the enlargement of markets in China for the raw products and manufactures of the United States. Action was not taken thereon during the late session. I cordially urge that the recommendation receive at your hands the consideration which its importance and timeliness merit.

Meanwhile there may be just ground for disquietude in view of the unrest and revival of the old sentiment of opposition and prejudice to alien people which pervades certain of the Chinese provinces. As in the case of the attacks upon our citizens in Szechuen and at Kutien in 1895, the United States minister has been instructed to secure the fullest measure of protection, both local and imperial, for any menaced American interests, and to demand, in case of lawless injury to person or property, instant reparation appropriate to the case. War ships have been stationed at Tientsin for more ready observation of the disorders which have invaded even the Chinese capital, so as to be in a position to act should need arise, while a guard of marines has been sent to Peking to afford the minister the same measure of authoritative protection as the representatives of other nations have been constrained to employ.

Following close upon the rendition of the award of my predecessor as arbitrator of the claim of the Italian subject Cerruti against the republic of Colombia, differences arose between the parties to the arbitration in regard to the scope and extension of the award, of which certain articles were contested by Colombia, while Italy claimed their literal fulfillment. The award having been made by the President of the United States, as an act of friendly consideration, and with the sole view to an impartial composition of the matter in dispute, I could not but feel deep concern at such a miscarriage, and, while unable to accept the Colombian theory that I, in my official capacity, possessed continuing functions as arbitrator, with power to interpret or revise the terms of the award, my best efforts were lent to bring the parties to a harmonious agreement as to the execution of its provisions.

A naval demonstration by Italy resulted in an engagement to pay the liabilities claimed upon their ascertainment; but this apparent disposition of the controversy was followed by a rupture of diplomatic intercourse between Colombia and Italy, which still continues, although fortunately without acute symptoms having supervened. Notwithstanding this, efforts are reported to be continuing for the ascertainment of Colombia's contingent liability on account of Cerruti's debts, under the fifth article of the award.

A claim of an American citizen against the Dominican Republic for a public bridge over the Ozama river, which has been in diplomatic controversy for several years, has been settled by

expert arbitration and an award in favor of the claimant amounting to about \$90,000. It, however, remains unpaid, despite urgent demands for its settlement according to the terms of the compact.

There is now every prospect that the participation of the United States in the Universal Exposition to be held in Paris in 1900 will be on a scale commensurate with the advanced position held by our products and industries in the world's chief marts.

The preliminary report of Mr. Moses P. Handy, who, under the act approved July 19, 1897, was appointed special commissioner, with a view to securing all attainable information necessary to a full and complete understanding by Congress in regard to the participation of this Government in the Paris Exposition, was laid before you by my message of Dec. 8, 1897, and showed the large opportunities opened to make known our national progress in arts, science, and manufactures, as well as the urgent need of immediate and adequate provision to enable due advantage thereof to be taken. Mr. Handy's death soon afterward rendered it necessary for another to take up and complete his unfinished work, and on Jan. 11 last Mr. Thomas W. Cridler, third Assistant Secretary of State, was designated to fulfill that task. His report was laid before you by my message of June 14, 1898, with the gratifying result of awakening renewed interest in the projected display. By a provision in the sundry civil appropriation act of July 1, 1898, a sum not to exceed \$650,000 was allotted for the organization of a commission to care for the proper preparation and installation of American exhibits, and for the display of suitable exhibits by the several executive departments, particularly by the Department of Agriculture, the Fish Commission, and the Smithsonian Institution, in representation of the Government of the United States.

Pursuant to that enactment, I appointed Mr. Ferdinand W. Peck, of Chicago, commissioner general, with an assistant commissioner general and a secretary. Mr. Peck at once proceeded to Paris, where his success in enlarging the scope and variety of the United States exhibit has been most gratifying. Notwithstanding the comparatively limited area of the exposition site—less than one half that of the World's Fair at Chicago—the space assigned to the United States has been increased from the absolute allotment of 157,403 square feet reported by Mr. Handy to some 202,000 square feet, with corresponding augmentation of the field for a truly characteristic representation of the various important branches of our country's development. Mr. Peck's report will be laid before you. In my judgment its recommendations will call for your early consideration, especially as regards an increase of the appropriation to at least \$1,000,000 in all, so that not only may the assigned space be fully taken up by the best possible exhibits in every class, but the preparation and installation be on so perfect a scale as to rank among the first in that unparalleled competition of artistic and inventive production, and thus counterbalance the disadvantage with which we start as compared with other countries whose appropriations are on a more generous scale and whose preparations are in a state of much greater forwardness than our own.

Where our artisans have the admitted capacity to excel, where our inventive genius has initiated many of the grandest discoveries of these later days of the century, and where the native resources of our land are as limitless as they are

valuable to supply the world's needs, it is our province, as it should be our earnest care, to lead in the march of human progress and not rest content with any secondary place. Moreover, if this be due to ourselves, it is no less due to the great French nation whose guests we become, and which has in so many ways testified its wish and hope that our participation shall best fit the place the two peoples have won in the field of universal development.

The commercial arrangement made with France on the 28th of May, 1898, under the provisions of section 3 of the tariff act of 1897, went into effect on the 1st day of June following. It has relieved a portion of our export trade from serious embarrassment. Further negotiations are now pending under section 4 of the same act, with a view to the increase of trade between the two countries to their mutual advantage. Negotiations with other governments, in part interrupted by the war with Spain, are in progress under both sections of the tariff act. I hope to be able to announce some of the results of these negotiations during the present session of Congress.

Negotiations to the same end with Germany have been set on foot. Meanwhile no effort has been relaxed to convince the Imperial Government of the thoroughness of our inspection of pork products for exportation, and it is trusted that the efficient administration of this measure by the Department of Agriculture will be recognized as a guarantee of the healthfulness of the food staples we send abroad to countries where their use is large and necessary.

I transmitted to the Senate, on the 10th of February last, information touching the prohibition against the importation of fresh fruits from this country, which had then recently been decreed by Germany on the ground of danger of disseminating the San José scale insect. This precautionary measure was justified by Germany on the score of the drastic steps taken in several States of the Union against the spread of the pest, the elaborate reports of the Department of Agriculture being put in evidence to show the danger to German fruit-growing interests should the scale obtain a lodgment in that country. Temporary relief was afforded in the case of large consignments of fruit then on the way by inspection and admission when found noninfected. Later the prohibition was extended to dried fruits of every kind, but was relaxed so as to apply only to unpeeled fruit and fruit waste. As was to be expected, the alarm reached to other countries, and Switzerland has adopted a similar inhibition. Efforts are in progress to induce the German and Swiss governments to relax the prohibition in favor of dried fruits shown to have been cured under circumstances rendering the existence of animal life impossible.

Our relations with Great Britain have continued on the most friendly footing. Assenting to our request, the protection of Americans and their interests in Spanish jurisdiction was assumed by the diplomatic and consular representatives of Great Britain, who fulfilled their delicate and arduous trust with tact and zeal, eliciting high commendation. I may be allowed to make fitting allusion to the instance of Mr. Ramsden, her Majesty's consul at Santiago de Cuba, whose untimely death after distinguished service and untiring effort during the siege of that city was sincerely lamented.

In the early part of April last, pursuant to a request made at the instance of the Secretary of State by the British ambassador at this capital,

the Canadian Government granted facilities for the passage of four United States revenue cutters from the Great Lakes to the Atlantic coast by way of the Canadian canals and the St. Lawrence river. The vessels had reached Lake Ontario, and were there awaiting the opening of navigation when war was declared between the United States and Spain. Her Majesty's Government thereupon, by a communication of the latter part of April, stated that the permission granted before the outbreak of hostilities would not be withdrawn provided the United States Government gave assurance that the vessels in question would proceed direct to a United States port without engaging in any hostile operation. This Government promptly agreed to the stipulated condition, it being understood that the vessels would not be prohibited from resisting any hostile attack.

It will give me especial satisfaction if I shall be authorized to communicate to you a favorable conclusion of the pending negotiations with Great Britain in respect to the Dominion of Canada. It is the earnest wish of this Government to remove all sources of discord and irritation in our relations with the neighboring Dominion. The trade between the two countries is constantly increasing, and it is important to both countries that all reasonable facilities should be granted for its development.

The Government of Greece strongly urges the onerousness of the duty here imposed upon the currants of that country, amounting to 100 per cent. or more of their market value. This fruit is stated to be exclusively a Greek product, not coming into competition with any domestic product. The question of reciprocal commercial relations with Greece, including the restoration of currants to the free list, is under consideration.

The long-standing claim of Bernard Campbell for damages for injuries sustained from a violent assault committed against him by military authorities in the island of Hayti has been settled by the agreement of that republic to pay him \$10,000 in American gold. Of this sum \$5,000 has already been paid. It is hoped that other pending claims of American citizens against that republic may be amicably adjusted.

Pending the consideration by the Senate of the treaty signed June 16, 1897, by the plenipotentiaries of the United States and of the republic of Hawaii, providing for the annexation of the islands, a joint resolution to accomplish the same purpose by accepting the offered cession and incorporating the ceded territory into the Union was adopted by the Congress and approved July 7, 1898. I thereupon directed the United States steamship Philadelphia to convey Rear-Admiral Miller to Honolulu, and intrusted to his hands this important legislative act, to be delivered to the President of the republic of Hawaii, with whom the admiral and the United States minister were authorized to make appropriate arrangements for transferring the sovereignty of the islands to the United States. This was simply but impressively accomplished on the 12th of August last by the delivery of a certified copy of the resolution to President Dole, who thereupon yielded up to the representative of the Government of the United States the sovereignty and public property of the Hawaiian Islands.

Pursuant to the terms of the joint resolution and in exercise of the authority thereby conferred upon me, I directed that the civil, judicial, and military powers theretofore exercised by the officers of the Government of the republic of Hawaii should continue to be exercised by those

officers until Congress shall provide a government for the incorporated territory, subject to my power to remove such officers and to fill vacancies. The President, officers, and troops of the republic thereupon took the oath of allegiance to the United States, thus providing for the uninterrupted continuance of all the administrative and municipal functions of the annexed territory until Congress shall otherwise enact.

Following the further provision of the joint resolution, I appointed the Hons. Shelby M. Culom, of Illinois, John T. Morgan, of Alabama, Robert R. Hitt, of Illinois, Sanford B. Dole, of Hawaii, and Walter F. Frear, of Hawaii, as commissioners to confer and recommend to Congress such legislation concerning the Hawaiian Islands as they should deem necessary or proper. The commissioners having fulfilled the mission confided to them, their report will be laid before you at an early day. It is believed that their recommendations will have the earnest consideration due to the magnitude of the responsibility resting upon you to give such shape to the relationship of those mid-Pacific lands to our home Union as will benefit both in the highest degree, realizing the aspirations of the community that has cast its lot with us and elected to share our political heritage, while at the same time justifying the foresight of those who for three quarters of a century have looked to the assimilation of Hawaii as a natural and inevitable consummation, in harmony with our needs and in fulfillment of our cherished traditions.

The questions heretofore pending between Hawaii and Japan, growing out of the alleged mistreatment of Japanese treaty immigrants, were, I am pleased to say, adjusted before the act of transfer by the payment of a reasonable indemnity to the Government of Japan.

Under the provisions of the joint resolution, the existing customs relations of the Hawaiian Islands with the United States and with other countries remain unchanged until legislation shall otherwise provide. The consuls of Hawaii, here and in foreign countries, continue to fulfill their commercial agencies, while the United States consulate at Honolulu is maintained for all appropriate services pertaining to trade and the revenue. It would be desirable that all foreign consuls in the Hawaiian Islands should receive new exequaturs from this Government.

The attention of Congress is called to the fact that our consular offices having ceased to exist in Hawaii, and being about to cease in other countries coming under the sovereignty of the United States, the provisions for the relief and transportation of destitute American seamen in these countries under our consular regulations will in consequence terminate. It is proper, therefore, that new legislation should be enacted upon this subject, in order to meet the changed conditions.

The interpretation of certain provisions of the extradition convention of Dec. 11, 1861, has been at various times the occasion of controversy with the Government of Mexico. An acute difference arose in the case of the Mexican demand for the delivery of Jesús Guerra, who, having led a marauding expedition near the border with the proclaimed purpose of initiating an insurrection against President Diaz, escaped into Texas. Extradition was refused on the ground that the alleged offense was political in its character, and therefore came within the treaty proviso of non-surrender. The Mexican contention was that the exception only related to purely political offenses, and that, as Guerra's acts were admixed with the

common crime of murder, arson, kidnaping, and robbery, the option of nondelivery became void, a position which this Government was unable to admit in view of the received international doctrine and practice in the matter. The Mexican Government, in view of this, gave notice Jan. 24, 1898, of the termination of the convention, to take effect twelve months from that date, at the same time inviting the conclusion of a new convention, toward which negotiations are on foot.

In this relation I may refer to the necessity of some amendment of our existing extradition statute. It is a common stipulation of such treaties that neither party shall be bound to give up its own citizens, with the added proviso in one of our treaties—that with Japan—that it may surrender if it see fit. It is held in this country by an almost uniform course of decisions that where a treaty negatives the obligation to surrender the President is not invested with legal authority to act. The conferment of such authority would be in the line of that sound morality which shrinks from affording secure asylum to the author of a heinous crime. Again, statutory provision might well be made for what is styled extradition by way of transit, whereby a fugitive surrendered by one foreign government to another may be conveyed across the territory of the United States to the jurisdiction of the demanding state. A recommendation in this behalf, made in the President's message of 1886, was not acted upon. The matter is presented for your consideration.

The problem of the Mexican free zone has been often discussed with regard to its inconvenience as a provocative of smuggling into the United States along an extensive and thinly guarded land border. The effort made by the joint resolution of March 1, 1895, to remedy the abuse charged by suspending the privilege of free transportation in bond across the territory of the United States to Mexico failed of good result, as is stated in Report No. 702 of the House of Representatives, submitted in the last session, March 11, 1898. As the question is one to be conveniently met by wise concurrent legislation of the two countries looking to the protection of the revenues by harmonious measures operating equally on either side of the boundary, rather than by conventional arrangements, I suggest that Congress consider the advisability of authorizing and inviting a conference of representatives of the Treasury Departments of the United States and Mexico to consider the subject in all its complex bearings and make report with pertinent recommendations to the respective governments for the information and consideration of their Congresses.

The Mexican Water Boundary Commission has adjusted all matters submitted to it to the satisfaction of both governments save in three important cases—that of the "Chamizal" at El Paso, Texas, where the two commissioners failed to agree, and wherein, for this case only, this Government has proposed to Mexico the addition of a third member; the proposed elimination of what are known as "Bancos," small isolated islands formed by the cutting off of bends in the Rio Grande, from the operation of the treaties of 1884 and 1889, recommended by the commissioners and approved by this Government, but still under consideration by Mexico; and the subject of the "equitable distribution of the waters of the Rio Grande," for which the commissioners recommended an international dam and reservoir, approved by Mexico, but still under consideration by this Government. Pending these ques-

tions it is necessary to extend the life of the commission, which expires Dec. 23 next.

The coronation of the young Queen of the Netherlands was made the occasion of fitting congratulations.

The claim of Victor H. McCord against Peru, which for a number of years has been pressed by this Government, and has on several occasions attracted the attention of the Congress, has been satisfactorily adjusted. A protocol was signed May 17, 1898, whereby, the fact of liability being admitted, the question of the amount to be awarded was submitted to the Chief Justice of Canada as sole arbitrator. His award sets the indemnity due the claimant at \$40,000.

The Government of Peru has given the prescribed notification of its intention to abrogate the treaty of friendship, commerce, and navigation concluded with this country Aug. 31, 1887. As that treaty contains many important provisions necessary to the maintenance of commerce and good relations, which could with difficulty be replaced by the negotiation of renewed provisions within the brief twelve months intervening before the treaty terminates, I have invited suggestions by Peru as to the particular provisions it is desired to annul, in the hope of reaching an arrangement whereby the remaining articles may be provisionally saved.

His Majesty the Czar having announced his purpose to raise the imperial Russian mission at this capital to the rank of an embassy, I responded, under the authority conferred by the act of March 3, 1893, by commissioning and accrediting the actual representative at St. Petersburg in the capacity of ambassador extraordinary and plenipotentiary. The Russian ambassador to this country has since presented his credentials.

The proposal of the Czar for a general reduction of the vast military establishments that weigh so heavily upon many peoples in time of peace was communicated to this Government with an earnest invitation to be represented in the conference which it is contemplated to assemble with a view to discussing the means of accomplishing so desirable a result. His Majesty was at once informed of the cordial sympathy of this Government with the principle involved in his exalted proposal and of the readiness of the United States to take part in the conference. The active military force of the United States, as measured by our population, territorial area, and taxable wealth, is, and under any conceivable prospective conditions must continue to be, in time of peace so conspicuously less than that of the armed powers to whom the Czar's appeal is especially addressed that the question can have for us no practical importance save as marking an auspicious step toward the betterment of the condition of the modern peoples and the cultivation of peace and good will among them; but in this view it behooves us as a nation to lend countenance and aid to the beneficent project.

The claims of owners of American sealing vessels for seizure by Russian cruisers in Bering Sea are being pressed to a settlement. The equities of the cases justify the expectation that a measure of reparation will eventually be accorded in harmony with precedent and in the light of the proved facts.

The recommendation made in my special message of April 27 last is renewed, that appropriation be made to reimburse the master and owners of the Russian bark *Hans* for wrongful arrest of the master and detention of the vessel in February, 1896, by officers of the United States district court for the southern district of Missis-

sippi. The papers accompanying my said message make out a most meritorious claim, and justify the urgency with which it has been presented by the Government of Russia.

Malietao Laupepa, King of Samoa, died on Aug. 22 last. According to Article I of the general act of Berlin, "his successor shall be duly elected according to the laws and customs of Samoa."

Arrangements having been agreed upon between the signatories of the general act for the return of Mataafa and the other exiled Samoan chiefs, they were brought from Jaluit by a German war vessel and landed at Apia on Sept. 18 last.

Whether the death of Malietao and the return of his old-time rival Mataafa will add to the undesirable complications which the execution of the tripartite general act has heretofore developed remains to be seen. The efforts of this Government will, as heretofore, be addressed toward a harmonious and exact fulfillment of the terms of the international engagement to which the United States became a party in 1889.

The Cheek claim against Siam, after some five years of controversy, has been adjusted by arbitration, under an agreement signed July 6, 1897, an award of 708,721 ticals (about \$187,987.78), with release of the Cheek estate from mortgage claims, having been rendered March 21, 1898, in favor of the claimant, by the arbitrator, Sir Nicholas John Hannen, British chief justice for China and Japan.

An envoy from Siam has been accredited to this Government and has presented his credentials.

Immediately upon the outbreak of the war with Spain the Swiss Government, fulfilling the high mission it has deservedly assumed as the patron of the International Red Cross, proposed to the United States and Spain that they should severally recognize and carry into execution, as a *modus vivendi*, during the continuance of hostilities, the additional articles proposed by the international conference of Geneva, Oct. 20, 1868, extending the effects of the existing Red Cross convention of 1864 to the conduct of naval war. Following the example set by France and Germany in 1870 in adopting such a *modus vivendi*, and in view of the accession of the United States to those additional articles in 1882, although the exchange of ratifications thereof still remained unaffected, the Swiss proposal was promptly and cordially accepted by us, and simultaneously by Spain.

This Government feels a keen satisfaction in having thus been enabled to testify its adherence to the broadest principles of humanity even amid the clash of war, and it is to be hoped that the extension of the Red Cross compact to hostilities by sea as well as on land may soon become an accomplished fact through the general promulgation of the additional naval Red Cross articles by the maritime powers now parties to the convention of 1864.

The important question of the claim of Switzerland to the perpetual cantonal allegiance of American citizens of Swiss origin has not made hopeful progress toward a solution, and controversies in this regard still continue.

The newly accredited envoy of the United States to the Ottoman Porte carries instructions looking to the disposal of matters in controversy with Turkey for a number of years. He is especially charged to press for a just settlement of our claims for indemnity by reason of the destruction of the property of American missionaries resident in that country during the Armenian troubles of 1895, as well as for the recognition of older claims of equal justness.

He is also instructed to seek an adjustment of the dispute growing out of the refusal of Turkey to recognize the acquired citizenship of Ottoman-born persons naturalized in the United States since 1869 without prior imperial consent; and in the same general relation he is directed to endeavor to bring about a solution of the question which has more or less acutely existed since 1869 concerning the jurisdictional rights of the United States in matters of criminal procedure and punishment under Article IV of the treaty of 1830. This latter difficulty grows out of a verbal difference, claimed by Turkey to be essential, between the original Turkish text and the promulgated translation.

After more than two years from the appointment of a consul of this country to Erzerum, he has received his exequatur.

The arbitral tribunal appointed under the treaty of Feb. 2, 1897, between Great Britain and Venezuela, to determine the boundary line between the latter and the colony of British Guiana, is to convene at Paris during the present month. It is a source of much gratification to this Government to see the friendly resort of arbitration applied to the settlement of this controversy, not alone because of the earnest part we have had in bringing about the result, but also because the two members named on behalf of Venezuela, Mr. Chief-Justice Fuller and Mr. Justice Brewer, chosen from our highest court, appropriately testify the continuing interest we feel in the definitive adjustment of the question according to the strictest rules of justice. The British members, Lord Herschell and Sir Richard Collins, are jurists of no less exalted repute, while the fifth member and president of the tribunal, M. F. de Martens, has earned a world-wide reputation as an authority upon international law.

The claim of Felipe Scandella against Venezuela for arbitrary expulsion and injury to his business has been adjusted by the revocation of the order of expulsion and by the payment of the sum of \$16,000.

I have the satisfaction of being able to state that the Bureau of the American Republics, created in 1890 as the organ for promoting commercial intercourse and fraternal relations among the countries of the Western Hemisphere, has become a more efficient instrument of the wise purposes of its founders, and is receiving the cordial support of the contributing members of the international union which are actually represented in its board of management. A commercial directory, in two volumes, containing a mass of statistical matter descriptive of the industrial and commercial interests of the various countries, has been printed in English, Spanish, Portuguese, and French, and a monthly bulletin published in these four languages and distributed in the Latin-American countries as well as in the United States, has proved to be a valuable medium for disseminating information and furthering the varied interests of the international union.

During the past year the important work of collecting information of practical benefit to American industries and trade through the agency of the diplomatic and consular officers has been steadily advanced, and in order to lay such data before the public with the least delay the practice was begun in January, 1898, of issuing the commercial reports from day to day as they are received by the Department of State. It is believed that for promptitude as well as fullness of information the service thus supplied to our merchants and manufacturers will be found

to show sensible improvement and to merit the liberal support of Congress.

The experiences of the last year bring forcibly home to us a sense of the burdens and the waste of war. We desire, in common with most civilized nations, to reduce to the lowest possible point the damage sustained in time of war by peaceable trade and commerce. It is true we may suffer in such cases less than other communities, but all nations are damaged more or less by the state of uneasiness and apprehension into which an outbreak of hostilities throws the entire commercial world. It should be our object, therefore, to minimize, so far as practicable, this inevitable loss and disturbance. This purpose can probably best be accomplished by an international agreement to regard all private property at sea as exempt from capture or destruction by the forces of belligerent powers. The United States Government has for many years advocated this humane and beneficent principle, and is now in position to recommend it to other powers without the imputation of selfish motives. I therefore suggest for your consideration that the Executive be authorized to correspond with the governments of the principal maritime powers with a view of incorporating into the permanent law of civilized nations the principle of the exemption of all private property at sea, not contraband of war, from capture or destruction by belligerent powers.

The Secretary of the Treasury reports that the receipts of the Government from all sources during the fiscal year ended June 30, 1898, including \$64,751,223 received from sale of Pacific railroads, amounted to \$405,321,335, and its expenditures to \$443,368,582. There was collected from customs \$149,575,062, and from internal revenue \$170,900,641. Our dutiable imports amounted to \$324,635,479, a decrease of \$58,156,690 over the preceding year, and importations free of duty amounted to \$291,414,175, a decrease from the preceding year of \$90,524,068. Internal-revenue receipts exceeded those of the preceding year by \$24,212,067.

The total tax collected on distilled spirits was \$92,546,999; on manufactured tobacco, \$36,230,522; and on fermented liquors, \$39,515,421. We exported merchandise during the year amounting to \$1,231,482,330, an increase of \$180,488,774 from the preceding year.

It is estimated upon the basis of present revenue laws that the receipts of the Government for the year ending June 30, 1899, will be \$577,874,647, and its expenditures \$689,874,647, resulting in a deficiency of \$112,000,000.

On the 1st of December, 1898, there was held in the Treasury gold coin amounting to \$138,441,547, gold bullion amounting to \$138,502,545, silver bullion amounting to \$93,359,250, and other forms of money amounting to \$451,963,981.

On the same date the amount of money of all kinds in circulation, or not included in Treasury holdings, was \$1,886,879,504, an increase for the year of \$165,794,966. Estimating our population at 75,194,000 at the time mentioned, the per capita circulation was \$25.09. On the same date there was in the Treasury gold bullion amounting to \$138,502,545.

The provisions made for strengthening the resources of the Treasury in connection with the war has given increased confidence in the purpose and power of the Government to maintain the present standard, and has established more firmly than ever the national credit at home and abroad. A marked evidence of this is found in the inflow of gold to the Treasury. Its net gold

holdings on Nov. 1, 1898, were \$239,885,162, as compared with \$153,573,147 on Nov. 1, 1897, and an increase of net cash of \$207,756,100 Nov. 1, 1897, to \$300,238,275 Nov. 1, 1898. The present ratio of net Treasury gold to outstanding Government liabilities, including United States notes, Treasury notes of 1890, silver certificates, currency certificates, standard silver dollars, and fractional silver coin, Nov. 1, 1898, was 25.35 per cent. as compared with 16.96 per cent. Nov. 1, 1897.

I renew so much of my recommendation of December, 1897, as follows:

"That when any of the United States notes are presented for redemption in gold and are redeemed in gold, such notes shall be kept and set apart and only paid out in exchange for gold. This is an obvious duty. If the holder of the United States note prefers the gold, and gets it from the Government, he should not receive back from the Government a United States note without paying gold in exchange for it. The reason for this is made all the more apparent when the Government issues an interest-bearing debt to provide gold for the redemption of United States notes—a noninterest-bearing debt. Surely it should not pay them out again except on demand and for gold. If they are put out in any other way, they may return again, to be followed by another bond issue to redeem them—another interest-bearing debt to redeem a noninterest-bearing debt."

This recommendation was made in the belief that such provisions of law would insure to a greater degree the safety of the present standard, and better protect our currency from the dangers to which it is subjected from a disturbance in the general business conditions of the country.

In my judgment the present condition of the Treasury amply justifies the immediate enactment of the legislation recommended one year ago, under which a portion of the gold holdings should be placed in a trust fund, from which greenbacks should be redeemed upon presentation, but when once redeemed should not thereafter be paid out except for gold.

It is not to be inferred that other legislation relating to our currency is not required; on the contrary, there is an obvious demand for it.

The importance of adequate provision which will insure to our future a money standard related as our money standard now is to that of our commercial rivals is generally recognized.

The companion proposition that our domestic paper currency shall be kept safe and yet be so related to the needs of our industries and internal commerce as to be adequate and responsive to such needs is a proposition scarcely less important. The subject, in all its parts, is commended to the wise consideration of the Congress.

The annexation of Hawaii and the changed relations of the United States to Cuba, Puerto Rico, and the Philippines resulting from the war, compel the prompt adoption of a maritime policy by the United States. There should be established regular and frequent steamship communication, encouraged by the United States, under the American flag, with the newly acquired islands. Spain furnished to its colonies, at an annual cost of about \$2,000,000, steamship lines communicating with a portion of the world's markets, as well as with trade centers of the home Government. The United States will not undertake to do less. It is our duty to furnish the people of Hawaii with facilities, under national control, for their export and import trade. It will be conceded that the present situation calls for legislation which shall be prompt, durable, and liberal.

The part which American merchant vessels and their seamen performed in the war with Spain demonstrates that this service, furnishing both pickets and the second line of defense, is a national necessity, and should be encouraged in every constitutional way.

Details and methods for the accomplishment of this purpose are discussed in the report of the Secretary of the Treasury, to which the attention of Congress is respectfully invited.

In my last annual message I recommended that Congress authorize the appointment of a commission for the purpose of making systematic investigations with reference to the cause and prevention of yellow fever. This matter has acquired an increased importance as a result of the military occupation of the island of Cuba and the commercial intercourse between this island and the United States which we have every reason to expect. The sanitary problems connected with our new relations with the island of Cuba and the acquisition of Puerto Rico are no less important than those relating to finance, commerce, and administration. It is my earnest desire that these problems may be considered by competent experts, and that everything may be done which the most recent advances in sanitary science can offer for the protection of the health of our soldiers in those islands and of our citizens who are exposed to the dangers of infection from the importation of yellow fever. I therefore renew my recommendation that the authority of Congress may be given and a suitable appropriation made to provide for a commission of experts to be appointed for the purpose indicated.

Under the act of Congress approved April 20, 1898, authorizing the President in his discretion, "upon a declaration of war by Congress, or a declaration by Congress that war exists," I directed the increase of the regular army to the maximum of 62,000, authorized in said act.

There are now in the regular army 57,862 officers and men. In said act it was provided that "at the end of any war in which the United States may become involved the army shall be reduced to a peace basis by the transfer in the same arm of the service or absorption by promotion or honorable discharge under such regulations as the Secretary of War may establish of supernumerary commissioned officers and the honorable discharge or transfer of supernumerary enlisted men; and nothing contained in this act shall be construed as authorizing the permanent increase of the commissioned or enlisted force of the regular army beyond that now provided by the law in force prior to the passage of this act, except as to the increase of 25 majors provided for in section 1 hereof."

The importance of legislation for the permanent increase of the army is therefore manifest, and the recommendation of the Secretary of War for that purpose has my unqualified approval. There can be no question that at this time, and probably for some time in the future, 100,000 men will be none too many to meet the necessities of the situation. At all events, whether that number shall be required permanently or not, the power should be given to the President to enlist that force if in his discretion it should be necessary; and the further discretion should be given him to recruit for the army within the above limit from the inhabitants of the islands with the government of which we are charged.

It is my purpose to muster out the entire volunteer army as soon as the Congress shall provide for the increase of the regular establishment. This will be only an act of justice, and will be

much appreciated by the brave men who left their homes and employments to help the country in its emergency.

In my last annual message I stated: "The Union Pacific Railway, main line, was sold under the decree of the United States court for the district of Nebraska on the 1st and 2d of November of this year. The amount due the Government consisted of the principal of the subsidy bonds, \$27,236,512, and the accrued interest thereon, \$31,211,711.75, making the total indebtedness \$58,448,223.75. The bid at the sale covered the first mortgage lien and the entire mortgage claim of the Government, principal and interest."

This left the Kansas Pacific case unconcluded. By a decree of the court in that case an upset price for the property was fixed at a sum which would yield to the Government only \$2,500,000 upon its lien. The sale at the instance of the Government was postponed first to Dec. 15, 1897, and later, upon the application of the United States, was postponed to the 16th day of February, 1898.

Having satisfied myself that the interests of the Government required that an effort should be made to obtain a larger sum, I directed the Secretary of the Treasury, under the act passed March 3, 1887, to pay out of the Treasury to the persons entitled to receive the same the amounts due upon all prior mortgages upon the eastern and middle divisions of said railroad out of any money in the Treasury not otherwise appropriated. Whereupon the Attorney-General prepared a petition to be presented to the court offering to redeem said prior liens in such manner as the court might direct, and praying that thereupon the United States might be held to be subrogated to all the rights of said prior lien holders, and that a receiver might be appointed to take possession of the mortgaged premises and maintain and operate the same until the court or Congress otherwise directed. Thereupon the Reorganization Committee agreed that if said petition was withdrawn and the sale allowed to proceed on the 16th of February, 1898, they would bid a sum at the sale which would realize to the Government the entire principal of its debt, \$6,303,000.

Believing that no better price could be obtained, and appreciating the difficulties under which the Government would labor if it should become the purchaser of the road at the sale, in the absence of any authority by Congress to take charge of and operate the road, I directed that upon the guarantee of a minimum bid which should give the Government the principal of its debt the sale should proceed. By this transaction the Government secured an advance of \$3,803,000 over and above the sum which the court had fixed as the upset price, and which the reorganization committee had declared was the maximum which they would pay for the property.

It is a gratifying fact that the result of these proceedings against the Union Pacific system and the Kansas Pacific line is that the Government has received on account of its subsidy claim the sum of \$64,751,223.75, an increase of \$18,997,163.76 over the sum which the Reorganization Committee originally agreed to bid for the joint property, the Government receiving its whole claim, principal and interest, on the Union Pacific, and the principal of its debt on the Kansas Pacific Railroad.

Steps had been taken to foreclose the Government's lien upon the Central Pacific Railroad Company, but before action was commenced Congress passed an act, approved July 7, 1898, creating a commission, consisting of the Secretary

of the Treasury, the Attorney-General, and the Secretary of the Interior, and their successors in office, with full power to settle the indebtedness to the Government growing out of the issue of bonds in aid of the construction of the Central Pacific and Western Pacific bond-aided railroads, subject to the approval of the President.

No report has yet been made to me by the commission thus created. Whatever action is had looking to a settlement of the indebtedness in accordance with the act referred to will be duly submitted to the Congress.

I deem it my duty to call to the attention of Congress the condition of the present building occupied by the Department of Justice. The business of that department has increased very greatly since it was established in its present quarters. The building now occupied by it is neither large enough nor of suitable arrangement for the proper accommodation of the business of the department. The supervising architect has pronounced it unsafe and unsuited for the use to which it is put. The Attorney-General in his report states that the library of the department is upon the fourth floor, and that all the space allotted to it is so crowded with books as to dangerously overload the structure. The first floor is occupied by the Court of Claims. The building is of an old and dilapidated appearance, unsuited to the dignity which should attach to this important department.

A proper regard for the safety, comfort, and convenience of the officers and employees would justify the expenditure of a liberal sum of money in the erection of a new building of commodious proportions and handsome appearance upon the very advantageous site already secured for that purpose, including the ground occupied by the present structure and adjoining vacant lot, comprising in all a frontage of 201 feet on Pennsylvania Avenue and a depth of 136 feet.

In this connection I may likewise refer to the inadequate accommodations provided for the Supreme Court in the Capitol, and suggest the wisdom of making provision for the erection of a separate building for the court and its officers and library upon available ground near the Capitol.

The postal service of the country advances with extraordinary growth. Within twenty years both the revenues and the expenditures of the Post-Office Department have multiplied threefold. In the last ten years they have nearly doubled. Our postal business grows much more rapidly than our population. It now involves an expenditure of \$100,000,000 a year, numbers 73,000 post offices, and enrolls 200,000 employees. This remarkable extension of a service which is an accurate index of the public conditions presents gratifying evidence of the advancement of education, of the increase of communication and business activity, and of the improvement of mail facilities leading to their constantly augmenting use.

The war with Spain laid new and exceptional labors on the Post-Office Department. The mustering of the military and naval forces of the United States required special mail arrangements for every camp and every campaign. The communication between home and camp was naturally eager and expectant. In some of the larger places of rendezvous as many as 50,000 letters a day required handling. This necessity was met by the prompt detail and dispatch of experienced men from the established force, and by directing all the instrumentalities of the railway-mail and post-office service, so far as necessary, to this

new need. Congress passed an act empowering the Postmaster-General to establish offices or branches at every military camp or station, and under this authority the postal machinery was speedily put into effective operation.

Under the same authority, when our forces moved upon Cuba, Puerto Rico, and the Philippines they were attended and followed by the postal service. Though the act of Congress authorized the appointment of postmasters where necessary, it was early determined that the public interests would best be subserved not by new designations, but by the detail of experienced men familiar with every branch of the service, and this policy was steadily followed. When the territory which was the theater of conflict came into our possession, it became necessary to re-establish mail facilities for the resident population as well as to provide them for our forces of occupation, and the former requirement was met through the extension and application of the latter obligation. I gave the requisite authority, and the same general principle was applied to this as to other branches of civil administration under military occupation. The details are more particularly given in the report of the Postmaster-General, and, while the work is only just begun, it is pleasing to be able to say that the service in the territory which has come under our control is already materially improved.

The following recommendations of the Secretary of the Navy relative to the increase of the navy have my earnest approval:

1. Three seagoing sheathed and coppered battle ships of about 13,500 tons trial displacement, carrying the heaviest armor and most powerful ordnance for vessels of their class, and to have the highest practicable speed and great radius of action. Estimated cost, exclusive of armor and armament, \$3,600,000 each.

2. Three sheathed and coppered armored cruisers of about 12,000 tons trial displacement, carrying the heaviest armor and most powerful ordnance for vessels of their class, and to have the highest practicable speed and great radius of action. Estimated cost, exclusive of armor and armament, \$4,000,000 each.

3. Three sheathed and coppered protected cruisers of about 6,000 tons trial displacement; to have the highest practicable speed and great radius of action, and to carry the most powerful ordnance suitable for vessels of their class. Estimated cost, exclusive of armor and armament, \$2,150,000 each.

4. Six sheathed and coppered cruisers of about 2,500 tons trial displacement; to have the highest speed compatible with good cruising qualities, great radius of action, and to carry the most powerful ordnance suited to vessels of their class. Estimated cost, exclusive of armament, \$1,141,800 each.

I join with the Secretary of the Navy in recommending that the grades of admiral and vice-admiral be temporarily revived, to be filled by officers who have specially distinguished themselves in the war with Spain.

I earnestly urge upon Congress the importance of early legislation providing for the taking of the twelfth census. This is necessary in view of the large amount of work which must be performed in the preparation of the schedules preparatory to the enumeration of the population.

There were on the pension rolls on June 30, 1898, 993,714 names, an increase of nearly 18,000 over the number on the rolls on the same day of the preceding year. The amount appropriated by the act of Dec. 22, 1896, for the payment of

pensions for the fiscal year of 1898 was \$140,000,000. Eight million seventy thousand eight hundred and seventy-two dollars and forty-six cents was appropriated by the act of March 31, 1898, to cover deficiencies in army pensions, and repayments in the sum of \$12,020.33, making a total of \$148,082,892.79 available for the payment of pensions during the fiscal year 1898. The amount disbursed from that sum was \$144,651,879.80, leaving a balance of \$3,431,012.99 unexpended on the 30th of June, 1898, which was covered into the Treasury. There were 389 names added to the rolls during the year by special acts passed at the second session of the Fifty-fifth Congress, making a total of 6,486 pensioners by congressional enactments since 1861.

The total receipts of the Patent Office during the past year were \$1,253,948.44. The expenditures were \$1,081,633.79, leaving a surplus of \$172,314.65.

The public lands disposed of by the Government during the year reached 8,453,896.92 acres, an increase of 614,780.26 acres over the previous year. The total receipts from public lands during the fiscal year amounted to \$2,277,995.18, an increase of \$190,063.90 over the preceding year. The lands embraced in the 11 forest reservations, which were suspended by the act of June 4, 1897, again became subject to the operations of the proclamations of Feb. 22, 1897, creating them, which added an estimated amount of 19,951,360 acres to the area embraced in the reserves previously created. In addition thereto two new reserves were created during the year—the Pine Mountain and Zaca Lake Reserve in California, embracing 1,644,594 acres, and the Prescott Reserve in Arizona, embracing 10,240 acres; while the Pecos River Reserve in New Mexico has been changed and enlarged to include 120,000 additional acres.

At the close of the year 30 forest reservations, not including those of the Afognac Forest and the Fish-culture Reserve in Alaska, had been created by Executive proclamations under section 24 of the act of March 3, 1891, embracing an estimated area of 40,719,474 acres.

The Department of the Interior has inaugurated a forest system, made possible by the act of July, 1898, for a graded force of officers in control of the reserves. This system has only been in full operation since August, but good results have already been secured in many sections. The reports received indicate that the system of patrol has not only prevented destructive fires from gaining headway, but has diminished the number of fires.

The special attention of the Congress is called to that part of the report of the Secretary of the Interior in relation to the Five Civilized Tribes. It is noteworthy that the general condition of the Indians shows marked progress. But one outbreak of a serious character occurred during the year, and that among the Chippewa Indians of Minnesota, which happily has been suppressed.

While it has not yet been practicable to enforce all the provisions of the act of June 28, 1898, "for the protection of the people of the Indian Territory, and for other purposes," it is having a salutary effect upon the nations composing the Five Tribes. The Dawes Commission reports that the most gratifying results and greater advance toward the attainment of the objects of the Government have been secured in the past year than in any previous year. I can not too strongly indorse the recommendation of the commission and of the Secretary of the Interior for the necessity of providing for the edu-

cation of the 30,000 white children resident in the Indian Territory.

The Department of Agriculture has been active in the past year. Explorers have been sent to many of the countries of the Eastern and Western Hemispheres for seeds and plants that may be useful to the United States, and with the further view of opening up markets for our surplus products. The forestry division of the department is giving special attention to the treeless regions of our country, and is introducing species specially adapted to semiarid regions. Forest fires, which seriously interfere with production, especially in irrigated regions, are being studied that losses from this cause may be avoided. The department is inquiring into the use and abuse of water in many States of the West, and collating information regarding the laws of the States, the decisions of the courts, and the customs of the people in this regard, so that uniformity may be secured. Experiment stations are becoming more effective every year. The annual appropriation of \$720,000 by Congress is supplemented by \$400,000 from the States. Nation-wide experiments have been conducted to ascertain the suitability as to soil and climate and States for growing sugar beets. The number of sugar factories has been doubled in the past two years, and the ability of the United States to produce its own sugar from this source has been clearly demonstrated.

The Weather Bureau forecast and observation stations have been extended around the Caribbean Sea, to give early warning of the approach of hurricanes from the south seas to our fleets and merchant marine.

In the year 1900 will occur the centennial anniversary of the founding of the city of Washington for the permanent capital of the Government of the United States by authority of an act of Congress approved July 16, 1790. In May, 1800, the archives and general offices of the Federal Government were removed to this place. On the 17th of November, 1800, the National Congress met here for the first time, and assumed exclusive control of the federal district and city. This interesting event assumes all the more significance when we recall the circumstances attending the choosing of the site, the naming of the capital in honor of the Father of his Country, and the interest taken by him in the adoption of plans for its future development on a magnificent scale.

These original plans have been wrought out with a constant progress and a signal success even beyond anything their framers could have foreseen. The people of the country are justly proud of the distinctive beauty and government of the capital, and of the rare instruments of science and education which here find their natural home.

A movement lately inaugurated by the citizens to have the anniversary celebrated with fitting ceremonies, including perhaps the establishment of a handsome permanent memorial to mark so historical an occasion, and to give it more than local recognition, has met with general favor on the part of the public.

I recommend to the Congress the granting of an appropriation for this purpose and the appointment of a committee from its respective bodies. It might also be advisable to authorize the President to appoint a committee from the country at large, which, acting with the congressional and District of Columbia committees, can complete the plans for an appropriate national celebration.

The alien-contract law is shown by experience

to need some amendment; a measure providing better protection for seamen is proposed; the rightful application of the eight-hour law for the benefit of labor and of the principle of arbitration are suggested for consideration; and I commend these subjects to the careful attention of the Congress.

The several departmental reports will be laid before you. They give in great detail the conduct of the affairs of the Government during the past year, and discuss many questions upon which the Congress may feel called upon to act.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, Dec. 5, 1898.

Acquisition of Territory.—The most important question brought up for action before Congress was the ratification of the treaty of peace with Spain, and the Senate approved of it by the requisite majority Feb. 6, 1899. The text of the treaty was given in the Annual for 1898.

Though the Senate discussion of the treaty is not given, various measures and resolutions touching on the policy that it embodies were introduced and debated. The bill appropriating \$20,000,000 to carry out the provisions of the treaty of Paris was introduced in the House of Representatives Feb. 17, reported back Feb. 20, and passed the same day. Mr. Dockery, of Missouri, proposed the following amendment to the act, which was a mere measure of appropriation:

"SEC. 2.—That by the ratification of the treaty of peace with Spain it is not intended to incorporate the inhabitants of the Philippine Islands into citizenship of the United States, and the United States hereby disclaims any disposition or intention to exercise permanent sovereignty, jurisdiction, or control over said islands, and asserts its determination, when a stable and independent government shall have been erected in said islands, entitled, in the judgment of the Government of the United States, to recognition as such, to transfer to said government, upon terms which shall be reasonable and just, all rights secured under the cession by Spain, and thereupon to leave the government and control of said islands to the people thereof."

But Mr. Cannon, of Illinois, objected, and the amendment was not considered. The discussion of the measure was brief, and it was mainly on the part of those who opposed the policy of the treaty, but recognized the necessity of voting the money to carry it out. Mr. Clayton, of Alabama, fairly represented the opinion of the opposition. He said:

"I did not intend to inflict upon the House any views on the Philippine question. I do not think that question now before the House, but I find that I differ from some of my associates on this side of the Chamber. In the judgment of many wise men there has been but one thing to do since the signing of the treaty of Paris that concluded hostilities between the United States and Spain, and that was the ratification of that treaty. I do not think it was either necessary or wise for the Peace Commission, at the President's suggestion or without it, to put into the treaty the obligation of the United States to pay this \$20,000,000.

"I do not think it was wise in the President and the commissioners to insist upon the cession of the Philippine Islands. It is to be regretted that we have the Philippine problem to deal with at all. Perhaps it would have been better for the people of the United States had Dewey sailed away from Manila after the destruction of the Spanish fleet. I have wished that he had done

so. And, Mr. Speaker, no man is more opposed than I am to a policy of imperialism, or to a scheme of colonization, or to the retention of the Philippine Islands.

"But the approval of the treaty has never been for this House to determine. The treaty has been negotiated and been ratified. The Executive possesses this law-making function. Treaties made by the United States are expressly declared to be the supreme law of the land. This power is given to the President, and it has but one limitation, and that is the treaty negotiated by him shall be ratified by two thirds of the Senate. The Government is constitutionally bound to pay this money. There is but one contingency, and that the improbable one that the Spanish Cortes will not ratify the treaty. In that event the money would not be paid.

"So that, Mr. Speaker, we find the supreme law of the land requires the payment of this money. The contract to pay it, the law to pay it, have been made pursuant to constitutional methods. And that law must be obeyed or defied. If the law is bad, let those who made it meet with the censure of the American people.

"It is to be regretted that the President has not had some definite policy toward the Philippines. What the President has not done in this regard furnishes much ground for just criticism. But he has correctly said in his speech at Boston that what shall be done hereafter with the Philippine Islands is now a legislative question, and not an executive one. I believe it ought to be made known that the United States does not intend permanently to hold those islands, and I believe it is the duty of Congress to tender assurance to the inhabitants of the Philippines that the United States will encourage such a government there as the people of those islands desire. I stand ready to aid in such declaration."

The rules were suspended and the measure passed by the requisite two-third vote—yeas, 219; nays, 33; not voting, 95; and answering "present," 4. It passed the Senate without a division, March 1, and was approved by the President.

Jan. 7 Senator Mason, of Illinois, introduced the following resolution:

"Whereas all just powers of government are derived from the consent of the governed, therefore be it

Resolved by the Senate of the United States, That the Government of the United States of America will not attempt to govern the people of any other country in the world without the consent of the people themselves, or subject them by force to our dominion against their will."

It was taken up for discussion, Jan. 10, and Mr. Mason spoke in its favor. He said, among other things:

"I say respectfully that there is no more right or necessity of our governing the Philippine Islands than there is of governing Venezuela, Brazil, Nicaragua, or any other South American state without the consent of its people. Certainly we have no more right to govern them than we have to govern Cuba. Our Government is committed to the withdrawal of our troops from Cuba as soon as peace is restored and a government established.

"Will some one tell me, Mr. President, will some of the gentlemen who are to follow upon the other side of the case, who are to belittle the dangers of war with an innocent people, tell me why it is that we should apply a different rule to the Philippines from that we do to Cuba? Will my distinguished friend to-morrow tell this chamber? I can not believe that he will take

the position; but if he does, will he give the rule in ethics and good morals that leads us to take a different stand toward the people of the Philippines, who are more enlightened and better educated, have more newspapers and better schools, from that we take toward Cuba?

"Tell me why we should adopt one plan for Cuba and another for the Philippines. Do you say, with the explosionists—I mean the expansionists—'We promised we would not steal Cuba, but we did not promise not to steal the Philippines'? Do you say, with Shylock, 'Is it so nominated in the bond'? You remember Jack in the Two Orphans was charged with stealing a coat. He said, 'You lie; it was a cloak.' Will you tell me, please, how grand larceny and criminal aggression in Cuba become high Christian civilization in the Philippines? Is there some place in the Pacific Ocean where we change the code of ethics and good morals as we change the calendar and the ship's clock in crossing?

"Mr. President, we can not teach them to govern themselves. There is only one road to self-government. That is through the gate of responsibility, along the rough and rugged road of experience. You can not teach liberty and self-government with a Mauser gun. Spain has tried it for centuries; at least, with guns similar if not of the same pattern. For centuries she has been for expansion, more land, more property, more poor people she could ride over with some cheap politician with a crown on his head. Are we going to keep the crown room there that Spain occupied? Is the throne room to be kept intact for Tammany Hall or the Republican party when we send our envoys there?

"Spain is an expansionist, and has been for centuries. And say, my friends, have you forgotten the first rule proved by all history, without exception, that every square inch of territory taken by force has to be held by force? Go to your children, who are in the first year of the high school, and they will tell you the rule, that in all history every square foot of ground taken by force from an alien nation has to be kept by force. There is Alsace-Lorraine, between Germany and France. A standing army is kept there on both sides, and there is a continuing threat of war. Are we to continue to imitate Spain? She has believed in the expansion of territory, expansion of commerce by force, without the consent of the governed, and her ships are lying at the bottom of the sea. Her men are rotting in the ocean and upon the land all over the world. Her flag has been dishonored, disgraced, defeated, and sent back to her peninsula, and the golden crown of imperialism that she has sought against the will of the people has turned to ashes in her palsied hands.

"But distinguished gentlemen who claim a monopoly of patriotism, who do not seem to observe the difference between expansion and explosion, say that we who believe in getting the consent of the governed before we govern them want to give back the Philippines to Spain. Every one who makes the statement knows that is not what we want. May I repeat the old story of Lincoln? Driving in his carriage one day, he alighted to turn a tumblebug to his legs. Replying to the Cabinet minister within the carriage, he said, 'I merely wanted to give him a show with all the other bugs of his class.' He did not want to annex the bug or to tell him how to run his business. He did not seek to tax him or to tell him that he did not know how to govern his bugship. He set him along the highroad, along the line of the survival of the fittest.

"Do you remember when Mexico was invaded by the French, and Uncle Sam said: 'Go; there is the Monroe doctrine; Mexico is covered by the shadow of its wing,' and the French soldiers left, and the brave little republic of Mexico is slowly but surely climbing the ladder to a better education, a better civilization. Ah, Mr. President, that is the expansion I believe in. That is the imperialism the fathers taught.

"Venezuela, within three years, was assaulted by England—sought to be despoiled of her port of entry. Grover Cleveland was President of the United States, and he said to the greatest naval power of the world, 'Stop!' You know the result. Venezuela, struggling along, improving in civil and religious liberty, is climbing higher and higher the scale of civilization. We did not want to annex her when we spoke for her. We did not seek to tax and govern her, but we set her on the highroad of imperialism within herself, and that is the imperialism the fathers taught, and that is the expansion I plead for."

Mr. Vest, of Missouri, introduced, Dec. 6, 1898, the following joint resolution:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That under the Constitution of the United States no power is given to the Federal Government to acquire territory to be held and governed permanently as colonies.

"The colonial system of European nations can not be established under our present Constitution, but all territory acquired by the Government, except such small amount as may be necessary for coaling stations, correction of boundaries, and similar governmental purposes, must be acquired and governed with the purpose of ultimately organizing such territory into States suitable for admission into the Union."

Mr. Vest based his argument in support of the resolution on certain Supreme Court decisions limiting apparently the authority of the Government. Mr. Platt, of Connecticut, said in opening the discussion against the resolution:

"I do not propose at this time to discuss the so-called policy of expansion nor the features of a government which we may authorize or establish in any territory which we may acquire. I will simply remark, in passing, that expansion has been the law of our national growth; more than that, it has been the great law of our racial development, and the United States has shown a capacity for government in all trying times and under all trying conditions, and has shown that it is equal to any circumstances which may arise.

"I propose to confine myself to the question of right denied in the resolution of the Senator from Missouri. I propose to maintain that the United States is a nation; that as a nation it possesses every sovereign power not reserved in its Constitution to the States or the people; that the right to acquire territory was not reserved, and is therefore an inherent sovereign right; that it is a right upon which there is no limitation, and with regard to which there is no qualification; that in certain instances the right may be inferred from specific clauses in the Constitution, but that it exists independent of these clauses; that in the right to acquire territory is found the right to govern it; and as the right to acquire is a sovereign and inherent right, the right to govern is a sovereign right not limited in the Constitution, and that these propositions are in accordance with the views of the framers of the Constitution, the decisions of the Supreme Court, and the legislation of Congress.

"Mr. President, this is a nation. It has been

called by various names. It has been called a confederated republic, a federal union, the union of States, a league of States, a rope of sand; but during all the time these names have been applied to it it has been a nation. It was so understood by the framers of the Constitution. It was so decided by the great judges of the Supreme Court in the early days of the Constitution.

"It is too late to deny it, and, Mr. President, it is also too late to admit it and not have faith in it. Intellectual assent to the doctrines of Christianity does not make a man a Christian. It is saving faith that makes the Christian. And a mere intellectual assent to the doctrine that we are a nation does not make the true patriot. It is high time that we come to believe without qualification, to believe in our hearts, in the exercise of patriotic faith, that the United States is a nation. When we come to believe that, Mr. President, many of the doubts and uncertainties which have troubled men will disappear.

"It is time to be heroic in our faith, and to assert all the power that belongs to the nation as a nation."

He went on to produce authorities to show the national power in this matter, and then asserted absolute right to govern:

"In the right to acquire territory is found the right to govern, and as the right to acquire is sovereign and unlimited, the right to govern is a sovereign right, and I maintain is not limited in the Constitution. If I am right in holding that the power to acquire is the sovereign power without limitation, I think it must be admitted that the right to govern is also sovereign and unlimited.

"But if it is sought to rest the right to govern upon that clause of the Constitution which gives Congress the power to dispose of or make 'all needful rules and regulations' for the government of the territory of the United States, I submit there is no limitation there. There is no qualification there. It is to make 'all needful rules' and regulations for the government of the 'territory' of the United States; not the 'Territories' of the United States. A great deal of confusion exists in the way in which this word is used, which I shall advert to later on.

"Now, if we may make 'all needful rules' and regulations, where is the limitation? Where is the qualification? Justice Taney says the limitation and the qualification are because there is no power to acquire the territory except under the clause for the admission of new States, and therefore it must be held that these rules and regulations must be made solely with reference to the admission of the territory as a new State. But if Justice Taney is wrong about that, if there is other power in the Constitution—and who now denies it?—if the power in the Constitution is full and ample, then his reasoning falls to the ground and there is absolutely no limit or qualification to be found in that clause of the Constitution.

"A Territory is not and can not be organized under the Constitution. It is organized under the power of Congress, which, as the cases have said over and over again, is absolute, full, and plenary. How far Congress in the exercise of that power may be bound by rights conferred by the Constitution upon the citizens I shall allude to farther on. But the Territories are not organized under the Constitution. The Territorial courts are not constitutional courts. If they were the 'inferior courts' mentioned in the Constitution, the judges thereof would have to be appointed with a life tenure. The judges are appointed for a limited term. Over and over

again the Supreme Court has held that those were not constitutional courts; that they were not organized under the Constitution; that they were not created under the Constitution; that they were created under and by the power of Congress."

In conclusion he said:

"I can not understand either the sentiment or the motive of those who are unwilling to concede that our Government is a nation, and who fear to see it clothed with every element of sovereignty which a nation should possess and does possess."

"Why should any man, why, especially, should any Senator, wish to detract from, to diminish or belittle the power of his Government? Why strive by subtle, metaphysical, and logic-chopping arguments to hamper its operations and circumscribe its province? Rather should we in our national love rejoice to see it invested with strength. Rather should we bid it godspeed in its mission to relieve the oppressed, to right every wrong, and to extend the institutions of free government. For this is the people's Government; the Government of a great people, a liberty-loving people, a people that can be trusted to do right, and to guarantee to all men who shall come under its beneficent sway and be subject to its jurisdiction the largest measure of liberty consistent with good order and their general well-being."

"Rather let us have faith in the Government, faith in its future. Stilled be the voice of timidity and distrust, stilled be the utterances of captious and carping criticism. Let us have faith that the powers of government will never be unrighteously exercised. Like Lincoln, when he met the contention that the Government had no power adequate to its self-preservation, let us turn from disputatious subtleties and 'have faith that right makes might, and in that faith dare to do our duty as we understand it.' In that faith the mountains of doubt will be removed and the way of duty become straight and plain."

"Little more than a century has passed since from the tower of Independence Hall in Philadelphia, when we severed our connection with Great Britain, the Liberty Bell rang out the message, 'Proclaim liberty throughout the land and to all the inhabitants thereof.' We were small and weak then. Timid doubters said there was a lion in the path, but the spirit of the Constitution was in that message. With that Constitution came nationality and sovereignty. Under that Constitution, in the name and by the power of the nation, liberty has been proclaimed to regions never dreamed of by the fathers. Is it for us now, when we have become great and strong, though timid doubters still say there are lions in the path, to declare that neither in the spirit of the Constitution nor by the exercise of national sovereignty can we proclaim liberty a rood or a foot beyond our present territorial limits? Oh, for the faith and the courage of the fathers!"

Mr. Teller, of Colorado, while maintaining the absolute authority of the nation over purchased or conquered territory, laid stress on the moral obligations that are implied in such power:

"Now, Mr. President, we are coming to deal with the greatest question, in my opinion, that the American people have dealt with since the contest of 1861. I am not one of those who would be understood as feeling satisfied that this question is not a troublesome one. I anticipate much difficulty and embarrassment to us in the handling of this question. From the very beginning I have felt that this was a question that would seriously embarrass the American people;

and yet I have not felt that distrust and that fear which seem to prevail in some sections of the country and among some of our countrymen. I have more confidence in the good sense of the American people than to believe we are about to adopt a policy in dealing with these countries that threatens the death of the republic or even great danger to it."

"In the first place, I believe to-day that we are hardly prepared to pass upon what ought to be the character of government that we establish over these countries. I do not think I am sufficiently advised as to what should be the details of the administration of public affairs as applied to them—the form of government best adapted to their condition. Mr. President, I believe in the principle which was enunciated in the fourth clause of the joint resolution approved April 20, 1898:

"That the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island, except for the pacification thereof, and asserts its determination, when that is accomplished, to leave the government and control of the island to its people."

"That is a declaration solemnly made by the people of the United States when it was apparent to us all that we were going to war. We said to the world: 'We are not going to war for conquest; we are going to war in the interest of freedom; we are going to war to relieve a people laboring under the plague of bad government; and when we have relieved them from this great burden and have secured peace in their borders, we are going to leave to them the management and control of their own affairs. But not until we have secured the pacification thereof are we to abandon them to their own efforts.'"

"That in terms only applied to Cuba, but in principle it applied to every possession of ours acquired during this war. If any Senator had suggested that in addition to Cuba there should be added the words 'or any other possession we may acquire during this war,' it would have met, as this joint resolution met, I believe, the unanimous support of this body and of the other, and also of the President of the United States, as is suggested to me by the Senator from Massachusetts. These words would have been added to the joint resolution with the approbation of all."

"But are we any less bound to-day because we did not mention this to treat these new possessions in the Asiatic seas under the same principles that we are to treat Cuba? If we are to take that position, and if the American people will say to these islands, 'We intend, if you are capable of self-government, to treat you as entitled to it,' we will not need 50,000 men for the Philippine Islands nor 50,000 men for the island of Cuba. That is the only way, in my judgment, Mr. President, that we can maintain peace and order in these new possessions; it is the only way we can escape the great embarrassment of maintaining a large army on what heretofore has been foreign soil, at great expense and at a great distance from our own land, absolutely in contravention to the great fundamental principles of a republic, that the fighting force of the nation should not be a standing army, but should be the militia of the country, the people themselves."

"I am not one of those who would turn these islands back to Spain; I am not one who would give them up to any other nation in the world; nor would I give them up to the people of those countries under present conditions. I believe we went into this war in the interest of human free-

dom, in the interest of good government; that we went into it as no other people in the history of the world ever went into a war. We have stood before the world presenting a spectacle and an example unheard of in history, ready to pour out our money and sacrifice life in the interest of those strangers.

"We can not stop. We commenced this great work of humanity, and we are bound to carry it on until we have accomplished the great object for which we began. We can not do it by turning over to those people the government of these various countries, in my judgment, in the present disorganized condition of affairs there; but we ought to keep in view all the time that some day these people are to be self-reliant and self-governing, as we are, or they are to become a part and parcel of this republic, entitled to all the rights and subject to all the duties of citizenship of States."

Mr. Caffery, of Louisiana, supported the resolution, and contended for the following propositions:

"First. That the Government of the United States being 'of the people, by the people, and for the people,' is inhibited from acquiring territory for the purpose of incorporating it and its people into the Union against their will or without their consent.

"Second. That if a territory is acquired by the United States and its condition, character, soil, climate, and population fit it for statehood, Congress can only govern it, under the limitations of the Constitution, with a view to its becoming a State as early as possible.

"Third. That if the people of a territory proposed to be annexed are incapable of self-government, we can not incorporate them into the Union nor hold them as dependencies to be governed despotically by Congress.

"Fourth. That even if capable of self-government and they give their consent, but are inhabitants of a distant country beyond the sea and of a dissimilar race, with different laws, religions, customs, manners, traditions, and habits, it is impolitic, unwise, and dangerous to incorporate them into the Union.

"Fifth. That wherever any territory is acquired by the United States in full sovereignty the citizens thereof become citizens of the United States, with the privilege of removal if they object to the sway of the United States, and that taxes, duties, and imposts shall be uniform throughout the United States, including all its Territories.

"Mr. President, in support of the proposition that we can not acquire territory for the purpose of incorporating it and its people into the Union against their will and consent, I can only argue upon general principles. We have announced to the world that this is a Government based upon the free consent of the American people. We have held up this example of a free government as one to be copied by all the nations of the earth. We have by that act estopped ourselves from setting up any kind of government anywhere, under any circumstances, other than a free government based upon the consent of the governed.

"There is no room in any line or word or implication from the Constitution to justify despotic government, but if the principle announced upon this floor is to obtain we can introduce into the very core of our institutions, in the very citadel of our liberty, the principle of unlimited despotic sway. If the principle is to obtain that we can annex foreign territory and govern that territory and its inhabitants indefinitely under the

sole jurisdiction and dominion of the Congress of the United States, we will have made of Congress the hugest despotism in the world.

"Mr. President, if I am correct in the proposition that the inhabitants of a territory acquired by the United States—that territory coming under the jurisdiction and full sovereignty of the United States—are citizens of the United States, then I contend that those citizens have a constitutional right to free government, and that means a government by their consent.

"Of course it follows that if, in the acquisition of territory or the project of the acquisition of territory, the inhabitants of that country do not consent, but are opposed and become hostile to the United States, there is no warrant under the Constitution, under the spirit of the Constitution, to bring those people under the jurisdiction of the flag as aliens and hostile to the institutions of our Government. We must have a free people, governed according to their own volition and choice, and not subjects ground beneath the heel of despotism, even if it be the despotism of such a free republic as the United States."

He argued against tropical dependencies as unfit for American settlement, and the natural home of people not qualified for American institutions, and consequently to be held in subjection, if held at all.

"I desire to draw attention to the difference between extending nationality and extending empire. You can extend your power, but if you want to extend your nationality, extend your institutions, extend your liberty, you must do it with people of your own kind. They are the ones to be governed by your law. Every other extension is a weakness. Every extension of the sort that is contemplated in this case is a crime. You can not obliterate the nationality of 10,000,000 Malays.

"There are 287,000,000 East Indians in the peninsula of India. Great Britain has held that country for two hundred and fifty years, and yet there are there but six hundred and odd thousand Englishmen all told. The same of Algeria; the same of the British West Indies; the same of Spanish America; the same of every country in the equatorial belt unsuceptible of settlement by white men. Wherever there has been a strong nationality in the tropics adapted to the soil and to the climate, no other nationality has ever been able to exterminate or govern them except by physical force. Our nationality can not extend to this Pacific group of islands. Our power can go there; our flag can float there; but the genius of American liberty will remain upon our shores. It can not be implanted there. The material is not there for it to flourish and grow upon.

"Is that the sort of 'expansion' we want? Is that the sort of empire we are derided as old fogies and little Americans for not desiring to establish? Mr. President, we are told that duty and destiny and some undefinable power are pushing us on to a splendid and magnificent future that the fathers never dreamed of. This evil thing we are called on to do can not be painted in such bright, dazzling colors as to deceive the American eye. It is nothing but a wanton stretch of power. It is lust for power and greed for land, veneered with the tawdriness of false humanity. You can not hide its hideousness with the clothing of high-sounding phrases. You can not prostitute the flag made to float over freemen by driving under its folds millions of slaves.

"I want no despotism, sir. I do not want our country to be poisoned at the core. I do not want our people to be accustomed to the exercise

of unlimited authority by Congress. That is a poison which has sapped the life of all republics, and it will sap the life of our republic. If you destroy the germ of our institution you destroy the government built on the germ.

"They tell us that the accident of war has made it our duty to embrace this dangerous opportunity and to take within our folds these people not fit to be incorporated in our midst. What duty? Do we owe any other duty to mankind than to alleviate his condition of hardship, to inspire him with a love of free institutions, and by our example to teach him to follow those institutions? When we get into war, and happen as a result of war to acquire a foothold in the enemy's territory, must we take it, whether or not it will be an element of danger and destruction in our midst? Is that the principle which is advocated to-day? It appears to me so, sir.

"Do we want this territory as a means of power? It is a source of weakness. Do we want it as an avenue of trade? Sir, the idea is absurd. We are capturing the markets of civilized man. Five sixths of the enormous exports of the United States go to Great Britain. The statistics show that not one tenth of the exports of the United States go to Asia, Africa, and South America combined. Nine tenths of our exports go to our neighbors in western Europe, and, sir, it is manifest that if we want markets for our surplus manufactures, our surplus cereals, all that we can not consume, we must send them to people who will consume them.

"What do the dwellers near the equator consume? A half-civilized man wants but little. Such people always export more than they import. Their wants are very few. It requires but little to clothe them. They feed at home, and the balance of trade is always in their favor. If anybody will take the list of our exports and imports, he will find that there is not a single one of these tropical countries which does not import more into the United States than it imports from the United States; and if you look to see where the bulk of our trade is, you will find that it is with people of our kind—enlightened people, consuming people, intelligent people, people who have wants to be supplied and who have something to exchange as against the products we exchange with them.

"Sir, those distant possessions would cost more in ten years for garrisons than they would yield profit to the United States in a century. They would be the graveyard of our youth; and what an avenue they would open for the exploiter, the promoter, and the soldiers of fortune! What an opening for piling up taxes to keep up garrisons, standing armies, and war vessels!"

Mr. Bacon, of Georgia, on Jan. 11, 1899, introduced in the Senate the following joint resolution:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, First. That the Government and people of the United States have not waged the recent war with Spain for conquest and for the acquisition of foreign territory, but solely for the purposes set forth in the resolution of Congress making the declaration of said war, the acquisition of such small tracts of land or harbors as may be necessary for governmental purposes being not deemed inconsistent with the same.

"Second. That in demanding and in receiving the cession of the Philippine Islands it is not the purpose of the Government of the United States to secure and maintain dominion over the same

as a part of the territory of the United States, or to incorporate the inhabitants thereof as citizens of the United States, or to hold said inhabitants as vassals or subjects of this Government.

"Third. That whereas at the time of the declaration of war by the United States against Spain, and prior thereto, the inhabitants of the Philippine Islands were actively engaged in a war with Spain to achieve their independence, and whereas said purpose and the military operations thereunder have not been abandoned, but are still being actively prosecuted thereunder, therefore, in recognition of and in obedience to the vital principle announced in the great declaration that governments derive 'their just powers from the consent of the governed,' the Government of the United States recognizes that the people of the Philippine Islands of a right ought to be free and independent; that, with this view and to give effect to the same, the Government of the United States has required the Government of Spain to relinquish its authority and government in the Philippine Islands, and to withdraw its land and naval forces from the Philippine Islands and from the waters thereof.

"Fourth. That the United States hereby disclaim any disposition or intention to exercise sovereignty, jurisdiction, or control over said islands, and assert their determination, when a stable and independent government shall have been duly erected therein entitled to recognition as such, to transfer to said government, upon terms which shall be reasonable and just, all rights secured under the cession by Spain, and to thereupon leave the government and control of the islands to their people."

Mr. White, of California, in discussing this resolution opposed the acquisition of tropical territory mainly on the ground of policy. He said:

"Whatever may be asserted in enthusiastic moments, I do not hesitate to say that it is not the mission or place of the American people to assume responsibility for such a population or to educate, otherwise than by example, and certainly not under the influence of the sword, the protesting occupants of tropical climes. I deny our duty to civilize such an aggregation. Clearly these alien races who, as far as history has furnished evidence, have not been found adapted for the highest civilization, ought not to be introduced here, as they are not competent to participate intelligently and profitably in the affairs of this Government. They should be allowed to pursue their own course, that we may not suffer by their contamination or be diverted from those pursuits which are more profitable to us and to mankind, not only in a financial sense, but morally as well.

"Mr. President, upon another occasion I had an opportunity to examine, and I attempted to explain, why it was and is that a remote nation or people of habits varying from ours in almost every direction can not be a valuable acquisition, and can not constitute a desirable addition to the American republic.

"We know that it is difficult to harmonize all of our interests at home. We know that from the Atlantic to the Pacific there are divergent and inconsistent demands requiring determination at the hands of Congress, and that it is nothing but the intelligent and universally prevailing patriotism of this land which enables us to come together and act as one for the common good. This indicates our capacity for self-rule, but suggests dangers arising from a want of homogeneity. These perils we should not increase.

"Assume that we import an alien and novel people numbering 10,000,000. Whether they are to be citizens or are not to be such—dropping that branch of the inquiry—they are at least brought within the United States. We are responsible for them to the world, and they are to some extent supposed to be burdens to us. What advantage can they be to this republic? Can they furnish us anything that will tend to make us more stable, more civilized, more enlightened? Clearly not. Do we offer them a government of their choice? Do they petition us asking that we receive them? Do they seek for themselves and their posterity the benefits of our civilization? No; they repudiate our attempt to govern them; they demand that they shall be permitted to follow their own way; they insist they should solve domestic and governmental issues for themselves, and that they ought to be allowed to at least experiment as to whether they are or are not competent to sustain a government adapted to their wants. They even intimate that we are to join in international land grabbing, and that the Spanish war was for conquest—not for humanity's sake.

"Mr. President, ought we to grant the Filipino an opportunity? If we say that he is not fitted to govern himself, by what process of reasoning can we reach the conclusion that therefore, and on that account, we ought to absorb him, especially when we announce in advance that we are not acquiring possessions for the purpose of dominion or statehood?

"When the Senator from Missouri [Mr. Vest] and other Senators ask whether these people are competent for admission into the family of States, a negative response is at once heard. It is intimated that perhaps they will be fitted 'some day.' It is averred that if we can hold them at all there is no limit capable of exact measurement, and that therefore we may retain them in our discretion—even forever. We may never determine, it is said, that they are of the elect—worthy of emancipation. Herein lurks the danger of any assumption of responsibility."

Mr. Carter, of Montana, argued against the good policy of discussing such resolutions or voting on them while the treaty of peace was still to be adopted:

"Mr. President, I take direct issue with the proposition that public interest, sound public policy, or any aspect of the existing situation requires or justifies a vote on any of these resolutions at this session of Congress. We have here presented a series of resolutions. That of the Senator from Missouri brings up a question of constitutional limitation upon the power of the Federal Government to do or not to do certain things set forth in the resolution. It is neither useful nor is it at present necessary for the Senate of the United States or the Congress of the country, if you please, to indulge in constitutional interpretations. The theory of the Senator from Missouri was evidently present in the mind of every Senator who prepared a resolution touching this general question. The theory of those who seek a vote on these resolutions is that before peace can be concluded with the Kingdom of Spain under the terms of the pending treaty the United States Senate must vote a want of confidence in the judgment, the discretion, the honor, and the integrity of the American people.

"It is apprehended by those who seek the present consideration of these resolutions that a Congress to assemble hereafter to deal with the territorial acquisitions that may fall to us under and by virtue of the treaty under consideration may

depart from the traditions of our country, the traditions of our race, the letter and spirit of our written Constitution, and launch the people of the United States upon a wild and shoreless sea of universal expansion, attended with tyranny and oppression wherever the flag may go. Mr. President, if such disposition should unhappily be developed in this country, written constitutions will not long restrain it, and resolutions of Congress or of either branch will be but as ropes of sand to stay the mighty tide.

"The treaty under consideration requires no interpretation of the purpose of the Government of the United States or the people with reference to the future of the Philippine Islands. Our forefathers were compelled to meet the question of the future disposition of populations at the time of the ratification of the treaty of 1803, whereby Louisiana was ceded to the United States. By an article in that treaty it was expressly provided that the people of the territory annexed should ultimately become entitled to and participate in all the privileges, benefits, and rights of American citizens.

"The same is true in reference to a clause in the treaty of cession by Mexico, adopted in 1848. By Article IX of that treaty it was provided that any citizen of the republic of Mexico residing within the territory ceded might within the period of one year elect to retain his citizenship in the republic of Mexico or become a citizen of the United States. After the lapse of the year, according to the terms of the treaty, the individuals residing within the ceded territory, now known as New Mexico, Arizona, and California, became entitled to full participation in and enjoyment of the rights and privileges of citizens of the United States. In the pending treaty no such provision occurs. Under its terms the mere sovereignty of Spain is ceded to the republic of the United States. There is no promise in the treaty to Spain, there is no obligation existing to any power whatever to dispose of the Philippine territory or the people residing therein save and except as the enlightened judgment and acute conscience of the people of the United States may in the future direct.

"Mr. President, the people of this country will be as good a class of people twelve months hence as they are to-day, and, according to our general theories of progression, they may be a better class of people. The Congress of the country will probably be as safe a body, all things considered, as the present Congress. By what right or authority, for what useful purpose, is this Congress now sitting, soon to expire, to undertake to tie the arms of the Government or to mortgage the privileges of the future, to undertake to limit the sphere of usefulness or the field of legitimate action for a Congress that is to follow? There is nothing in this treaty that requires it. By virtue of the ratification of the treaty the Government of the United States will be left without restraint of any kind, character, or description with reference to the Philippine Islands and the people who inhabit that archipelago. For what needful purpose then, Mr. President, does the present Congress insist upon the determination of a policy to be pursued in those islands?"

Mr. McNery, of Louisiana, presented Feb. 6, in the Senate, the following joint resolution:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That by the ratification of the treaty of peace with Spain it is not intended to incorporate the inhabitants of the Philippine

Islands into citizenship of the United States, nor is it intended to permanently annex said islands as an integral part of the territory of the United States; but it is the intention of the United States to establish on said islands a government suitable to the wants and conditions of the inhabitants of said islands to prepare them for local self-government, and in due time to make such disposition of said islands as will best promote the interests of the citizens of the United States and the inhabitants of said islands."

This resolution was fully discussed, as were the other declaratory resolutions, and by a special agreement with those who had united in favor of the ratification of the treaty of Paris it was brought to a vote Feb. 14. Mr. Bacon moved as an amendment the following clause, taken from his own resolution:

"*Resolved further*, That the United States hereby disclaim any disposition or intention to exercise permanent sovereignty, jurisdiction, or control over said islands, and assert their determination, when a stable and independent government shall have been erected therein, entitled in the judgment of the Government of the United States to recognition as such, to transfer to said government, upon terms which shall be reasonable and just, all rights secured under the cession by Spain, and to thereupon leave the government and control of the islands to their people."

The vote on the amendment was as follows:

YEAS—Bacon, Bate, Berry, Caffery, Chilton, Clay, Cockrell, Faulkner, Gorman, Gray, Hale, Harris, Heitfeld, Hoar, Jones of Arkansas, Jones of Nevada, Lindsay, McLaurin, Martin, Money, Murphy, Perkins, Pettigrew, Pettus, Quay, Rawlins, Smith, Tillman, Turner—29.

NAYS—Allison, Burrows, Carter, Chandler, Deboe, Fairbanks, Frye, Gear, Hanna, Hawley, Kyle, Lodge, McBride, McEnery, McMillan, Mantle, Morgan, Nelson, Penrose, Platt of Connecticut, Platt of New York, Pritchard, Ross, Shoup, Simon, Stewart, Teller, Warren, Wolcott—29.

NOT VOTING—Aldrich, Allen, Baker, Butler, Cannon, Clark, Cullom, Daniel, Davis, Elkins, Foraker, Gallinger, Hansbrough, Kenney, Mallory, Mason, Mills, Mitchell, Pasco, Proctor, Roach, Sewell, Spooner, Sullivan, Thurston, Turley, Turpie, Vest, Wellington, Wetmore, White, Wilson—32.

The Vice-President cast the deciding vote against the amendment, and it was lost. The McEnery resolution was then adopted by the following vote:

YEAS—Allison, Burrows, Chandler, Deboe, Fairbanks, Faulkner, Frye, Gear, Gray, Hale, Hanna, Harris, Kyle, Lodge, McEnery, McLaurin, McMillan, Mantle, Mason, Nelson, Perkins, Pettus, Platt of New York, Quay, Sullivan, Teller—26.

NAYS—Bacon, Bate, Caffery, Carter, Clay, Cockrell, Hawley, Hoar, Lindsay, McBride, Martin, Money, Morgan, Murphy, Pettigrew, Platt of Connecticut, Rawlins, Ross, Simon, Smith, Stewart, Warren—22.

NOT VOTING—Aldrich, Allen, Baker, Berry, Butler, Cannon, Chilton, Clark, Cullom, Daniel, Davis, Elkins, Foraker, Gallinger, Gorman, Hansbrough, Heitfeld, Jones of Arkansas, Jones of Nevada, Kenney, Mallory, Mills, Mitchell, Pasco, Penrose, Pritchard, Proctor, Roach, Sewell, Shoup, Spooner, Thurston, Tillman, Turley, Turner, Turpie, Vest, Wellington, Wetmore, White, Wilson, Wolcott—42.

Feb. 6, 1899, the House of Representatives suspended the rules and passed an act extending to the Hawaiian Islands the act approved Feb. 25,

1885, "to prohibit the importation and migration of foreigners and aliens under contract or agreement to perform labor in the United States, its Territories, and the District of Columbia, and the acts amendatory and supplemental thereto." In the Senate the measure was referred to the Committee on Territories, then to the Committee on Education and Labor, and finally to the Committee on Immigration. It was reported back with amendments, but never brought to a vote, though it came close to an issue on the last day of the session, and was long enough before the Senate for a strong statement to be made in explanation of it. Mr. Pettigrew, of South Dakota, said:

"Mr. President, we annexed the Hawaiian Islands on the 12th of last August, and made them a part of the United States. In the debate which then occurred the opponents of annexation stated that the climate was a tropical climate, and therefore that it would not be peopled by Americans or races of our blood; that the population would remain a tropical population; that the population would be such as to be incapable of maintaining self-government under our Constitution.

"I do not now wish to discuss the question, but I wish to put in the Record certain facts with regard to the immigration to Hawaii since annexation. On the 23d of December, 1898, there were 14,397 Japanese and Chinese contract laborers or slave laborers employed upon the Hawaiian sugar plantations, and there were 7,601 day laborers so employed.

"Since our flag went up in Hawaii, from Aug. 12, 1898, to the 6th day of January, 1899, there have been imported 7,030 contract laborers. Since the 6th of January and up to the 2d of February of this year there have been 2,782 contract laborers brought to the Hawaiian Islands, or a total to Feb. 2, 1899, of 10,412. This labor is slave labor. The laborers are under contract for a term of service. They are liable to be whipped and imprisoned. To-day Europeans, shipped there under contract since our flag went up, are working on the streets with all sorts of criminals because they refuse to subject themselves to the punishment of their taskmasters.

"I offered an amendment to the resolution annexing Hawaii embodying the repeal of the contract-labor law. That amendment was voted down in this Senate. We have waited eight months, and here is the first effort to repeal the contract-labor law. We have tried to pass this bill for days, but its consideration has been objected to by one of the commissioners who went to Hawaii to frame laws for the government of that unfortunate and unhappy country.

"We find, then, this situation: The contract laborer is filling the place of the day laborer; the sugar planters are bringing in their help at the rate of 3,000 a month; and now it is proposed that they shall be permitted to continue to import slaves until Congress meets again.

"No American free laborers have gone there since annexation, and those who had gone there before have been unable to find employment, while 10,400 Asiatics have been brought in, and yet the Administration, representing the Republican party, the party that owes its being to its protest against slavery, is responsible for this condition of affairs, and has refused to furnish legislation for the government of that Territory.

"They have refused to repeal the slave-labor laws of Hawaii. What would Abraham Lincoln, Lloyd Garrison, Wendell Phillips, or Charles Sumner say if they were asked to indorse this

policy? Yet this is the Republicanism of to-day. If living, would they be Republicans? And the commissioners sent there have blocked this legislation in the interest of the sugar planters, who want to secure slave labor to work their plantations, while they are selling their sugar to the American people and paying no duty upon it, resulting in a profit to them in remitted duties alone of \$10,000,000 a year."

Mr. Perkins, of California, said:

"Mr. President, early in January I introduced a bill similar to the one now pending. It was referred to the Committee on Immigration, who took it up and duly considered it. A short time subsequently a like bill was introduced into the House of Representatives, passed that body, came to the Senate, and was referred to the Committee on Education and Labor, of which I have the honor to be a member. It was duly considered by that committee, and referred to the Committee on Immigration. That committee took the House bill, amended it, and it has been upon our calendar for several weeks.

"I really feel greatly disappointed, and I believe it will be against the best interests of the people of this country if this bill should fail to become a law. There is no reason why the people of any Territory of the United States or any State in the Union should be exempt from the provisions of the law which provides that no contract labor can come into the United States. As a matter of fact, the people of Hawaii are to-day importing into those islands thousands and thousands of Japanese peons and other servile laborers, for whose labor they are contracting for one half—aye, for one third—of what the beet-sugar raisers of California and Nebraska and the cane-sugar raisers of Louisiana are paying for their labor."

The Nicaragua Canal.—This project came up for consideration early in the session, and a bill was discussed at some length, and passed the Senate Jan. 21, 1899, to amend the act incorporating the Maritime Canal Company of Nicaragua and to aid in the construction of the water way. The House of Representatives failed to act on it. The subject is an old one in Congress. The act of Feb. 20, 1889, simply incorporated a company for the purpose of building a ship canal from ocean to ocean through Nicaragua, and that company secured concessions and began the work. Jan. 10, 1891, Mr. Sherman, of Ohio, introduced a bill to amend this act, providing for an issue of bonds by the company to the amount of \$100,000,000, with a guarantee by the United States covering principal and interest. Dec. 23, 1891, Mr. Sherman introduced a bill to aid the Maritime Canal Company of Nicaragua, embodying the same scheme. Feb. 14, 1893, Mr. Peffer, of Kansas, introduced a bill to amend the act incorporating the company by striking out several sections and providing for the issue of \$100,000,000 in Treasury notes, full legal tender, to meet the expenses of the construction of the canal. Among the amendments to this bill proposed was one authorizing the President to make arrangements with Nicaragua and Costa Rica to secure the rights of the Maritime Canal Company and construct the water way, issuing \$100,000,000 in bonds to procure funds for the work. Aug. 15, 1893, Mr. Frye, of Maine, introduced a bill to amend the act of incorporation, Feb. 20, 1889, by authorizing the issue of \$100,000,000 in company bonds, with a guarantee by the United States. Jan. 22, 1894, an amendatory bill was introduced, in behalf of Mr. Morgan, of Alabama, containing the same

provision, and providing for the assignment of stock to the United States, Nicaragua, and Costa Rica. Dec. 30, 1895, Mr. Perkins, of California, introduced an amendatory bill, providing for the issuance of United States bonds to the amount of \$150,000,000 to cover the cost of construction, and safeguarding the Government interest in the enterprise by the ownership of nearly all the capital stock. June 1, 1896, March 16, 1897, and May 5, 1898, Mr. Morgan introduced bills on this subject embodying the same policy—the issuance of 700,000 shares of stock to the United States and a guarantee of bonds issued by the Maritime Canal Company of Nicaragua. May 25, 1898, Mr. Stewart, of Nevada, introduced a bill authorizing the President to take steps to secure the right of way, and purchase, at the cost of actual expenditures, the privileges of the Maritime Canal Company of Nicaragua, and so prepare the way for the United States to construct, own, and control the interoceanic canal and its terminal harbors. June 20, 1898, Mr. Morgan introduced another bill, in which it was provided that the Secretary of the Treasury be empowered to take 925,000 of the million shares of the canal company stock, and that in payment Treasury warrants to the amount of \$115,000,000 be issued to cover expenditure for canal construction. The measure, as reported in the Senate at the final session of Congress, reverted to the bond scheme, and Mr. Morgan, of Alabama, in the course of the discussion made the following explanation of the scheme for Government and corporate co-operation when the failure of the Maritime Canal Company to carry out the project seemed probable:

"It will be remembered that when the Senate of the United States first engaged in this work—and it was the first to engage in it—it was upon the motion of the Senator from Vermont, Mr. Edmunds, in executive session, who suggested that it was the duty of the Senate to inquire, through its Committee on Foreign Relations, into the condition and situation and prospects of the Nicaragua Canal.

"I need not go back to state to the Senate the reasons which actuated that venerable and splendid Senator in this movement, for they have been stated in letters here, in arguments, and in statements, explaining the whole situation, over Mr. Edmunds's signature and those of various other gentlemen, including myself, and are in the records of Congress. But a proposition was brought forward in that committee to unload the coastwise commerce and other commerce of the United States of what was then conceived to be a heavy burden, in consequence of the fact that the Maritime Canal Company of Nicaragua had to make a contract, as they insisted, not being able, as they asserted, to make a better one, to build the canal with the proceeds of the sale of \$100,000,000 of bonds backed by \$150,000,000 of their stock, which would amount of course to \$250,000,000 out of the active resources of the company, and would make a debt of that amount upon the corporation, which it was supposed and believed would necessitate the raising of the freight upon vessels passing through the canal to such a figure as would make it unjust to the producers and manufacturers and commercial men of the United States.

"The company protested that they could not raise the money on better conditions. They have said: 'We were required by the concession to put \$2,000,000 of money into this canal the first year after we began work, and we have done it. We have now spent more than \$2,000,000, and we are

in progress of spending more money.' They went on until they spent over \$4,000,000 in that way. They said: 'We can not get money on better terms than these.' The times were not quite so flush as they are even now, and it was difficult to raise money.

"Then the proposition was put to them in a secret session of the committee—the secrecy has all been removed—'On what terms will you consent that the Government of the United States shall raise this money for you—you say it will require only \$83,000,000?' They said: 'We are not able to state what terms, but we will say this to you, that when we are reimbursed for the money we have expended, when we have a fair price for our concessions, as was stipulated in the body of the concessions themselves' (6 per cent. is what they are entitled to out of the capital stock of the concern), 'when we are reimbursed for these things, we will be willing to let the United States Government take it.'

"The matter went on and was considered for some time, but it was not the proposition of the Maritime Canal Company at all. It was the proposition of the Committee on Foreign Relations. 'What would you say if the United States should guarantee your bonds for \$100,000,000 at 3 per cent.?' It was asserted then by Mr. Sherman, a great financier, that they could get the money on bonds at par. 'What would you say to a proposition of that kind?' They said: 'Of course we have told you we would accept it. Reimburse us for what we have had to expend, and you may take the stock in pledge or you can take the stock in purchase.' That committee preferred to take the stock in pledge under an actual mortgage to be recorded in Costa Rica, Nicaragua, and the United States, with powers of foreclosure on breach of condition, and so on.

"It was in that way that the proposition to get money upon the bonds came forward. They were not the kind of bonds that were objected to by the gentlemen who belong to the Silver party, of which I am a member, and I hope an honest one. They were not the kind of bonds that the bankers could take and operate upon and secure money on, and it was therefore supposed that they would be preferable. They were bonds of a kind that the people would like to invest in, and the sums were made small. The object was to raise the money by popular loan, as we did here in the beginning of the Spanish war. It was thought that the bonds would be valuable in that regard, and would induce the people to take a general interest in the canal.

"Now, the bond feature got into the legislation at that time, and it went on naturally and without objection, and nobody hitherto has ever put this question until the Senator from Texas raised it on the floor to-day. Why is it that we would prefer to indorse or guarantee bonds to the issue of straight bonds or an appropriation of money? The matter has gone on, and of course some of us, including myself, would prefer very much a direct appropriation of money to the issue of any bonds at all, for I have a sort of repulsion in my heart or judgment against the issue of bonds. Why should we not appropriate the money out of the Treasury instead of issuing bonds?

"The opportunity of making that appropriation without raising the cry of direct taxation on the people was never presented until during the last session of Congress. At the last session of Congress it turned out that by judicial decision and by legislative action \$68,000,000 in money for the Union Pacific Railroad Company

indebtedness found its way into the Treasury of the United States after a hard fight, as we all know, and a provision was put upon one of the appropriation acts which authorized the settlement of the Central Pacific Company indebtedness on the same basis precisely as that of the Union Pacific, which would yield \$59,000,000; so that the two together amounted to \$127,000,000, which I believed, in my own judgment, was fully sufficient to build the canal under anybody's estimate.

"Thereupon the committee incorporated into the bill the alternative provision that the President of the United States might resort to this fund, appropriated for the purpose, whenever in his judgment he thought it was better to do so than to guarantee bonds or to sell stock; and these three methods are now in the bill. We can guarantee the bonds of the company and issue them, sell them for not less than par, or we can sell \$22,500,000 of stock, of course at not less than par, or we can resort to this fund now in the Treasury or which may hereafter come into the Treasury, which is tantamount to \$127,000,000, for the purpose of raising the money to build the canal.

"I thought, and the committee thought, that leaving this sum optional, to be resorted to by the President in either of these three forms, would perhaps be the wisest legislation we could adopt, and the bill has exactly that shape. But my preference is still that indicated by the Senator from Texas—a direct appropriation of the money, to be taken out of that fund or any other fund."

Mr. Harris, of Kansas, said on the same theme: "My idea has always been that this was a work of too great magnitude to be intrusted to any private individuals, even if it was possible for them to complete it. It involves relations which are too vast in many respects, I believe, for the control of it by private individuals.

"I have been absolutely in favor of Government ownership of the canal. The committee, I think, shared in that idea, and wanted, if possible, to get at the most intimate connection on the part of the Government with this subject. The door of direct negotiation seemed to be closed, and there was but the one thing which is suggested by the letter of the former Secretary of State, and which has practically been suggested by the President in his message, it seems to me, that the only door open to us is through concessions still existing and belonging to a company which had received a direct charter from this Government, and in whose behalf it may be said these surveys have been authorized and made by the Government of the United States, or at least in connection with and under and by virtue of their concessions.

"There was no desire on the part of the committee to have the Maritime Canal Company, in their individual character in any way, shape, or form, connected with this enterprise, but the idea was to get rid of them, to treat them fairly and justly, to secure the advantages of their concessions as an open door through which we might enter upon this arena, a way by which we could get our feet upon the ground, and then that we should be enabled in the subsequent carrying on of the work to negotiate directly with these people.

"The bill as it now stands provides in section 3 for a commission which shall ascertain the value of whatever these people have. It uses language that I think is fair, that can not be objected to by any one. No matter what may have been the sins of omission or commission on

the part of the Maritime Canal Company, no matter how utterly dead and worthless the carcass may seem to be, we propose to get rid of it; and while the Senator from Indiana criticised very severely the Maritime Canal Company, certainly it seems to me he might admit that in the manner of their taking off they have at least acted in a becoming and proper manner.

"As I understand, the Maritime Canal Company are willing to submit to anything that we determine with regard to this matter. They are not interposing any objection. They are not interposing any plea for special consideration. They have not in any way broached or suggested anything to the committee on this subject other than what is contained in their letter to the Secretary of the Interior. The committee have thought that by the appointment of three commissioners who will determine these amounts on principles of justice and equity, so as to provide a fair compensation for the property, rights, privileges, and franchises now owned by the said company, etc., they could be treated fairly, and finally and permanently disposed of.

"They disappear from the scene, and the Government steps in in its capacity as the great stockholder. It is, of course, to be handled under the forms provided for in the concession. The Government of the United States becomes the great stockholder, Nicaragua and Costa Rica retaining the stock to which they are entitled under the concession. So far as the manner in which it shall be handled is concerned, I have heard no particular criticism. There shall be directors appointed, and they shall proceed practically, with the assistance of the War Department and the army engineers, with this great work.

"Under the amendments which have been offered by the Senator from Arkansas, which I favor very strongly myself, and which I understand are not objected to by the chairman of the committee, the whole bond question is eliminated, and it becomes a fair, plain cash transaction. There was no particular necessity for bonds in the matter. It makes no particular difference to anybody, except that there is the difficulty of transferring and selling the bonds imposed upon the directors who are to handle the matter. Consequently, I would much rather see the cash put into the treasury of the company or subject to their order as it may be required in the construction of the work, and the entire amount of stock transferred to the Treasury of the United States, with a lien which will absolutely secure the Government in a complete forfeiture in the course of time and reversal to them of all the rights and privileges and property which are nominally in the name of the company."

Army Reorganization.—There were several measures introduced for increasing the efficiency of the army of the United States, and finally one passed by the House of Representatives was set aside in the Senate, and a more moderate bill was introduced, Feb. 25, 1890, amended, and passed by that body, Feb. 27. The House reluctantly accepted the Senate measure, and passed it March 1, and it was approved March 2. The debate on the subject involved the old issue as to the good policy of standing armies.

In the Senate Mr. Cockrell, of Missouri, explained the bill as follows:

"Mr. President, I desire to make a few remarks in regard to this bill, the manner of its preparation, and its effect, and my indorsement of it. As every Senator knows, efforts have been made in Congress for the last twenty years—twenty-four years, I will say—for a reorganization of

the army. In almost every Congress some project has been brought up. In the beginning of this Congress multitudinous measures were presented for the increase of the regular standing army to 100,000 men, and it was claimed that the proposition had the indorsement of the executive branch of the Government. That kind of a measure was introduced. It passed the House. It authorized the President to organize an army of 100,000 men, a regular permanent standing army, and then gave him permission to reduce the number of the men in the company, leaving the officer organization intact.

"That matter was considered in the Committee on Military Affairs for a long time. A measure was reported by part of the committee, and certain propositions were made by the remaining half of the committee, the committee being equally divided. The matter was discussed here and statements were made upon the floor of the Senate in regard to the measure.

"Now, this measure which comes here has been examined very carefully, and I want to say I indorse it. I indorse it because I believe it is right and just and proper and necessary; and in addition to that it will settle for years to come the question of the reorganization of the regular standing army. When 1901 comes the army will revert to what it is provided for in the pending bill, without debate or contention, and it will remain at that figure; and I think that is amply sufficient.

"Now, what does this bill do? We all know that the organization of the infantry of the United States has been 10 companies to a regiment, and the inefficiency of that organization induced Congress to make a provision that two of those companies might be skeletonized and that the officers could be put upon detached duty. So our regiments practically consist of 8 companies, 2 battalions. In the beginning of the war with Spain we authorized an increase of our infantry regiments to 12 companies, just as the cavalry has been for years, 3 battalions, with 3 majors, 1 colonel, 1 lieutenant colonel, and a complement of officers. Every one recognizes that that is the only efficient infantry organization known to-day and practiced to-day anywhere in the world by intelligent and progressive armies.

"Then this bill simply authorizes the infantry arm of the service to be increased to 12 companies and hereafter to remain a 12-company organization, and that carries with it the men and the officers. In the cavalry there has been practically no increase by this bill over what it was prior to April, 1898.

"Now we come to the artillery. We have made an increase there of 14 batteries, 2 batteries to every one of the 7 regiments. You may say there is no necessity for it. Then there is no necessity for your fortifications. There is no necessity for your siege guns. There is no necessity for your disappearing artillery. There is no necessity for the hundred million dollars which you have expended in fortifications and in the armament of those fortifications all around our coasts.

"You have the fortifications, you have the improved machinery, you have the guns there. You must have intelligent men there who understand machinery and can use and protect it or it becomes a total loss. The artillery increase that we have given here, in my judgment, will not last until July 1, 1901. If the additional fortifications that are proposed all around our coasts, upon the Atlantic and the Pacific, are completed,

and the guns are manufactured and put into them, you will have to have an additional increase of artillery. You can not get around it. If you have forts, if you have guns, if you have machinery, you must have men to take care of them. That is all there is about it. That is the increase we have made.

"Then we have organized bands for each regiment. Heretofore a number of the members of the band have been detailed from the force. We have made the bands to consist of a given number, and they are to be enlisted for the bands and not to be taken out of the ranks, and they become soldiers in the band under military discipline. That necessarily increases the number of men nominally in the regiment.

"With the infantry we give an increase of 1 major, because we create one new battalion practically. That gives 3 majors—the regular organization, the permanent organization. Then you have to give to the regiments of cavalry, infantry, and artillery a quartermaster, an adjutant, and a commissary. They get the pay of a captain. That is not really an increase in fact, but an increase in appearance. And then we make the lieutenants the adjutants of the battalions. There is an apparent increase, but practically it is not, because the same officers will serve. In the artillery we have given these increases; and necessarily with the 14 batteries must go 14 officers. This increase, I think, is perfectly justifiable, is absolutely essential.

"When 1901 comes the army drops back to what? To the organization prescribed in this bill. That is the organization. It is described in the first part of the bill down to section 13. All the prior sections relate to the permanent organization of the army as it will exist on July 1, 1901, if no additional legislation is enacted, and that gives exactly the organization.

"That makes an increase of a little over 2,200 in the artillery and something like between 6,000 and 7,000 in the infantry by the filling up of the companies, a total increase up to about 10,000 or a little over, including these regimental bands and the cooks.

"What have we done in regard to the staff? We find that there was a law passed during the last session increasing the ordnance staff by a certain number of officers, and there are other increases made. We made an increase in the adjutant general's office and in the inspector general's office at the last session, but it was provided as a temporary force. After an examination of this matter and the number of officers and the duties that will be devolved upon them, we thought that the increase which had been made in the adjutant general's office and the inspector general's office ought to be retained in the permanent organization; and therefore there is an increase. That is the only increase in the staff. We have left the quartermasters and the commissaries and the other officers when peace comes just as they were before. I can see no harm to come from this. When 1901 comes without any further legislation the law brings the army back to exactly what is provided for here—about 38,000 men, artillery, infantry, cavalry, heavy artillery, batteries, and everything combined.

"As to the additional 35,000 men who have been provided for here the provision speaks for itself. We have authorized the permanent standing army to be maintained at 65,000 enlisted men until July 1, 1901. There will be 65,000 enlisted men in the regular army up to July 1, 1901. How are they to be organized? The organiza-

tion is already provided for; the whole organization is provided for. Some of the troops now in the service, some fifty odd thousand in number, will be discharged, because they volunteered for and during the war, and when peace is proclaimed they will be discharged. In fact, they are being discharged very rapidly now all over the country. There is a general order to muster out the volunteers who were in the regular army, volunteers there for and during the war, as rapidly as possible, and enlist men only for three years unless sooner discharged. This will enable the President to maintain the regular standing army, as it is called, at 65,000 up to July 1, 1901, if their services are so long needed. It authorizes him to organize a volunteer force of 35,000 and to officer it, and that force must go out of existence on July 1, 1901, or sooner if there is no necessity for their continuing in the service.

"This necessarily demands an increase of the staff department during this period, because the 35,000 volunteers are not from the States, are not officered by the States with quartermasters, commissaries, and surgeons. They come in as United States volunteers, and the United States has to furnish them with quartermasters and commissaries and surgeons and all the staff officers. We have here made provision for an increase in the different staff departments or corps; and I wish to say to the Senate that I reduced these down just as low as I thought the service would permit. Almost every reduction was made to the number I specified myself, and I am responsible for that part of it absolutely. I cut down the staff in the rank of the officers, and I cut them down in the number just as low as I thought the service would permit.

"You will observe that in the adjutant general's office there are 3 assistant adjutants general with the rank of lieutenant colonel and 6 assistant adjutants general with the rank of major. In the inspector's office they are lieutenant colonels and majors. In all the other departments they are only majors—nobody above a major. I thought the most efficient officers in the army would be the majors, and therefore we will have an excess of them—an honorable title, very good pay, and I think the most efficient ones will be among them.

"When it came to the organization of the general officers, I apprehend every Senator knows the pressure that has been brought upon the Senate for the purpose of increasing the number of general officers in the regular army. We have 3 major generals and 6 brigadier generals. This man wants an increase in the major generals, and the other one wants an increase of the brigadier generals. They want it in order that this man and that man and the other man may secure appointments in the regular army. I am totally opposed to an increase of the general officers of the regular army, and this bill makes no increase whatever in the brigadier generals or in the major generals of the army.

"Now what did we do for the volunteers? Were we to turn them over to the President without any officers—35,000 men without a brigade commander and without a division commander? We discussed the question, and we fixed upon 4,000 men as a unit for a brigadier general. We fixed upon 12,000 as a unit for a major general. Then we counted the brigadier generals in the regular army, and we added the volunteers to the regular army—about 100,000—and we made provision for one brigadier general of volunteers and regulars combined, united, to every 4,000 men.

That would give about 25 brigadier generals—6 in regular and 19 in volunteer army. Then it comes to the major generals. We assign 1 major general to every 12,000 enlisted men. There are 3 major generals in the regular army, and we increase the number so that there will be 1 to every 12,000 men, an increase of about 5. Now I submit that this is not a bad arrangement. It is not extravagant; it is not prodigal of the people's money. It is just as small a force as can efficiently and effectively manage the enlisted force provided by the bill.

"Mr. President, under all these circumstances, after this long discussion and this effort year after year and Congress after Congress to reorganize the army, if we have a bill here which promises to settle the question for Congresses to come, promises no heavy burden upon the people, gives no extra force that can be used for any improper purpose or elsewhere, I think it ought to be accepted. I have been on several commissions to reorganize the army; I have been connected with several efforts to reorganize the army. We have never been able to get anything that could meet with approval, and I believe honestly and conscientiously that this is the best measure that has been presented to the Congress of the United States for settling the regular army of the United States since I entered this Chamber, on the 4th day of March, 1875. I do not believe that you will ever get a better one. On the contrary, if this bill fails, my judgment is that what will come hereafter will be very different from this measure, not as good for the interests of the country as this will prove to be."

Mr. Gorman, of Maryland, opposed the measure, and succeeded in having it amended by a provision restoring the organization after 1901 in all grades except the artillery to the strength authorized by law prior to April 1, 1898.

"Mr. President, I have but little interest in the pending amendment, which has engaged the attention of the Senate. It is a mere matter of detail, fixing the age limit at which the officers may enter the service. But I do desire to say a few words upon the general frame of the bill.

"Mr. President, for the first time in the history of the country has a serious and urgent attempt been made by the executive branch of the Government to largely and permanently increase the standing army at the close of a war, and after peace has been practically declared.

"The conditions which confront us have been brought about in part by the action of Congress, which committed the Government to regulate the affairs of the people of Cuba and to use the great power of this Government to free that people. But the serious trouble—the one that gives us the greatest concern—has been forced upon us by the executive branch of the Government and the treaty-making power.

"The acquisition of the Philippine Islands has brought upon us obligations and conditions most extraordinary and alarming. I shall not discuss that question further than to say that with the Executive primarily must remain the responsibility for involving us in the serious complications with which we are now confronted. But for the questions involved in that acquisition, I do not believe there would be many advocates of a proposition to create a large standing army in this country.

"While disclaiming any part of the responsibility for these conditions, I agree that we shall make ample provision to uphold the honor and dignity of the country.

"Mr. President, I would not in any way hamper the administration in the adjustment of the affairs that unfortunately confront us. I desire to act toward the administration in the same manner that I did when the declaration of war against Spain was made. We then voted, with great unanimity, all the money and all the men the Executive desired or could use, the only condition being that when peace should be declared the officers and enlisted men of the army and navy should be reduced to a peace footing.

"Now that the war has closed, recognizing there is an insurrection in the Philippine Islands and that a small military force is necessary in Cuba and Puerto Rico, we say we are prepared to vote all the money and make provision for all the men that the President of the United States may require to pacify those islands. But in doing so there must be a limit as to the time for which the army shall be so increased; that it shall be temporary and only for the purpose indicated.

"The attempt to force through Congress, in the closing hours of a busy session, a measure for the partial reorganization of the standing army and a measure which provides for a large increase in that army, is unwise, for the reason that it can not be fairly or accurately framed, and there is no time to consider the details of such an important matter. Mr. President, the executive branch of the Government ought not to ask Congress to grant him greater power than was given him when the declaration of war with Spain was made, and Congress ought not to grant, no matter how insistent the Executive may be, a large increase of the regular army in time of peace.

"Mr. President, the pending bill providing for a large increase of the standing army and a temporary force amounting altogether to 100,000 men can not be defended. It is no answer to say that we have a revolution in the Philippine Islands; that there is some threatened disorder in Cuba, and unrest, if you please, in Puerto Rico. That does not justify the demand for a standing army when we say to you that we will give you all the men that the commander in chief of the army may think necessary to suppress the rebellion in the Philippine Islands or to maintain peace in Cuba and Puerto Rico, and that when those cases shall have been adjusted the army must resume its normal condition.

"That, Mr. President, is what we have always done in the case of war. We gave to the President of the United States, the commander in chief of the army, in the war with Spain, for temporary use in that war, and to last until the end of that war and until peace was declared, all the men and money he required. There was no permanent increase of the standing army, except possibly two regiments of artillery, which increase was said to be necessary on account of the additions to our fortifications.

"This, Mr. President, is all we did in the war of 1812-'14 and in the war with Mexico. Immediately upon the conclusion of peace following those wars the regular army was reduced to a peace footing. What possible reason can be given for departing from this well-settled policy of the Government at this time? There is none, absolutely none."

The measure as passed is as follows:

"Be it enacted, etc., That from and after the date of the approval of this act the army of the United States shall consist of 3 major generals, 6 brigadier generals, 10 regiments of cavalry, 7 regiments of artillery, 25 regiments of

infantry, an adjutant general's department, an inspector general's department, a judge-advocate general's department, a quartermaster's department, a subsistence department, a medical department, a pay department, a corps of engineers, an ordnance department, a signal corps, 30 chaplains, to be assigned to regiments or posts in the discretion of the Secretary of War, the officers of the Record and Pension Office, the officers and enlisted men of the army on the retired list, the professors' corps of cadets, an army-service detachment and band at the United States Military Academy, and such other officers and enlisted men as may hereinafter be provided for: *Provided*, That when a vacancy shall occur through death, retirement, or other separation from active service in the office of storekeeper in the quartermaster's department and ordnance department respectively, now provided for by law, said offices shall cease to exist.

"SEC. 2. That each regiment of cavalry shall consist of 1 colonel, 1 lieutenant colonel, 3 majors, 14 captains, 2 of whom shall be available for detail as adjutant and quartermaster; 16 first lieutenants, of whom 1 shall be available for detail as commissary and 3 for detail as squadron adjutants; 12 second lieutenants, 2 veterinarians, 1 sergeant major, 1 quartermaster sergeant, 1 commissary sergeant, who shall have the rank, pay, and allowances of a regimental quartermaster sergeant of cavalry; 3 squadron sergeant majors, who shall be senior to and have the pay and allowances of first sergeants of cavalry; 1 band, and 12 troops organized into 3 squadrons of 4 troops each: *Provided*, That nothing herein contained shall be construed as abolishing the office of chaplain in each regiment of colored cavalry. Each cavalry band shall consist of 1 chief musician, 1 chief trumpeter, 1 principal musician, 1 drum major, who shall have the rank, pay, and allowances of a first sergeant; 4 sergeants, 8 corporals, 1 cook, and 11 privates. Each troop of cavalry shall consist of 1 captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 1 quartermaster sergeant, who shall have the rank, pay, and allowances of a sergeant; 6 sergeants, 6 corporals, 2 cooks, 2 farriers and blacksmiths, 1 saddler, 1 wagoner, 2 trumpeters, and 43 privates. Of the veterinarians provided for in this act, 1 shall have the pay and allowances of a second lieutenant of cavalry, and 1 shall have the pay of \$75 per month and the allowances of a sergeant major: *Provided*, That the veterinarian appointed to the first grade shall not be so appointed until he shall have passed an examination, to be prescribed by the Secretary of War, as to his physical, moral, and professional qualifications: *Provided further*, That the veterinarians now in the service who do not pass such competitive examination shall be eligible to the positions of the second class under such rules as are now prescribed by the regulations. The regimental sergeant major and the regimental quartermaster sergeant provided for in this section shall have the pay and allowances of ordnance sergeants.

"SEC. 3. That each regiment of artillery shall consist of 1 colonel, 1 lieutenant colonel, 3 majors, 16 captains, 2 of whom shall be available for detail as adjutant and quartermaster; 16 first lieutenants, 14 second lieutenants, 1 sergeant major, 1 quartermaster sergeant, 1 band, and 14 batteries, of which 2 may be organized as field artillery.

"Each artillery band shall consist of 1 chief musician, 1 chief trumpeter, 1 principal musician, 1 drum major, who shall have the rank, pay,

and allowances of a first sergeant; 4 sergeants, 8 corporals, 1 cook, and 11 privates.

"Each battery of heavy artillery shall consist of 1 captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 1 quartermaster sergeant, who shall have the pay and allowances of a sergeant; 8 sergeants, 12 corporals, 2 musicians, 2 mechanics, who shall have the pay and allowances of sergeants of artillery; 2 cooks, and 52 privates.

"Each battery of field artillery shall consist of 1 captain, 2 first lieutenants, 1 second lieutenant, 1 first sergeant, 1 stable sergeant, 1 quartermaster sergeant, 6 sergeants, 12 corporals, 4 artificers, 2 musicians, 2 cooks, and 51 privates.

"In addition to the enlisted men specified there shall be 1 electrician sergeant to each post garrisoned by coast artillery having electrical appliances, who shall have the pay and allowances of an ordnance sergeant.

"SEC. 4. That each regiment of infantry shall consist of 1 colonel, 1 lieutenant colonel, 3 majors, 14 captains, 2 of whom shall be available for detail as adjutant and quartermaster; 16 first lieutenants, of whom 1 shall be available for detail as commissary and 3 for detail as battalion adjutants; 12 second lieutenants, 1 sergeant major, 1 quartermaster sergeant, 1 commissary sergeant, who shall have the rank, pay, and allowances of a regimental quartermaster sergeant of infantry; 3 battalion sergeant majors, who shall be senior to and have the pay and allowances of a first sergeant; 1 band, and 12 companies, organized into 3 battalions of 4 companies each: *Provided*, That nothing herein contained shall be construed as abolishing the office of chaplain in each regiment of colored infantry.

"Each infantry band shall consist of 1 chief musician, 1 principal musician, 1 drum major, who shall have the rank, pay, and allowances of a first sergeant; 4 sergeants, 8 corporals, 1 cook, and 12 privates.

"Each infantry company shall consist of 1 captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 1 quartermaster sergeant, who shall have the pay and allowances of a sergeant; 4 sergeants, 6 corporals, 2 cooks, 2 musicians, 1 artificer, and 48 privates: *Provided*, That the limits of age for original enlistments in the army shall be eighteen and thirty-five years.

"SEC. 5. That all vacancies created or caused by the provisions of this act above the grade of second lieutenant in the line of the army shall be filled by promotion according to seniority in the several arms, subject to the examinations now prescribed by law: *Provided*, That the additional second lieutenants now attached to each regiment of artillery shall be absorbed in the artillery or transferred to other arms where vacancies exist without loss of relative rank, leaving but 1 second lieutenant in each battery.

"Vacancies in the grade of second lieutenant shall be filled as now provided by law, except that no person shall be appointed from civil life before he shall have reached the age of twenty-one years nor after he shall have reached the age of twenty-seven years, nor until he shall have passed a satisfactory examination as to his moral, physical, and educational qualifications.

"SEC. 6. That the adjutant general's and inspector general's departments shall consist of the number of officers now in those departments, respectively: *Provided*, That vacancies in the grade of major occurring in either department shall hereafter be filled from captains in the line of the army: *And provided further*, That all such captains who have evinced marked aptitude in

the command of troops shall be reported by their regimental commanders to the War Department, and shall be entitled to compete for any such vacancy under such system of examination as the President shall prescribe.

"SEC. 7. That the judge-advocate general's department, quartermaster's department, subsistence department, medical department, pay department, Corps of Engineers, ordnance department, and Signal Corps shall consist of the officers and enlisted men now provided by law: *Provided*, That the battalion of engineers, and the officers serving therewith, shall constitute a part of the line of the army: *Provided further*, That in time of war retired officers of the army may, in the discretion of the President, be employed on active duty, other than in the command of troops, and when so employed they shall receive the full pay and allowances of their grades: *And provided also*, That no person in civil life shall hereafter be appointed a judge advocate, paymaster, or chaplain until he shall have passed satisfactorily such examination as to his moral, mental, and physical qualifications as may be prescribed by the President; and no such person shall be appointed who is more than forty-four years of age: *Provided further*, That in case of the appointment of an officer who has served in a similar capacity during the war with Spain and has demonstrated his moral, mental, and physical qualifications for the position, then such examination shall not be required.

"SEC. 8. That the chief of the Record and Pension Office of the War Department shall hereafter have the rank, pay, and allowances of a brigadier general, and there shall be an assistant chief of said office, who shall have the rank, pay, and allowances of a major and who may be appointed from civil life: *Provided*, That whenever a vacancy shall occur in the office of chief of the Record and Pension Office subsequent to the passage of this act said grade shall cease and determine, and thereafter the chief of said office shall have the rank, pay, and allowances of a colonel.

"SEC. 9. That the cooks authorized by this act shall have the pay and allowances of sergeants of infantry.

"SEC. 10. That the corps of cadets shall consist of 1 from each congressional district, 1 from each Territory, 1 from the District of Columbia, and 20 from the United States at large. They shall be appointed by the President, and shall, with the exception of the 20 cadets appointed at large, be actual residents of the congressional or Territorial districts, or of the District of Columbia, or of the States, respectively, from which they purport to be appointed.

"SEC. 11. That so much of the acts approved July 7, 1898, as authorizes the assignment of certain officers of the quartermaster's and subsistence departments with increased rank, and the continuance in service of certain volunteer officers of those departments for a period of one year after the close of the present war is repealed.

"SEC. 12. That to meet the present exigencies of the military service the President is hereby authorized to maintain the regular army at a strength of not exceeding 65,000 enlisted men, to be distributed among the several branches of the service, including the Signal Corps, according to the needs of each, and raise a force of not more than 35,000 volunteers to be recruited as he may determine from the country at large, or from the localities where their services are needed, without restriction as to citizenship or educational qualifications, and to organize the same into not more

than 27 regiments organized as are infantry regiments of war strength in the regular army, and 3 regiments to be composed of men of special qualifications in horsemanship and marksmanship, to be organized as cavalry for service mounted or dismounted: *Provided*, That each regiment shall have 1 surgeon, with the rank of major; 2 assistant surgeons, 1 of whom shall have the rank of captain and 1 that of first lieutenant; and 3 hospital stewards: *Provided further*, That such increased regular and volunteer force shall continue in service only during the necessity therefor, and not later than July 1, 1901.

"All enlistments for the volunteer force herein authorized shall be for the term of two years and four months, unless sooner discharged.

"SEC. 13. That the President shall have power to continue in service or to appoint, by and with the advice and consent of the Senate, brigadier generals of volunteers, who, including the brigadier generals of the regular army, shall not exceed 1 for every 4,000 enlisted men actually in service, and major generals of volunteers, who, including the major generals of the regular army, shall not exceed 1 for every 12,000 enlisted men: *Provided*, That regular army officers continued or appointed as general officers or as field or staff officers of volunteers, under the provisions of this act shall not vacate their regular army commissions: *And provided further*, That no general officers appointed under the provisions of this section shall be continued in service as such beyond July 1, 1901: *And provided also*, That any officer now in the army, who was graduated at the head of his class at the United States Military Academy and who is not now in the Corps of Engineers, may be appointed to the Corps of Engineers with the same grade and date of commission that he would have if he had been appointed to the Corps of Engineers on graduation; but said commission shall not entitle an officer to any back pay or allowance.

"SEC. 14. That the President is hereby authorized to continue in service, or to appoint by and with the advice and consent of the Senate, officers of the volunteer staff as follows:

"Three assistant adjutant generals with the rank of lieutenant colonel, and 6 assistant adjutant generals with the rank of major.

"Three inspectors general with the rank of lieutenant colonel, and 6 inspectors general with the rank of major.

"Five judge advocates with the rank of major.

"Thirty quartermasters with the rank of major, and 40 assistant quartermasters with the rank of captain.

"Six commissaries of subsistence with the rank of major, and 12 assistant commissaries of subsistence with the rank of captain.

"Thirty-four surgeons with the rank of major.

"Thirty additional paymasters with the rank of major.

"Four signal officers with the rank of major, 9 signal officers with the rank of captain, 9 signal officers with the rank of first lieutenant, and 9 signal officers with the rank of second lieutenant.

"*Provided*, That for each regular army officer of a staff corps or department who may be retained in or appointed to a higher volunteer rank in said staff corps or department than that actually held by him in the regular establishment, there may be appointed 1 officer of volunteers of the lowest grade mentioned in this section for such staff corps or department, but no appointment shall be made which will increase the total number of officers, regular and volunteer, serving in any grade, above the number authorized

by this act: *And provided also*, That all the volunteer staff officers herein authorized to be appointed or retained in the service shall be honorably discharged on July 1, 1901, or sooner if their services are no longer required: *And provided further*, That the officers herein authorized shall be appointed by the President, by and with the advice and consent of the Senate.

"SEC. 15. That the officers and enlisted men of the volunteer army shall be mustered out of the military service of the United States and discharged as provided in the act of April 22, 1898: *Provided*, That enlisted men of volunteers who desire to remain in the military service, either in the regular army or the temporary force authorized by this act, may, if found qualified therefor, be transferred to and enlisted in such batteries, troops, or companies as may be below the maximum authorized strength, and when so transferred and enlisted shall be credited on their new enlistment with the periods of service rendered by them, respectively, as volunteers: *And provided further*, That the President is authorized to enlist temporarily in service for absolutely necessary purposes in the Philippine Islands volunteers, officers and men, individually or by organization, now in those islands and about to be discharged, provided their retention shall not extend beyond the time necessary to replace them by troops authorized to be maintained under the provisions of this act and not beyond a period of six months: *Provided, also*, That each and every provision of this act shall continue in force until July 1, 1901; and on and after that date all the general, staff, and line officers appointed to the army under this act shall be discharged and the numbers restored in each grade to those existing at the passage of this act, and the enlisted force of the line of the army shall be reduced to the number as provided for by a law prior to April 1, 1898, exclusive of such additions as have been, or may be, made under this act to the artillery, and except the cadets provided for by this act, who may be appointed prior to July 1, 1901: *And provided further*, That no officer who has been, or may be, promoted under existing law, or under the rules of seniority, shall be disturbed in his rank.

"SEC. 16. That the Secretary of War be, and he is hereby, authorized to permit enlisted men of the United States army to make allotments of their pay, under such regulations as he may prescribe, for the support of their families or relatives, for their own savings, or for other purposes, during such time as they may be absent on distant duty, or under other circumstances warranting such action.

"SEC. 17. That no officer or private soldier shall be detailed to sell intoxicating drinks, as a bartender or otherwise, in any post exchange or canteen, nor shall any other person be required or allowed to sell such liquors in any encampment or fort or on any premises used for military purposes by the United States; and the Secretary of War is hereby directed to issue such general order as may be necessary to carry the provisions of this section into full force and effect.

"SEC. 18. That all laws or parts of laws which conflict with the provisions of this act are hereby repealed."

Navy Personnel.—A measure to reorganize and increase the efficiency of the personnel of the navy and the Marine Corps of the United States was passed, after some disagreement between the two house of Congress on points of detail. It embodied the deliberate opinion of naval authorities and the policy of the department, and the

President approved the act, March 3, 1899. The following is the text of the act:

"*Be it enacted, etc.*, That the officers constituting the Engineer Corps of the navy be and are hereby transferred to the line of the navy, and shall be commissioned accordingly.

"SEC. 2. That engineer officers holding the relative rank of captain, commander, and lieutenant commander shall take rank in the line of the navy according to the dates at which they attained such relative rank. Engineer officers graduated from the Naval Academy from 1868 to 1876, both years inclusive, shall take rank in the line next after officers in the line who graduated from the Naval Academy in the same year with them: *Provided*, That when the date of a line officer's commission as captain, commander, or lieutenant commander and the date when the engineer officer attained the same relative rank of captain, commander, or lieutenant commander are the same, the engineer officer shall take rank after such line officer.

"SEC. 3. That engineer officers who completed their Naval Academy course of four years from 1878 to 1880, both inclusive, shall take rank in the line as determined by the Academic Board under the department's instructions of Dec. 1, 1897; and engineer officers who completed their Naval Academy course of four years in 1881 and 1882 shall take rank in the line as determined by the merit roll of graduating classes at the conclusion of the six years' course, June, 1883 and 1884: *Provided*, That those engineer officers who were appointed from civil life, and whose status is not fixed by section 2 of this act, shall take rank with other line officers according to the dates of their first commissions, respectively: *And provided further*, That the engineer officers who completed their Naval Academy course of four years in 1881 and 1882 shall retain among themselves the same relative standing as shown on the Navy Register at the date of the passage of this act.

"SEC. 4. That engineer officers transferred to the line who are below the rank of commander, and extending down to, but not including, the first engineer who entered the Naval Academy as cadet midshipman, shall perform sea or shore duty, and such duty shall be such as is performed by engineers in the navy: *Provided*, That any officer described in this section may, upon his own application, made within six months after the passage of this act, be assigned to the general duties of the line, if he pass the examination now provided by law as preliminary to promotion to the grade he then holds, failure to pass not to displace such officer from the list of officers for sea or shore duty such as is performed by engineers in the navy.

"SEC. 5. That engineer officers transferred to the line to perform engineer duty only who rank as, or above, commander, or who subsequently attain such rank, shall perform shore duty only.

"SEC. 6. That all engineer officers not provided for in sections 4 and 5 transferred to the line shall perform the duties now performed by line officers of the same grade: *Provided*, That after a period of two years subsequent to the passage of this act they shall be required to pass the examinations now provided by law as preliminary to promotion to the grade they then hold, and subject to existing law governing examinations for promotion.

"SEC. 7. That the active list of the line of the navy, as constituted by section 1 of this act, shall be composed of 18 rear admirals, 70 captains, 112 commanders, 170 lieutenant commanders, 300 lieutenants, and not more than a total of 350

lieutenants (junior grade) and ensigns: *Provided*, That each rear admiral embraced in the 9 lower numbers of that grade shall receive the same pay and allowance as are now allowed a brigadier general in the army. Officers, after performing three years' service in the grade of ensign, shall, after passing the examinations now required by law, be eligible to promotion to the grade of lieutenant (junior grade): *Provided*, That when the office of chief of bureau is filled by an officer below the rank of rear admiral, said officer shall, while holding said office, have the rank of rear admiral and receive the same pay and allowance as are now allowed a brigadier general in the army: *And provided further*, That nothing contained in this section shall be construed to prevent the retirement of officers who now have the rank or relative rank of commodore with the rank and pay of that grade: *And provided further*, That all sections of the Revised Statutes which, in defining the rank of officers or positions in the navy, contain the words 'the relative rank of' are hereby amended so as to read 'the rank of,' but officers whose rank is so defined shall not be entitled, in virtue of their rank, to command in the line or in other staff corps. Neither shall this act be construed as changing the titles of officers in the staff corps of the navy. No appointments shall be made of civil engineers in the navy on the active list under section 1413 of the Revised Statutes in excess of the present number—21.

"SEC. 8. That officers of the line in the grades of captain, commander, and lieutenant commander may, by official application to the Secretary of the Navy, have their names placed on a list which shall be known as the list of 'applicants for voluntary retirement,' and when at the end of any fiscal year the average vacancies for the fiscal years subsequent to the passage of this act above the grade of commander have been less than 13, above the grade of lieutenant commander less than 20, above the grade of lieutenant less than 29, and above the grade of lieutenant (junior grade) less than 40, the President may, in the order of the rank of the applicants, place a sufficient number on the retired list with the rank and three fourths the sea pay of the next higher grade, as now existing, including the grade of commodore, to cause the aforesaid vacancies for the fiscal year then being considered.

"SEC. 9. That should it be found at the end of any fiscal year that the retirements pursuant to the provisions of law now in force, the voluntary retirements provided for in this act, and casualties are not sufficient to cause the average vacancies enumerated in section 8 of this act, the Secretary of the Navy shall, on or about the first day of June, convene a board of 5 rear admirals, and shall place at its disposal the service and medical records on file in the Navy Department of all the officers in the grades of captain, commander, lieutenant commander, and lieutenant. The board shall then select, as soon as practicable after the first day of July, a sufficient number of officers from the before-mentioned grades, as constituted on the thirtieth day of June of that year, to cause the average vacancies enumerated in section 8 of this act. Each member of said board shall swear, or affirm, that he will, without prejudice or partiality, and having in view solely the special fitness of officers and the efficiency of the naval service, perform the duties imposed upon him by this act. Its finding, which shall be in writing, signed by all the members, not less than four governing, shall be transmitted to the President, who shall thereupon, by order, make the transfers of such officers to the retired list as are

selected by the board: *Provided*, That not more than 5 captains, 4 commanders, 4 lieutenant commanders, and 2 lieutenants are so retired in any one year. The promotions to fill the vacancies thus created shall date from the thirtieth day of June of the current year: *And provided further*, That any officer retired under the provisions of this section shall be retired with the rank and three fourths the sea pay of the next higher grade, including the grade of commodore, which is retained on the retired list for this purpose.

"SEC. 10. That of the naval constructors 5 shall have the rank of captain, 5 of commander, and all others that of lieutenant commander or lieutenant. Assistant naval constructors shall have the rank of lieutenant or lieutenant (junior grade). Assistant naval constructors shall be promoted to the grade of naval constructor after not less than eight or more than fourteen years' service as assistant naval constructor: *Provided*, That the whole number of naval constructors and assistant naval constructors on the active list shall not exceed 40 in all.

"SEC. 11. That any officer of the navy, with a creditable record, who served during the civil war, shall, when retired, be retired with the rank and three fourths the sea pay of the next higher grade.

"SEC. 12. That boatswains, gunners, carpenters, and sailmakers shall after ten years from date of warrant be commissioned chief boatswains, chief gunners, chief carpenters, and chief sailmakers, to rank with but after ensign: *Provided*, That the chief boatswains, chief gunners, chief carpenters, and chief sailmakers shall on promotion have the same pay and allowances as are now allowed a second lieutenant in the Marine Corps: *Provided*, That the pay of boatswains, gunners, carpenters, and sailmakers shall be the same as that now allowed by law: *Provided further*, That nothing in this act shall give additional rights to quarters on board ship or to command, and that immediately after the passage of this act boatswains, gunners, carpenters, and sailmakers, who have served in the navy as such for fifteen years, shall be commissioned in accordance with the provisions of this section, and thereafter no warrant officer shall be promoted until he shall have passed an examination before a board of chief boatswains, chief gunners, chief carpenters, and chief sailmakers, in accordance with regulations prescribed by the Secretary of the Navy.

"SEC. 13. That, after June 30, 1899, commissioned officers of the line of the navy and of the Medical and Pay Corps shall receive the same pay and allowances, except forage, as are or may be provided by or in pursuance of law for the officers of corresponding rank in the army: *Provided*, That such officers when on shore shall receive the allowances, but 15 per cent. less pay than when on sea duty; but this provision shall not apply to warrant officers commissioned under section 12 of this act: *Provided further*, That when naval officers are detailed for shore duty beyond seas they shall receive the same pay and allowances as are or may be provided by or in pursuance of law for officers of the army detailed for duty in similar places: *Provided further*, That naval chaplains, who do not possess relative rank, shall have the rank of lieutenant in the navy; and that all officers, including warrant officers, who have been or may be appointed to the navy from civil life shall, on the date of appointment, be credited, for computing their pay, with five years' service. And all provisions of law authorizing the distribution among captors of the whole or any portion of the proceeds of ves-

els, or any property hereafter captured, condemned as prize, or providing for the payment of bounty for the sinking or destruction of vessels of the enemy hereafter occurring in time of war, are hereby repealed: *And provided further*, That no provision of this act shall operate to reduce the present pay of any commissioned officer now in the navy; and in any case in which the pay of such an officer would otherwise be reduced he shall continue to receive pay according to existing law: *And provided further*, That nothing in this act shall operate to increase or reduce the pay of any officer now on the retired list of the navy.

"SEC. 14. That upon the passage of this act the Secretary of the Navy shall appoint a board for the examination of men for the position of warrant machinists, 100 of whom are hereby authorized. The said examination shall be open, first, to all machinists by trade, of good record in the naval service, and if a sufficient number of machinists from the navy are not found duly qualified, then any machinist of good character, not above thirty years of age, in civil life shall be eligible for such examination and appointment to fill the remaining vacancies. All subsequent vacancies in the list of warrant machinists shall be filled by competitive examination before a board ordered by the Secretary of the Navy, and open to all machinists by trade who are in the navy, and machinists of good character, not above thirty years of age, in civil life authorized by the Secretary of the Navy to appear before said board, and, where candidates from civil life and from the naval service possess equal qualifications, the preference shall be given to those from the naval service.

"SEC. 15. That the pay of warrant machinists shall be the same as that of warrant officers, and they shall be retired under the provisions of existing law for warrant officers. Warrant machinists shall receive at first an acting appointment, which may be made permanent under regulations established by the Navy Department for other warrant officers. They shall take rank with other warrant officers according to date of appointment, and shall wear such uniform as may be prescribed by the Navy Department.

"SEC. 16. That hereafter the term of enlistment of all enlisted men of the navy shall be four years: *Provided*, That section 1573, Revised Statutes, be amended to read: 'If any enlisted man or apprentice, being honorably discharged, shall re-enlist for four years within four months thereafter, he shall, on presenting his honorable discharge or on accounting in a satisfactory manner for its loss, be entitled to pay during the said four months equal to that to which he would have been entitled if he had been employed in actual service; and that any man who has received an honorable discharge from his last term of enlistment, or who has received a recommendation for re-enlistment upon the expiration of his last term of service of not less than three years, who re-enlists for a term of four years within four months from the date of his discharge, shall receive an increase of \$1.36 per month to the pay prescribed for the rating in which he serves for each consecutive re-enlistment.'

"SEC. 17. That when an enlisted man or appointed petty officer has served as such thirty years in the United States navy, either as an enlisted man or petty officer, or both, he shall, by making application to the President, be placed on the retired list hereby created, with the rank held by him at the date of retirement; and he shall thereafter receive 75 per cent. of the pay and

allowances of the rank or rating upon which he was retired: *Provided*, That if said enlisted man or appointed petty officer had active service in the navy or in the army or Marine Corps, either as volunteer or regular, during the civil or Spanish-American War, such war service shall be computed as double time in computing the thirty years necessary to entitle him to be retired: *And provided further*, That applicants for retirement under this section shall, unless physically disqualified for service, be at least fifty years of age.

"SEC. 18. That from and after the date of the approval of this act the active list of the line officers of the United States Marine Corps shall consist of 1 brigadier general commandant, 5 colonels, 5 lieutenant colonels, 10 majors, 60 captains, 60 first lieutenants, and 60 second lieutenants: *Provided*, That vacancies in all grades in the line created by this section shall be filled as far as possible by promotion by seniority from the line officers on the active list of said corps: *And provided further*, That the commissions of officers now in the Marine Corps shall not be vacated by this act: *And provided further*, That vacancies in the grade of brigadier general shall be filled by selection from officers on the active list of the Marine Corps not below the grade of field officer.

"SEC. 19. That the vacancies existing in said corps after the promotions and appointments herein provided for shall be filled by the President from time to time, whenever the actual needs of the naval service require it, first, from the graduates of the Naval Academy in the manner now provided by law; or, second, from those who are serving or who have served as second lieutenants in the Marine Corps during the war with Spain; or, third, from meritorious noncommissioned officers of the Marine Corps; or, fourth, from civil life: *Provided*, That after said vacancies are once filled there shall be no further appointments from civil life.

"SEC. 20. That no person except such officers or former graduates of the Naval Academy as have served in the war with Spain, as hereinbefore provided for, shall be appointed a commissioned officer in the Marine Corps who is under twenty or over thirty years of age; and that no person shall be appointed a commissioned officer in said corps until he shall have passed such examination as may be prescribed by the President of the United States, except graduates of the Naval Academy, as above provided. That the officers of the Marine Corps above the grade of captain, except brigadier general, shall, before being promoted, be subject to such physical, mental, and moral examination as is now, or may hereafter be, prescribed by law for other officers of the Marine Corps.

"SEC. 21. That upon the passage of this act not more than 45 of the captains, 45 first lieutenants, and 45 second lieutenants herein provided for shall be appointed; 15 captains, 15 first lieutenants, and 15 second lieutenants to be appointed subsequently to Jan. 1, 1900.

"SEC. 22. That the staff of the Marine Corps shall consist of 1 adjutant and inspector, 1 quartermaster and 1 paymaster, each with the rank of colonel; 1 assistant adjutant and inspector, 2 assistant quartermasters and 1 assistant paymaster, each with the rank of major; and 3 assistant quartermasters with the rank of captain. That the vacancies created by this act in the departments of the adjutant and inspector and paymaster shall be filled first by promotion according to seniority of the officers in each of these

departments respectively, and then by selection from the line officers on the active list of the Marine Corps not below the grade of captain, and who shall have seen not less than ten years' service in the Marine Corps. That the vacancies created by this act in the quartermaster's department of said corps shall be filled, first, by promotion according to seniority of the officers in this department, and then by selection from the line officers on the active list of said corps not below the grade of first lieutenant: *Provided*, That all vacancies hereafter occurring in the staff of the Marine Corps shall be filled first by promotion according to seniority of the officers in their respective departments, and then by selection from officers of the line on the active list, as hereinbefore provided for.

"SEC. 23. That the enlisted force of the Marine Corps shall consist of 5 sergeant majors, 1 drum major, 20 quartermaster sergeants, 72 gunnery sergeants, with the rank and allowance of the first sergeant, and whose pay shall be \$35 per month; 60 first sergeants, 240 sergeants, 480 corporals, 80 drummers, 80 trumpeters, and 4,962 privates.

"SEC. 24. That the band of the United States Marine Corps shall consist of 1 leader, with the pay and allowances of a first lieutenant; 1 second leader, whose pay shall be \$75 per month, and who shall have the allowances of a sergeant major; 30 first-class musicians, whose pay shall be \$60 per month; and 30 second-class musicians, whose pay shall be \$50 per month and the allowances of a sergeant; such musicians of the band to have no increased pay for length of service.

"SEC. 25. That the oath of allegiance now provided for the officers and men of the army and Marine Corps shall be administered hereafter to the officers and men of the navy.

"SEC. 26. That all acts and parts of acts, so far as they conflict with the provisions of this act, are hereby repealed."

The Census.—An act to provide for taking the twelfth and subsequent censuses was passed by the Congress, and approved by the President, March 3, 1899. There was little difference in the bills prepared and passed by each house, except in matters of detail, and a conference report resulted in a compromise. The House of Representatives provided for an independent census bureau; the act makes it a bureau in the Interior Department. The House bill provided for the direct appointment of 300 enumerators; the act required the advice and consent of the Senate. The text of the measure is as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a census of the population, of deaths, and of the manufacturing, mechanical, and agricultural products of the United States shall be taken in the year 1900, and once every ten years thereafter.

"SEC. 2. That there shall be established in the Department of the Interior a Census Office, the chief officer of which shall be denominated the director of the census. It shall be his duty to superintend and direct the taking of the twelfth census of the United States, in accordance with the laws relating thereto, and to perform such other duties as may be required of him by law. The director of the census shall be appointed, as soon as practicable after the passage of this act, by the President, by and with the advice and consent of the Senate, and shall receive an annual salary of \$6,000; and there shall also be an assistant director of the census, to be appointed in like manner, who shall be an experienced practical

statistician, and shall receive an annual salary of \$4,000: *Provided*, That nothing herein contained shall be construed to establish a census bureau permanent beyond the twelfth census.

"SEC. 3. That during the absence of the director of the census, or when the office of director shall become vacant, the assistant director shall perform the duties of the director.

"SEC. 4. That there shall also be in the Census Office, to be appointed by the director thereof in the manner hereinafter specified, 5 chief statisticians, who shall be persons of known and tried experience in statistical work, at an annual salary of \$3,000 each; a chief clerk, 1 disbursing clerk, and 1 geographer, at an annual salary of \$2,500 each; 5 expert chiefs of division and 2 stenographers, at an annual salary of \$2,000 each; 10 clerks of class four, 15 clerks of class three, 20 clerks of class two, and such number of clerks of class one, and of clerks, copyists, computers, and skilled laborers, with salaries at the rate of not less than \$600 nor more than \$1,000 per annum, to be appointed from time to time, as may be found necessary for the proper and prompt performance of the duties herein required to be undertaken. The disbursing clerk herein provided for shall, before entering upon his duties, give bond to the Secretary of the Treasury in the sum of \$50,000, which bond shall be conditioned that the said officer shall render a true and faithful account to the proper accounting officers of the Treasury, quarterly, of all moneys and properties which shall be received by him by virtue of his office, with sureties to be approved by the solicitor of the Treasury. Such bond shall be filed in the office of the Secretary of the Treasury, to be by him put in suit upon any breach of the conditions thereof.

"The director of the census may also appoint 1 captain of the watch, at a salary of \$840 per annum; 2 messengers, and such number of watchmen, assistant messengers, and laborers, at salaries of \$600 each per annum; messenger boys, at salaries of \$400 each per annum; and charwomen, at salaries of \$240 each per annum, as may be necessary to carry out the provisions of this act.

"SEC. 5. That the chief clerk and the chief statisticians provided for in section 4 of this act, and all other employees authorized by this act below the assistant director of the census, shall be appointed by the director of the census, subject to such examination as said director may prescribe: *Provided*, That no examination shall be required in the case of enumerators or special agents, nor of employees below the grade of skilled laborers at \$600 per annum: *And provided further*, That employees in existing branches of the departmental service, whose services may be specially desired by the director of the census, not exceeding 6 in all, may be transferred without examination, and at the end of such service the employees so transferred shall be eligible to appointment in any department without additional examination, when vacancies exist.

"SEC. 6. That the collection of the information required by this act shall be made, under the direction of the director of the census, by supervisors, enumerators, and special agents, as hereinafter provided.

"SEC. 7. That the twelfth census shall be restricted to inquiries relating to the population, to mortality, to the products of agriculture and of manufacturing and mechanical establishments. The schedules relating to the population shall comprehend for each inhabitant the name, age, color, sex, conjugal condition, place of birth, and

place of birth of parents, whether alien or naturalized, number of years in the United States, occupation, months unemployed, literacy, school attendance, and ownership of farms and homes; and the director of the census may use his discretion as to the construction and form and number of inquiries necessary to secure information under the topics aforesaid. The mortality schedules shall comprehend for each decedent the name, sex, color, age, conjugal condition, place of birth, and birthplace of parents, occupation, cause and date of death, and, if born within the census year, the date of birth. The form and arrangement of the schedule and the specific questions necessary to secure the information required shall be in the discretion of the director. The schedules relating to agriculture shall comprehend the following topics: Name of occupant of each farm, color of occupant, tenure, acreage, value of farm and improvements, acreage of different products, quantity and value of products, and number and value of live stock. All questions as to quantity and value of crops shall relate to the year ending Dec. 31 next preceding the enumeration. The specific form and division of inquiries necessary to secure information under the foregoing topics shall be in the discretion of the director of the census. The schedules of inquiries relating to the products of manufacturing and mechanical establishments shall embrace the name and location of each establishment; character of organization, whether individual, co-operative, or other form; date of commencement of operations; character of business or kind of goods manufactured; amount of capital invested; number of proprietors, firm members, copartners, or officers, and the amount of their salaries; number of employees, and the amount of their wages; quantity and cost of materials used in manufactures; amount of miscellaneous expenses; quantity and value of products; time in operation during the census year; character and quantity of power used, and character and number of machines employed. The form and subdivision of inquiries necessary to secure the information under the foregoing topics relating to manufacturing and mechanical industries shall be in the discretion of the director of the census. The information collected shall be of and for the fiscal year of such corporations or establishments having its termination nearest to and preceding the 1st of June, 1900. Whenever he shall deem it expedient, the director of the census may withhold the schedules for said manufacturing and mechanical statistics from the enumerators of the several subdivisions in any or all cases, and may charge the collection of these statistics upon special agents, to be employed without respect to locality. In cities or States where an official registration of deaths is maintained the director of the census may, in his discretion, withhold the mortality schedule from the several enumerators within such cities or States, and may obtain the information required by this act through official records, paying therefor such sum of money as may be found necessary, not exceeding two cents for each death thus returned. The director of the census is also authorized and directed to make suitable provisions for the enumeration of the population and products of Alaska and the Hawaiian Islands, for which purpose he may employ supervisors and enumerators or special agents as he may deem necessary. The only volumes that shall be prepared and published in connection with the twelfth census, except the special reports hereinafter provided for, shall relate to population, mortality and vital statistics, the

products of agriculture, and of manufacturing and mechanical establishments, as above mentioned, and shall be designated as and constitute the census reports, which said reports shall be published not later than the first day of July, 1902. The report upon population shall include a series of separate tables for each State, giving by counties the number of male persons below and above the age of twenty-one years, their color, whether native or foreign born, whether naturalized or not, and their literacy or illiteracy. All terms expressing weight, measure, distance, or value shall be expressed in the terms of the English language as spoken in this country.

"SEC. 8. That after the completion and return of the enumeration and of the work upon the schedules relating to the products of agriculture and to manufacturing and mechanical establishments provided for in section 7 of this act, the director of the census is hereby authorized to collect statistics relating to special classes, including the insane, feeble-minded, deaf, dumb, and blind; to crime, pauperism, and benevolence, including prisoners, paupers, juvenile delinquents, and inmates of benevolent and reformatory institutions; to deaths and births in registration areas; to social statistics of cities; to public indebtedness, valuation, taxation, and expenditures; to religious bodies; to electric light and power, telephone and telegraph business; to transportation by water, express business, and street railways; to mines, mining and minerals, and the production and value thereof, including gold, in divisions of placer and vein, and silver mines, and the number of men employed, the average daily wage, average working time, and aggregate earnings in the various branches and aforesaid divisions of the mining industry: *Provided*, That the reports herein authorized relating to mines, mining, and minerals shall be published on or before July 1, 1903 A.D. And the director of the census shall prepare schedules containing such interrogatories as shall in his judgment be best adapted to elicit the information required under these subjects, with such specifications, divisions, and particulars under each head as he shall deem necessary to that end. For the purpose of securing the statistics required by this section, the director of the census may appoint special agents when necessary, and such special agents shall receive compensation as hereinafter provided. The statistics of deaths and births provided for in this section shall be obtained from, and restricted to, the registration records of such States and municipalities as possess records affording satisfactory data in necessary detail, in the discretion of the director, the compensation for the transcription of which shall not exceed two cents for each birth or death reported. The statistics of special classes, and of crime, pauperism, and benevolence specified in this section shall be restricted to institutions containing such classes: *Provided*, That at the time of the census enumeration the data relating to these classes may, in the discretion of the director of the census, be collected by the enumerators of such institutions, who shall receive compensation therefor at rates not exceeding, in per capita districts, five cents for each name enumerated and returned. The collection of statistics authorized by this section shall be made at such time or times and in such manner as will not interfere with nor delay the rapid completion of the census reports provided for in section 7 of this act, and all reports prepared under the provisions of this section shall be designated as 'special reports of the Census Office.'

"SEC. 9. That the director of the census shall, at least six months prior to the date fixed for commencing the enumeration at the twelfth and each succeeding decennial census, designate the number, whether one or more, of supervisors of census to be appointed within each State and Territory, the District of Columbia, Alaska, and the Hawaiian Islands, who shall be appointed by the President, by and with the advice and consent of the Senate: *Provided*, That the whole number of such supervisors shall not exceed 300: *And provided further*, That wherever practicable and desirable the boundaries of the supervisors' districts shall conform to the boundaries of congressional districts.

"SEC. 10. That each supervisor of census shall be charged with the performance, within his own district, of the following duties: To consult with the director of the census in regard to the division of his district into subdivisions most convenient for the purpose of the enumeration, which subdivisions shall be declared and the boundaries thereof fixed by the director of the census; to designate to the director suitable persons, and, with the consent of said director, to employ such persons as enumerators within his district, one or more for each subdivision and resident therein; but in case it shall occur in any enumeration district that no person qualified to perform and willing to undertake the duties of enumerator resides in that subdivision the supervisor may employ any fit person to be the enumerator of that subdivision; to communicate to enumerators the necessary instructions and directions relating to their duties; to examine and scrutinize the returns of the enumerators, and in event of discrepancies or deficiencies appearing in the returns for his district, to use all diligence in causing the same to be corrected and supplied; to forward to the director of the census the completed returns for his district in such time and manner as shall be prescribed by the said director, and to make up and forward to the director the accounts required for ascertaining the amount of compensation due to each enumerator in his district, which accounts shall be duly sworn to by the enumerator, and the same shall be certified as true and correct, if so found, by the supervisor, and said accounts so sworn to and certified shall be accepted by the said director, and payment shall be made thereon by draft in favor of each enumerator. The duties imposed upon the supervisor by this act shall be performed, in any and all particulars, in accordance with the instructions and directions of the director of the census: *Provided*, That if the supervisor of any district has not been appointed and qualified on the ninetieth day preceding the date fixed for the commencement of the enumeration, the director of the census may appoint a special agent, who shall be a resident of the same district, to perform the work of subdivision into enumeration districts: *And provided*, That any supervisor who may abandon, neglect, or improperly perform the duties required of him by this act may be removed by the director of the census, and any vacancy thus caused or otherwise occurring during the progress of the enumeration may be filled by the director of the census.

"SEC. 11. That each supervisor of census shall, upon the completion of his duties to the satisfaction of the director of the census, receive the sum of \$125, and in addition thereto, in thickly settled districts, \$1 for each thousand or majority fraction of a thousand of the population enumerated in such district, and in sparsely settled districts \$1.40 for each thousand or majority

fraction of a thousand of the population enumerated in such district; such sums to be in full compensation for all services rendered and expenses incurred by him, except that in serious emergencies arising during the progress of the enumeration in his district, or in connection with the re-enumeration of any subdivision, he may, in the discretion of the director of the census, be allowed actual and necessary traveling expenses and an allowance in lieu of subsistence not exceeding \$3 per day during his necessary absence from his usual place of residence, and that an appropriate allowance for clerk hire may be made when deemed necessary by the director of the census: *Provided*, That in the aggregate no supervisor shall be paid less than the sum of \$1,000. The designation of the compensation per thousand, as provided in this section, shall be made by the director of the census at least one month in advance of the date fixed for the commencement of the enumeration.

"SEC. 12. That each enumerator shall be charged with the collection, in his subdivision, of facts and statistics required by the population schedule, and such other schedules as the director of the census may determine shall be used by him in connection with the census, as provided in section 7 of this act. It shall be the duty of each enumerator to visit personally each dwelling house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of each family, or of the member thereof deemed most credible and worthy of trust, or of such individual living out of a family, to obtain each and every item of information and all particulars required by this act as of date June 1 of the year in which the enumeration shall be made. And in case no person shall be found at the usual place of abode of such family, or individual living out of a family, competent to answer the inquiries made in compliance with the requirements of this act, then it shall be lawful for the enumerator to obtain the required information, as nearly as may be practicable, from the family or families or person or persons living nearest to such place of abode; and it shall be the duty of each enumerator to forward the original schedules, duly certified, to the supervisor of census of his district as his returns under the provisions of this act; and in the event of discrepancies or deficiencies being discovered in his said returns he shall use all diligence in correcting or supplying the same. In case the subdivision assigned to any enumerator embraces all or any part of any incorporated borough, village, town, or city, and also other territory not included within the limits of such incorporated borough, village, town, or city, or either, it shall be the duty of the enumerator of such subdivision to clearly and plainly distinguish and separate, upon the population schedules, the inhabitants of all or any part of such borough, village, town, or city, as may be embraced in the subdivision assigned to such enumerator, from the inhabitants of the territory not included therein. No enumerator shall be deemed qualified to enter upon his duties until he has received from the supervisor of census of the district to which he belongs a commission, under his hand, authorizing him to perform the duties of an enumerator, and setting forth the boundaries of the subdivision within which such duties are to be performed by him.

"SEC. 13. That the subdivision assigned to any enumerator shall not exceed 4,000 inhabitants as near as may be, according to estimates based on the preceding census or other reliable informa-

tion, and the boundaries of all subdivisions shall be clearly described by civil divisions, rivers, roads, public surveys, or other easily distinguished lines: *Provided*, That enumerators may be assigned for the special enumeration of institutions, when desirable, without reference to the number of inmates.

"SEC. 14. That any supervisor of census may, with the approval of the director of the census, remove any enumerator in his district and fill the vacancy thus caused or otherwise occurring. Whenever it shall appear that any portion of the enumeration and census provided for in this act has been negligently or improperly taken, and is by reason thereof incomplete or erroneous, the director of the census may cause such incomplete and unsatisfactory enumeration and census to be amended or made anew under such methods as may, in his discretion, be practicable.

"SEC. 15. That the director of the census may authorize and direct supervisors of census to employ interpreters to assist the enumerators of their respective districts in the enumeration of persons not speaking the English language. The compensation of such interpreters shall be fixed by the director of the census in advance, and shall not exceed \$4 per day for each day actually and necessarily employed.

"SEC. 16. That the compensation of the enumerators shall be ascertained and fixed by the director of the census as follows: In subdivisions where he shall deem such allowance sufficient, an allowance of not less than 2 nor more than 3 cents for each living inhabitant and for each death reported; not less than 15 nor more than 20 cents for each farm; and not less than 20 nor more than 30 cents for each establishment of productive industry enumerated and returned may be given in full compensation for all services. For all other subdivisions per diem rates shall be fixed by the director of the census according to the difficulty of enumeration, having reference to the nature of the region to be canvassed and the density or sparseness of settlement, or other considerations pertinent thereto; but the compensation allowed to any enumerator in any such district shall not be less than \$3 nor more than \$6 per day of ten hours' actual field work each. The subdivisions to which the several rates of compensation shall apply shall be designated by the director of the census at least two weeks in advance of the enumeration. No claim for mileage or traveling expenses shall be allowed any enumerator in either class of subdivisions, except in extreme cases, and then only when authority has been previously granted by the director of the census, and the decision of the director as to the amount due any enumerator shall be final.

"SEC. 17. That the special agents appointed under the provisions of this act shall have equal authority with the enumerators in respect to the subjects committed to them under this act, and shall receive compensation at rates to be fixed by the director of the census: *Provided*, That the same shall in no case exceed \$6 per day and actual necessary traveling expenses and an allowance in lieu of subsistence not exceeding \$3 per day during their necessary absence from their usual place of residence: *And provided further*, That no pay or allowance in lieu of subsistence shall be allowed special agents when employed in the Census Office on other than the special work committed to them, and no appointments of special agents shall be made for clerical work.

"SEC. 18. That no supervisor, supervisor's clerk, enumerator, interpreter, or special agent shall

enter upon his duties until he has taken and subscribed to an oath or affirmation, to be prescribed by the director of the census; and no supervisor, supervisor's clerk, enumerator, or special agent shall be accompanied by or assisted in the performance of his duties by any person not duly appointed as an officer or employee of the Census Office, and to whom an oath or affirmation has not been duly administered. All appointees and employees provided for in this act shall be appointed or employed, and if examined, so examined, as the case may be, solely with reference to their fitness to perform the duties herein provided to be by such employee or appointee performed, and without reference to their political party affiliations.

"SEC. 19. That the enumeration of the population required by this act shall commence on the first day of June, 1900, and on the first day of June of the year in which each succeeding enumeration shall be made, and be taken as of that date. And it shall be the duty of each enumerator to complete the enumeration of his district and to prepare the returns hereinbefore required to be made, and to forward the same to the supervisor of census of his district, on or before the first day of July in such year: *Provided*, That in any city having 8,000 inhabitants or more under the preceding census the enumeration of the population shall be taken and completed within two weeks from the first day of June as aforesaid.

"SEC. 20. That if any person shall receive or secure to himself any fee, reward, or compensation as a consideration for the appointment or employment of any person as enumerator or clerk or other employee, or shall in any way receive or secure to himself any part of the compensation provided in this act for the services of any enumerator or clerk or other employee, he shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not more than \$3,000, or be imprisoned not more than one year, or both, in the discretion of the court.

"SEC. 21. That any supervisor, supervisor's clerk, enumerator, interpreter, special agent, or other employee, who, having taken and subscribed the oath of office required by this act, shall, without justifiable cause, neglect or refuse to perform the duties enjoined on him by this act, or shall, without the authority of the director of the census, communicate to any person not authorized to receive the same any information gained by him in the performance of his duties, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not exceeding \$500; or if he shall willfully and knowingly swear or affirm falsely, he shall be deemed guilty of perjury, and upon conviction thereof shall be imprisoned not exceeding three years and be fined not exceeding \$800; or if he shall willfully and knowingly make a false certificate or a fictitious return, he shall be guilty of a misdemeanor, and upon conviction of either of the last-named offenses he shall be fined not exceeding \$5,000 and be imprisoned not exceeding two years.

"SEC. 22. That each and every person more than twenty years of age belonging to any family residing in any enumeration district or subdivision, and in case of the absence of the heads and other members of any such family, then any representative of such family, shall be, and each of them hereby is, required, if thereto requested by the director, supervisor, or enumerator, to render a true account, to the best of his or her knowledge, of every person belonging to such family in the various particulars required, and

whoever shall willfully fail or refuse to render such true account shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding \$100. And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding \$10,000, to which may be added imprisonment for a period not exceeding one year.

"SEC. 23. That all fines and penalties imposed by this act may be enforced by indictment or information in any court of competent jurisdiction.

"SEC. 24. That the director of the census may authorize the expenditure of necessary sums for the traveling expenses of the officers and employees of the Census Office and the incidental expenses essential to the carrying out of this act, as herein provided for, and not otherwise, including the rental of sufficient quarters in the District of Columbia and the furnishing thereof and the maintenance of the printing outfit in the Census Office.

"SEC. 25. That the director of the census is hereby authorized to print and bind in the Census Office such blanks, circulars, envelopes, and other items as may be necessary; and to print, publish, and distribute from time to time bulletins and reports of the preliminary and other results of the various investigations required by this act.

"SEC. 26. That in case the director of the census deems it expedient he may contract for the use of electrical or mechanical devices for tabulating purposes: *Provided*, That in such case due notice shall be given to the public, and no system of tabulation shall be adopted until after a practical test of its merits in competition with other systems which may be offered.

"SEC. 27. That all mail matter, of whatever class, relative to the census and addressed to the Census Office, the director of the census, assistant director, chief clerk, supervisors, enumerators, or special agents, and indorsed 'Official business, Department of the Interior, Census Office,' shall be transmitted free of postage, and by registered mail if necessary, and so marked: *Provided*, That if any person shall make use of such indorsement to avoid the payment of postage or registry fee on his or her private letter, package, or other matter in the mail, the person so offending shall be guilty of a misdemeanor and subject to a fine of \$300, to be prosecuted in any court of competent jurisdiction.

"SEC. 28. That the Secretary of the Interior, on request of the director of the census, is hereby authorized to call upon any other department or office of the Government for information pertinent to the work herein provided for.

"SEC. 29. That such records, books, and files as relate to preceding censuses, and the printing-office outfit used in the eleventh census, and such furniture and property of whatever nature used at the eleventh census as may be necessary in conducting the work of the Census Office and can be spared from present uses, shall be transferred to the custody and control of the Census Office

created by this act. The said furniture and property shall be inventoried by the proper officers of the Department of the Interior when such transfer is made, and a copy of the inventory filed and preserved in the office of the Secretary of the Interior and of the director of the census.

"SEC. 30. That upon the request of the governor of any State or Territory, or the chief officer of any municipal government, the director of the census shall furnish such governor or municipal officer with a copy of so much of the population returns as will show the names, with the age, sex, color, or race, and birthplace only of all persons enumerated within the territory in the jurisdiction of such government, upon payment of the actual cost of making such copies; and the amounts so received shall be covered into the Treasury of the United States, to be placed to the credit of, and in addition to, the appropriations made for taking the census.

"SEC. 31. That the director of the census shall provide the Census Office with a seal containing such device as he may select, and he shall file a description of such seal with an impression thereof in the office of the Secretary of State. Such seal shall remain in the custody of the director of the census, and shall be affixed to all certificates and attestations that may be required from the Census Office.

"SEC. 32. That for the organization and equipment of the Census Office to perform the preparatory work necessary to carry out the provisions of this act the sum of \$1,000,000, to be available on the passage of this act, is hereby appropriated, out of any money in the Treasury not otherwise appropriated, and to continue available until exhausted. Of said appropriation such amount as may be considered by the director of the census to be necessary for immediate preliminary printing may be expended under the direction of the public printer. And the Secretary of the Interior shall submit to the Secretary of the Treasury, on or before Oct. 1, 1899, further estimates for the work herein provided for.

"SEC. 33. That the act entitled 'An Act to provide for the taking of the eleventh and subsequent censuses,' approved March 1, 1889, and all laws and parts of laws inconsistent with the provisions of this act are hereby repealed."

Expositions.—An act was passed by Congress, and approved by the President, March 3, 1899, to encourage the holding of a pan-American exposition on the Niagara frontier, within the county of Erie or Niagara, in the State of New York, in the year 1901. In the House of Representatives Mr. Alexander, of New York, said in explanation of the measure:

"Mr. Speaker, it is proposed by the people of Buffalo and western New York to hold a pan-American exposition in 1901. It is to be international in its character, but confined to the countries of North, South, and Central America. At the last session of Congress Senate concurrent resolution No. 141, approved by the President on July 8, 1898, gave encouragement to this enterprise; and based upon that encouragement and recognition by Congress the people of Buffalo and of western New York took up the matter with great energy.

"They have practically secured recognition from at least three countries of Central and South America; they have received assurances from a large number of exhibitors from Central and South America that their exhibits will be transferred after the close of the Paris Exposition to the Pan-American Exposition at Buffalo; they have received substantial assurances that

State exhibits of a most generous character will be made by Mexico and Brazil; they have received satisfactory assurances that Canada will come in force, making an exhibit representative of the wonderful resources of the large domain which lies upon the north. Upon these assurances our people have taken up the matter with so much energy that within thirty days the sum of a million and a half of dollars was raised to carry it on, a sum to be supplemented by one million more. The General Assembly of the State of New York, with the approval of Gov. Roosevelt, has added three hundred thousand more, so that there is to-day the equivalent of \$1,800,000 ready to be devoted to the purposes of this exposition.

"And now, Mr. Speaker, we come here not asking Congress for one dollar for an appropriation to carry on or to pay the expenses of this exposition. We propose to pay for that ourselves. We simply want Congress to make it possible for the United States to put up an exhibit of its own, as Brazil and Mexico have practically promised to do. We ask only that Congress shall treat us as she treated Chicago, Atlanta, New Orleans, Nashville, Omaha, and other cities in which expositions have been held; that the Government may send us a splendid exhibit, showing the magnificent growth and progress of the world's great republic during the nineteenth century.

"Mr. Speaker, the idea of this exposition had its inception when the great cataract of Niagara was successfully harnessed so that its tremendous water power could be converted into electric power. Our purpose is to demonstrate to the world, and especially to the Western Hemisphere, that Niagara Falls is not only capable of, but now is developing, a power greater than is known elsewhere in the whole world, and we desire to make this exposition a celebration of that event, surely one of the greatest that has happened in the history of the world. In such an endeavor Congress ought cheerfully and gladly to have this country participate, and by a generous appropriation to aid us in fittingly illustrating the marvelous development of the Western Hemisphere during the present century by a complete and satisfactory display of the arts, industries, and manufactures and the products of the soil, of the mines, and of the sea."

The text of the act is as follows:

"Whereas, It is desirable to encourage the holding of a pan-American exposition on the Niagara frontier, within the county of Erie or Niagara, in the State of New York, in the year 1901, to fittingly illustrate the marvelous development of the Western Hemisphere during the nineteenth century, by a display of the arts, industries, manufactures, and products of the soil, mines, and sea; and

"Whereas, The proposed pan-American exposition, being confined to the Western Hemisphere, and being held in the near vicinity of the great Niagara cataract, within a day's journey of which reside 40,000,000 people, would unquestionably be of vast benefit to the commercial interests not only of this country but of the entire hemisphere, and should therefore have the sanction of the Congress of the United States; and

"Whereas, Satisfactory assurances have already been given by the diplomatic representatives of Canada, Mexico, the Central and South American republics, and most of the States of the United States that these countries and States will make unique, interesting, and instructive exhibits peculiarly illustrative of their material progress during the century about to close; and

"Whereas, No exposition of a similar character as that proposed has ever been held in the great State of New York; and

"Whereas, The Pan-American Exposition Company has undertaken to hold such exposition, beginning on the first day of May, 1901, and closing on the first day of November, 1901; therefore,

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all articles that shall be imported from foreign countries for the sole purpose of exhibition at said exposition upon which there shall be a tariff or customs duty shall be admitted free of payment of duty, customs fees, or charges, under such regulation as the Secretary of the Treasury shall prescribe; but it shall be lawful at any time during the exposition to sell for delivery at the close thereof any goods or property imported for or actually on exhibition in the exposition buildings, or on the grounds, subject to such regulation for the security of the revenue and for the collection of import duties as the Secretary of the Treasury shall prescribe: *Provided*, That all such articles when sold or withdrawn for consumption in the United States shall be subject to the duty, if any, imposed upon such articles by the revenue laws in force at the date of importation, and all penalties prescribed by law shall be applied and enforced against the persons who may be guilty of any illegal sale or withdrawal: *And provided further*, That all necessary expenses incurred in carrying out the provisions of this section, including salaries of customs officials in charge of imported articles, shall be paid to the Treasury of the United States by the Pan-American Exposition Company, under regulations to be prescribed by the Secretary of the Treasury.

"SEC. 2. That there shall be exhibited at said exposition by the Government of the United States, from its executive departments, the Smithsonian Institution and National Museum, the United States Commission of Fish and Fisheries, the Department of Labor, and the Bureau of the American Republics, such articles and material as illustrate the function and administrative faculty of the Government in time of peace, and its resources as a war power, and its relations to other American republics, tending to demonstrate the nature of our institutions and their adaption to the wants of the people. And to secure a complete and harmonious arrangement of such Government exhibit, a board of management shall be created, to be charged with the selection, purchase, preparation, transportation, arrangement, safe-keeping, exhibition, and return of such articles and materials as the heads of the several departments and the secretary of the Smithsonian Institution, the Commissioner of Fish and Fisheries, the Commissioner of Labor, and the director of the Bureau of the American Republics may respectively decide shall be embraced in said Government exhibit.

"The President may also designate additional articles for exhibition. Such board shall be composed of one person to be named by the head of each executive department, one by the head of the Smithsonian Institution and National Museum, one by the head of the United States Commission of Fish and Fisheries, one by the Commissioner of Labor, and one by the director of the Bureau of the American Republics. The President shall name one of said persons so detailed as chairman, and the board itself shall appoint its secretary, disbursing officer, and such other officers as it may deem necessary. The members

of said board of management, with other officers and employees of the Government who may be detailed to assist them, including officers of the army and navy, shall receive no compensation in addition to their regular salaries, but they shall be allowed their actual and necessary traveling expenses, together with a per diem in lieu of subsistence, to be fixed by the Secretary of the Treasury, while necessarily absent from their homes engaged upon the business of the board.

"Officers of the army and navy shall receive this allowance in lieu of the transportation and mileage now allowed by law. Any provision of law which may prohibit the detail of persons in the employ of the United States to other service than that which they customarily perform shall not apply to persons detailed for duty in connection with the Pan-American Exposition. Employees of the board not otherwise employed by the Government shall be entitled to such compensation as the board may determine. The disbursing officer shall give bond in the sum of \$20,000 for the faithful performance of his duties, said bond to be approved by the Secretary of the Treasury. The Secretary of the Treasury shall advance to said officer from time to time, under such regulations as the Secretary of the Treasury may prescribe, a sum of money from the appropriation for the Government exhibit, not exceeding at any one time three fourths of the penalty of his bond, to enable him to pay the expenses of said exhibit as authorized by the board of management herein created.

"SEC. 3. That the Secretary of the Treasury shall cause a suitable building or buildings to be erected on the site selected for the Pan-American Exposition for the Government exhibits, from plans to be approved by the board, and he is hereby authorized and directed to contract therefor in the same manner and under the same regulations as for other public buildings of the United States; but the contract for said building or buildings shall not exceed the sum of \$200,000, said sum being hereby appropriated for said purpose, out of any money in the Treasury not otherwise appropriated. The Secretary of the Treasury is authorized and required to dispose of such building or buildings, or the material composing the same, at the close of the exposition, giving preference to the city of Buffalo or to the said Pan-American Exposition Company to purchase the same at an appraised value, to be ascertained in such manner as may be determined by the Secretary of the Treasury.

"SEC. 4. That the United States shall not be liable on account of said exposition for any expense incident to or growing out of same, except for the construction of the building or buildings hereinbefore provided for, and for the purpose of paying the expense of selection, preparation, purchase, installation, transportation, care, custody, and safe return of exhibits by the Government, for the employment of proper persons as officers and assistants by the board of management created by this act and for their expenses, and for the maintenance of the said building or buildings and other contingent expenses, to be approved by the chairman of the board of management, or, in the event of his absence or disability, by such other officer as the board may designate, and the Secretary of the Treasury upon itemized accounts and vouchers; and the total cost of said building or buildings shall not exceed the sum of \$200,000; nor shall the expenses of said Government exhibit for each and every purpose connected therewith, including transportation, not exceed the sum of \$300,000, amounting in all to not

exceeding the sum of \$500,000, which sum is hereby appropriated, out of any money in the Treasury not otherwise appropriated, the sum of \$500,000, or so much thereof as may be necessary, to be disbursed by the board of management hereinbefore created, of which not exceeding the sum of \$10,000 shall be expended for clerical service: *Provided*, That no liability against the Government shall be incurred, and no expenditure of money under this act shall be made, until the officers of said exposition shall have furnished the Secretary of the Treasury proofs to his satisfaction that there has been obtained by said exposition corporation subscriptions of stock in good faith, contributions, donations, or appropriations from all sources for the purposes of said exposition a sum aggregating not less than \$500,000.

"SEC. 5. That medals, with appropriate devices, emblems, and inscriptions commemorative of said Pan-American Exposition, and of the awards to be made to the exhibitors thereat, shall be prepared at some mint of the United States for the board of directors thereof, subject to the provisions of the fifty-second section of the coinage act of 1893, upon the payment of a sum not less than the cost thereof; and all the provisions, whether penal or otherwise, of said coinage act against the counterfeiting or imitation of coins of the United States shall apply to the medals struck and issued under this act.

"SEC. 6. That the United States shall not in any manner nor under any circumstances be liable for any of the acts, doings, proceedings, or representations of said Pan-American Exposition Association, its officers, agents, servants, or employees, or any of them, or for service, salaries, labor, or wages of said officers, agents, servants, or employees, or any of them, or for any subscriptions to the capital stock, or for any certificates of stock, bonds, mortgages, or obligations of any kind issued by said corporation, or for any debts, liabilities, or expenses of any kind whatever attending such corporation, or accruing by reason of the same.

"SEC. 7. That nothing in this act shall be so construed as to create any liability of the United States, direct or indirect, for any debt or obligation incurred, nor for any claim for aid or pecuniary assistance from Congress or the Treasury of the United States in support or liquidation of any debts or obligations created by said commission in excess of appropriations made by Congress therefor.

"SEC. 8. That the appropriation herein made of \$500,000 in all shall take effect and become available immediately upon the passage of this act."

A similar act was passed and approved to encourage the holding of the Ohio Centennial and Northwest Territory Exposition at Toledo. Mr. Southard, of Ohio, said in explanation of it in the House of Representatives:

"Mr. Speaker, the idea of holding an Ohio centennial and Northwest exposition did not originate in the city of Toledo, and I do not know that it originated in the State of Ohio. For a good many years the people of the State of Ohio have been talking about some appropriate celebration of the one hundredth anniversary of its admission into the Union as a State.

"In 1802 Ohio was admitted as a State. It was the first State to be carved out of what was known as the old Northwest, or the Northwest Territory, which was, in a sense, the first public domain of the United States. When Ohio was admitted into the Union as a State she had 48,000

inhabitants. One hundred years later she will have a population one hundred times as great.

"That which may be said of the growth and development of Ohio as a State—and we all agree that a good deal may be said—can be said of each one of the other States carved out of this Northwest Territory. There are five of them—Ohio, Michigan, Indiana, Illinois, and Wisconsin—and a part of the State of Minnesota was originally included in this Northwest Territory.

"As I say, the people of Ohio have been talking about this for a good many years, and last winter the project took shape in an act of the Legislature providing for the holding of an Ohio centennial and Northwest Territory exposition in the year 1902. The Legislature determined the place at which it should be held. They selected Toledo for a number of good reasons. One is that it is located most conveniently for the people of the old Northwest. Another is that it is located upon the lakes, and has the best possible site for the holding of a great national exposition.

"The city of Toledo has already appropriated \$150,000 for the preparation of the grounds, and will be obliged to appropriate \$150,000 more, making \$300,000 for the fitting up of the grounds on which to hold this centennial exposition.

"Some of the other States, following the initiative taken by Ohio, have appointed commissions similar to that which was appointed in the State of Ohio. Indiana and, I understand, Michigan have appointed commissions similar to that appointed in Ohio, who are charged with the duty of promoting the Northwest Territory Exposition on the part of those States.

"A company known as the Ohio Centennial Company has been organized, with a capital of \$500,000, for the purpose of promoting this project. Within a very few days after this company was organized a few persons desired and offered to take all the stock. I am informed a large part of this stock has already been subscribed in small amounts, for it was thought desirable to have this stock subscribed for in small amounts rather than in large amounts, because of the greater interest which would thereby be created in the centennial. This is the course which will be pursued with reference to the stock which remains unsubscribed, as well as to any increase of the capital stock which may be made hereafter. Invitations already have been extended to all States of the Union to take part in this exposition, and many of them have responded in such a way as to lead to the belief that there is not a State in the Union that will not give some active support to this project.

"It is proposed to make this exposition international in its character, and not confine it to the United States. It will be international as well as national. It is one of the most meritorious projects which have ever been started. It will be one of the greatest expositions ever given in this country, not excepting that at Chicago, as I verily believe. The amount asked for is a very modest one, the same as that asked for in the Buffalo bill."

The following act to provide for an appropriate celebration of the establishment of the seat of government in the District of Columbia was passed and approved:

"*Be it enacted, etc.*, The President is authorized to appoint a committee from the country at large, of such number as he shall think proper, to act with any committees that may be appointed by the two houses of Congress or either of them, and with any committee that may be appointed from the citizens of the District of Columbia, who

may prepare plans for an appropriate national celebration, in the year 1900, of the first session of Congress in the District and the establishment of the seat of Government therein. Said committee shall report their proceedings to the President, to be by him communicated to Congress.

"SEC. 2. The actual expenses of the members of said committee so appointed by the President shall be paid by the Secretary of the Treasury on vouchers to be approved by the Secretary of the Interior.

"SEC. 3. The sum of \$10,000, or so much thereof as may be necessary, is hereby appropriated, from any money in the Treasury not otherwise appropriated, to carry into effect the second section of this act."

An act was passed also providing for a national exposition of American products and manufactures, at the city of Philadelphia, for the encouragement of the export trade.

Protection of American Seamen.—In settlement of a long controversy Congress passed a code for the regulation of the merchant marine service, entitled "An Act to amend the laws relating to American seamen, for the protection of such seamen, and to promote commerce." Mr. Payne, of New York, said in explanation of the measure:

"I will state that it is designed to settle in some respects a controversy that has been going on between the owners of vessels and seamen for a number of years, and to amend the antiquated laws in reference to the government of vessels and the government of sailors at sea. Many bills have been introduced and many attempts made for years by Congress to adjust these differences. Three years ago we passed a bill which covered all the points of this bill, and I think it was a little better bill than the Senate has sent us—certainly in two or three particulars—but that bill failed because the Senate did not consider it, although they had a year in which to do so. In this Congress we asked the seamen and shipowners to go to the Senate committee and give them the benefit of their experience as they gave it to us in the last Congress, and the result is this bill, which has passed the Senate.

"I am assured by some of the Senators that this bill is the result of a compromise on the part of the vessel owners and the seamen, and that, inasmuch as they have agreed to its provisions, we have been anxious that the bill should pass the House as it came from the Senate. The bill went before the Committee on Merchant Marine and Fisheries at the last session, and that committee unanimously directed me to report the bill without amendment to the House. The bill does away in a great measure with what was called the allotment system, which allowed the sailor when he shipped to make an agreement allotting or setting aside and transferring all his wages for the payment of any debt which he might owe. The sailor, being an improvident person, will quite likely be in debt for various things which furnish no equivalent for the amount of his indebtedness; so they might set aside the whole of the wages for that voyage by reason of the allotment system.

"This bill does not do away with the system entirely, but it does away with all allotments over one month's wages. It allows an allotment of one month's wages for the payment of any valid debt for board or clothing which the sailor may have incurred not beyond the amount of one month's wages, and it is only upon such recommendations or rules as the Secretary of the Treas-

ury and Commissioner of Navigation may adopt. It allows the allotment of a sailor's wages, however, to be paid to his family, father, mother, brother, sister, or wife, as the sailor may designate, for any purpose whatever for the support of those who are dependent upon him while absent upon the voyage. These are, briefly, the provisions in regard to allotment.

"The present law allows imprisonment of the sailor who may desert, where he has shipped on a vessel; and if he does not render himself upon the vessel before the vessel sails, he is liable to imprisonment, and so on in every place where the vessel calls he is liable to imprisonment for a violation of his contract. This bill does away with all imprisonment for desertion except in one case, and that is where a vessel is in a foreign port and the sailor deserts. In that case, in the discretion of the court, he may be imprisoned not to exceed one month. I should have liked the bill better if that provision had been stricken out entirely, but hesitated to ask an amendment of the statute for fear the bill might meet the same fate that the bill met in a former Congress, because I was informed on all hands that the sailors and the vessel owners had agreed upon that, in view of some other concession. I am told that practically a seaman is seldom imprisoned because of desertion. The vessel owners claim that they want this clause retained, in order to discourage desertion in foreign ports, and the reason for that is because when a sailor deserts a vessel in a foreign port it would cause great delay in the prosecution of the voyage and great damage and disappointment to the people who are to receive the cargo, and perhaps endanger the lives of those who had shipped upon the voyage.

"Another provision has been made in the bill that compels the master, whenever there is a desertion or loss of seamen by desertion or by casualty, to ship the full complement of seamen, and seamen of the same class as those whose places he employs them to fill. So that the vessel shall never be without the full complement of sailors as was originally arranged by the shipping commissioner, an officer of the United States. The present law provides a scale of provisions which is perhaps adequate, if it is always lived up to. But the law provides that the sailor may agree in his contract of shipping to waive certain portions of the scale of provisions, or any portion of it, and accept a substitute. It is claimed, and without doubt is true, that this provision gives rise to many abuses, because the sailor, being anxious for a job and perhaps unable longer to pay his board, is often forced to make a contract which gives him an insufficient scale of provisions for the voyage, and results often in disease and sometimes in the death of the sailor.

"This bill not only provides a full scale of provisions, but it was a scale adopted after careful study and examination, on the recommendation of the surgeon general of the Navy Department and the surgeon general of the Marine Hospital, and, I believe, one other expert, and they said, after they had arranged this scale, that if it was provided for the sailors it would virtually abolish scurvy and kindred diseases.

"The bill also provides that the master shall take provisions and supply this scale for the entire voyage when he starts out. It does not leave it to the contract with the sailor; he can not be cheated out of it. It does provide that a few items may be dispensed with; but if they are, certain others must be provided equally good,

and which may be arranged by agreement, but they must have the provisions in this scale. If any member desires to examine this scale he will find a large bill of fare on page 21 of the bill. It seems to me ample and liberal. So that that abuse will be entirely abolished if this bill is passed.

"Years ago Congress passed a law saying substantially that flogging on board vessels is abolished. This bill goes farther than that. It not only abolishes flogging, but it provides a very severe and suitable punishment for the violation of the law if any master of a vessel, or the mate of a vessel, seeks to indulge in the pastime of flogging the sailor on his voyage. The law now is without penalty. This bill provides an adequate penalty for the violation of that law. There are other minor provisions in the bill, all of which go to improve the condition of the sailor and to provide for the safety of the vessel. I think that the bill as it now stands is an immense advance over the present law, and is in the direction of all the reforms that have been advocated in the last dozen years in the House.

"I am only anxious that it shall speedily become a law, and I should regret very much if the House should amend the bill, not because I am not in sympathy with some of the amendments, and not that I would not like to see it made exactly like the bill that went from the House at the last Congress, but because the fear that if amendments go into the bill, and it goes to the Senate, it will meet the fate of the bill in the last Congress, and thus these immense advantages be lost to our sailors."

Mr. Handy, of Delaware, opposed certain features of the measure, and submitted amendments which were not adopted. He said:

"Mr. Speaker, unquestionably, as the gentleman from New York has informed the House, this bill, even as it stands, would, if passed, be a vast improvement over the present law; yet there are at least two features of it which are so far from what is just and right that the House should amend the bill and send it back to the Senate for concurrence.

"One of these features the gentleman [Mr. Payne] has referred to. It is the feature that provides imprisonment of a seaman for the violation of a civil contract. The seaman enters into a contract with the master of a ship to render personal service on a voyage at sea, and then at a foreign port for some reason sufficient to the seaman, perchance because of ill treatment on the voyage, he wishes to leave.

"If he does leave he has, of course, violated his civil contract, and yet who shall say that he has committed any crime? He has simply given up his job. He has refused to continue his labor. He has quit work. If you force him to continue by fines and penalties the work he desires to leave, you reduce him to a condition of involuntary servitude. He becomes more slave than freeman. Surely such a violation of a contract for personal service in the case of any man not a seaman would be a violation to be made right by money damages. Yet this bill provides for the imprisonment of the seaman.

"The master of the ship can, as a matter of practice, get rid of his seamen at any port. He can make life so unbearable for the seamen aboard ship that they will for the sake of comfort and decency of life be only too glad to leave the ship. When the master of a ship in a foreign port wants to get rid of his crew, and thereby terminate the contract from his side, he does not as a usual thing hesitate to do it. He makes

the ship too hot to hold the crew. But if the crew want to get rid of the master, they may be arrested as deserters and put in jail.

"If the master, by evil treatment, forces the crew to desert, the law does not bring imprisonment nigh to him. He can first force them by evil treatment to desert, and then he can put them in jail because they have deserted. That is an injustice, and there is no real reason for it. It has not even the poor excuse that the crew must be held to their ship by fear of prison walls, lest if they leave their places may not be filled by shipping a new crew. In any foreign port, or in almost any foreign port, an American vessel can get a new crew just as easily as in one of our own ports.

"The sailor is a citizen of the world, and a crew can be enlisted in any port. He is a laboring man, and should be a free laboring man, not subject to imprisonment when he leaves his work. Let him do his work freely, not held to it by criminal penalties enforced by law. There may be some who would abridge the freedom of laborers and whip them to their tasks by penal statutes, but I do not fancy that any member of this House shares or tolerates such sentiments. We, I take it, prefer even sailors to be free to give or to withhold their labor, unawed by threat or fear of imprisonment.

"Mr. Speaker, I have prepared an amendment striking out of this bill those few lines which would continue in our law that old relic of the barbarism of the forecabin, imprisoning seamen for the violation of a civil contract.

"Now, Mr. Speaker, there is another provision in this bill which should be wiped out by amendment. It is the provision for allotment, by which, under what is known as the 'crimping' system, the boarding-house keeper of the port manages to get into his hands before the sailor leaves the greater part of the wages which should come to the sailor for his labor on the voyage. Poor Jack Tar comes ashore on pleasure bent. He gets it in his own time-honored way, and is soon in a condition in which he is far from fit to transact business. The boarding-house keeper, who makes a specialty of entertaining and robbing sailors, gets after him before Jack gets sober and delivers him per chance on board a ship bound for another voyage, and Jack Tar wakes to a sober second thought after he is once more afloat on the rolling blue. He wakes to discover that for no real value received he has signed away one month of his pay.

"Perhaps he has been only one night with the boarding-house keeper; but when he awakes he is far away on the sea, and has signed away his wages for a month. The boarding-house keeper has Jack Tar's wages for a month in his pocket; Jack Tar has a month of hard and dangerous work ahead of him. The system of allotments has had its sweet way.

"This bill does, of course, limit that matter and keep it in more narrow bounds than hitherto, but it still leaves the opportunity which I have stated to the boarding-house keeper and the 'crimper' and the men whose business it is to get what they call 'blood money' from the seamen. It still says to men of this class: 'You shall be protected to the extent of one month of Jack Tar's pay.' But I suppose this is a bill of compromises, and we are asked to compromise in this bill even with those people who carry on the nefarious business of 'crimping' one month from the pay of the sailor before he leaves port."

The full text of the measure as approved, Dec. 21, 1898, is as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 4516 of the Revised Statutes be, and is hereby, amended so as to read as follows:

"SEC. 4516. In case of desertion or casualty resulting in the loss of one or more seamen, the master must ship, if obtainable, a number equal to the number of those whose services he has been deprived of by desertion or casualty, who must be of the same grade or rating and equally expert with those whose place or position they refill, and report the same to the United States consul at the first port at which he shall arrive, without incurring the penalty prescribed by the two preceding sections.

"SEC. 2. That section 4522 of the Revised Statutes be, and is hereby, amended so as to read as follows:

"SEC. 4522. At the foot of every such contract to ship upon such a vessel of the burden of 50 tons or upward there shall be a memorandum in writing of the day and the hour when such seaman who shipped and subscribed shall render himself on board to begin the voyage agreed upon. If any seaman shall neglect to render himself on board the vessel for which he has shipped at the time mentioned in such memorandum without giving twenty-four hours' notice of his inability to do so, and if the master of the vessel shall, on the day in which such neglect happened, make an entry in the log book of such vessel of the name of such seaman, and shall in like manner note the time that he so neglected to render himself after the time appointed, then every such seaman shall forfeit for every hour which he shall so neglect to render himself one half of one day's pay, according to the rate of wages agreed upon, to be deducted out of the wages. If any such seaman shall wholly neglect to render himself on board of such vessel, or having rendered himself on board shall afterward desert, he shall forfeit all of his wages or emoluments which he has then earned."

"SEC. 3. That section 4526 of the Revised Statutes be, and is hereby, amended so as to read as follows:

"SEC. 4526. In cases where the service of any seaman terminates before the period contemplated in the agreement, by reason of the loss or wreck of the vessel, such seaman shall be entitled to wages for the time of service prior to such termination, but not for any further period. Such seaman shall be considered as a destitute seaman, and shall be treated and transported to port of shipment as provided in sections 4577, 4578, and 4579 of the Revised Statutes of the United States."

"SEC. 4. That section 4529 of the Revised Statutes be, and is hereby, amended so as to read as follows:

"SEC. 4529. The master or owner of any vessel making coasting voyages shall pay to every seaman his wages within two days after the termination of the agreement under which he shipped, or at the time such seaman is discharged, whichever first happens; and in the case of vessels making foreign voyages, or from a port on the Atlantic to a port on the Pacific, or *vice versa*, within twenty-four hours after the cargo has been discharged, or within four days after the seaman has been discharged, whichever first happens; and in all cases the seaman shall, at the time of his discharge, be entitled to be paid, on account of wages, a sum equal to one third part of the balance due him. Every master or owner who refuses or neglects to make payment in man-

ner hereinbefore mentioned without sufficient cause shall pay to the seaman a sum equal to one day's pay for each and every day during which payment is delayed beyond the respective periods, which sum shall be recoverable as wages in any claim made before the court; but this section shall not apply to the masters or owners of any vessel the seamen on which are entitled to share in the profits of the cruise or voyage.'

"SEC. 5. That section 4530 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4530. Every seaman on a vessel of the United States shall be entitled to receive from the master of the vessel to which he belongs one half part of the wages which shall be due him at every port where such vessel, after the voyage has commenced, shall load or deliver cargo before the voyage is ended unless the contrary be expressly stipulated in the contract; and when the voyage is ended every such seaman shall be entitled to the remainder of the wages which shall then be due him as provided in section 4529 of the Revised Statutes.'

"SEC. 6. That section 4547 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4547. If the master against whom such summons is issued neglects to appear, or, appearing, does not show that the wages are paid or otherwise satisfied or forfeited, and if the matter in dispute is not forthwith settled, the judge or justice or commissioner shall certify to the clerk of the district court that there is sufficient cause of complaint whereon to found admiralty process; and thereupon the clerk of such court shall issue process against the vessel. In all cases where the matter in demand does not exceed \$100 the return day of the monition or citation shall be the first day of a stated or special session of court next succeeding the third day after the service of the monition or citation, and on the return of process in open court, duly served, either party may proceed therein to proofs and hearing without other notice, and final judgment shall be given according to the usual course of admiralty courts in such cases. In such suits all the seamen having cause of complaint of the like kind against the same vessel may be joined as complainants, and it shall be incumbent on the master to produce the contract and log book, if required to ascertain any matter in dispute; otherwise the complainants shall be permitted to state the contents thereof, and the burden of proof of the contrary shall be on the master. But nothing herein contained shall prevent any seaman from maintaining any action at common law for the recovery of his wages, or having immediate process out of any court having admiralty jurisdiction wherever any vessel may be found, in case she shall have left the port of delivery where her voyage ended before payment of the wages, or in case she shall be about to proceed to sea before the end of the ten days next after the day when such wages are due, in accordance with section 4529 of the Revised Statutes.'

"SEC. 7. That section 4556 of the Revised Statutes be, and hereby is, amended so as to read as follows:

"SEC. 4556. If the first and second officers under the master or a majority of the crew of any vessel bound on any voyage shall, before the vessel shall have left the harbor, discover that the vessel is too leaky or is otherwise unfit in her crew, body, tackle, apparel, furniture, provisions, or stores to proceed on the intended voyage, and shall require such unfitness to be in-

quired into, the master shall, upon the request of the first and second officers under the master or such majority of the crew, forthwith apply to the judge of the district court of that judicial district, if he shall there reside, or if not, to some justice of the peace of the city, town, or place for the appointment of surveyors, as in section 4557 provided, taking with him two or more of the crew who shall have made such request; and any master refusing or neglecting to comply with these provisions shall be liable to a penalty of \$500.'

"SEC. 8. That section 4557 of the Revised Statutes be, and hereby is, amended to read as follows:

"SEC. 4557. The judge, or justice, in a domestic port, shall, upon such application of the master or commander, issue his precept, directed to three persons in the neighborhood, the most experienced and skillful in maritime affairs that can be procured; and whenever such complaint is about the provisions one of such surveyors shall be a physician or a surgeon of the Marine-Hospital Service, if such service is established at the place where the complaint is made. It shall be the duty of such surveyors to repair on board such vessel and to examine the same in respect to the defects and insufficiencies complained of, and make reports to the judge, or justice, as the case may be, in writing, under their hands or the hands of two of them, whether in any or in what respect the vessel is unfit to proceed on the intended voyage, and what addition of men, provisions, or stores, or what repairs or alterations in the body, tackle, or apparel will be necessary; and upon such report the judge or justice shall adjudge and shall indorse on his report his judgment whether the vessel is fit to proceed on the intended voyage, and, if not, whether such repairs can be made or deficiencies supplied where the vessel then lies, or whether it is necessary for her to proceed to the nearest or most convenient place where such supplies can be made or deficiencies supplied; and the master and the crew shall, in all things, conform to the judgment. The master or commander shall, in the first instance, pay all the costs of such review, report, or judgment, to be taxed and allowed on a fair copy thereof, certified by the judge or justice. But if the complaint of the crew shall appear upon the report and judgment to have been without foundation, the master or commander, or the owner or consignee of such vessel, shall deduct the amount thereof, and of reasonable damages for the detention, to be ascertained by the judge or justice, out of the wages of the complaining seamen.'

"SEC. 9. That section 4558 of the Revised Statutes be, and hereby is, amended to read as follows:

"SEC. 4558. If, after judgment that such vessel is fit to proceed on her intended voyage, or after procuring such men, provisions, stores, repairs, or alterations as may be directed, the seamen, or either of them, shall refuse to proceed on the voyage, he shall forfeit any wages that may be due him.'

"SEC. 10. That section 4559 of the Revised Statutes be, and hereby is, amended to read as follows:

"SEC. 4559. Upon a complaint in writing, signed by the first or second officer and a majority of the crew of any vessel while in a foreign port, that such vessel is in an unsuitable condition to go to sea because she is leaky or insufficiently supplied with sails, rigging, anchors, or any other equipment, or that the crew

is insufficient to man her, or that her provisions, stores, and supplies are not, or have not been during the voyage, sufficient and wholesome; thereupon, in any of these or like cases, the consul, or a commercial agent who may discharge any duties of a consul, shall cause to be appointed three persons, of like qualifications with those described in section 4557, who shall proceed to examine into the causes of complaint, and they shall be governed in all their proceedings and proceed as provided in section 4557.

"SEC. 11. That section 4561 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4561. The inspectors in their report shall also state whether in their opinion the vessel was sent to sea unsuitably provided in any important or essential particular, by neglect or design, or through mistake or accident; and in case it was by neglect or design, and the consular officer approves of such finding, he shall discharge such of the crew as request it, and shall require the payment by the master of one month's wages for each seaman over and above the wages then due, or sufficient money for the return of such of the crew as desire to be discharged to the nearest and most convenient port of the United States, or by furnishing the seamen who so desire to be discharged with employment on a ship agreed to by them. But if in the opinion of the inspectors the defects or deficiencies found to exist have been the result of mistake or accident, and could not, in the exercise of ordinary care, have been known and provided against before the sailing of the vessel, and the master shall in a reasonable time remove or remedy the causes of complaint, then the crew shall remain and discharge their duty. If any person knowingly sends or attempts to send or is party to the sending or attempting to send an American ship to sea, in the foreign or coastwise trade, in such an unseaworthy state that the life of any person is likely to be thereby endangered, he shall, in respect of each offense, be guilty of a misdemeanor, and shall be punished by a fine not to exceed \$1,000 or by imprisonment not to exceed five years, or both, at the discretion of the court, unless he proves that either he used all reasonable means to insure her being sent to sea in a seaworthy state, or that her going to sea in an unseaworthy state was, under the circumstances, reasonable and justifiable, and for the purposes of giving that proof he may give evidence in the same manner as any other witness.

"SEC. 12. That section 4564 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4564. Should any master or owner of any merchant vessel of the United States neglect to provide a sufficient quantity of stores to last for a voyage of ordinary duration to the port of destination, and in consequence of such neglect the crew are compelled to accept a reduced scale, such master or owner shall be liable to a penalty as provided in section 4568 of the Revised Statutes.

"SEC. 13. That section 4566 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4566. If the officer to whom any such complaint in regard to the provisions or the water is made certifies in such statement that there was no reasonable ground for such complaint, each of the parties so complaining shall forfeit to the master or owner his share of the expense, if any, of the survey.

"SEC. 14. That section 4568 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4568. If, during a voyage, the allowance of any of the provisions which any seaman is entitled to under section 4612 of the Revised Statutes is reduced except for any time during which such seaman willfully and without sufficient cause refuses or neglects to perform his duty, or is lawfully under confinement for misconduct either on board or on shore; or if it shall be shown that any of such provisions are, or have been during the voyage, bad in quality or unfit for use, the seaman shall receive, by way of compensation for such reduction or bad quality, according to the time of its continuance, the following sums, to be paid to him in addition to and to be recoverable as wages:

"First. If his allowance is reduced by any quantity not exceeding one third of the quantity specified by law, a sum not exceeding 50 cents a day.

"Second. If his allowance is reduced by more than one third of such quantity, a sum not exceeding \$1 a day.

"Third. In respect of bad quality, a sum not exceeding \$1 a day.

"But if it is shown to the satisfaction of the court before which the case is tried that any provisions, the allowance of which has been reduced, could not be procured or supplied in sufficient quantities, or were unavoidably injured or lost, or if by reason of its innate qualities any article becomes unfit for use, and that proper and equivalent substitutes were supplied in lieu thereof, the court shall take such circumstances into consideration, and shall modify or refuse compensation, as the justice of the case may require."

"SEC. 15. That section 4572 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4572. Every vessel bound on any foreign voyage exceeding in length fourteen days shall also be provided with at least one suit of woolen clothing for each seaman, and every vessel in the foreign or domestic trade shall provide a safe and warm room for the use of seamen in cold weather. Failure to make such provision shall subject the owner or master to a penalty of not less than \$100."

"SEC. 16. That section 4581 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4581. If any consular officer, when discharging any seaman, shall neglect to require the payment of and collect the arrears of wages and extra wages required to be paid in the case of the discharge of any seaman, he shall be accountable to the United States for the full amount thereof. The master shall provide any seaman so discharged with employment on a vessel agreed to by the seaman, or shall provide him with one month's extra wages, if it shall be shown to the satisfaction of the consul that such seaman was not discharged for neglect of duty, incompetency, or injury incurred on the vessel. If the seaman is discharged by voluntary consent before the consul, he shall be entitled to his wages up to the time of his discharge, but not for any further period. If the seaman is discharged on account of injury or illness, incapacitating him for service, the expenses of his maintenance and return to the United States shall be paid from the fund for the maintenance and transportation of destitute American seamen."

"SEC. 17. That section 4582 of the Revised

Statutes be, and is hereby, amended to read as follows:

"SEC. 4582. Whenever a vessel of the United States is sold in a foreign country and her company discharged, it shall be the duty of the master to produce to the consular officer a certified list of the ship's company, and also the shipping articles, and besides paying to each seaman or apprentice the wages due him, he shall either provide him with adequate employment on board some other vessel bound to the port at which he was originally shipped, or to such other port as may be agreed upon by him, or furnish the means of sending him to such port, or provide him with a passage home, or deposit with the consular officer such a sum of money as is by the officer deemed sufficient to defray the expenses of his maintenance and passage home; and the consular officer shall indorse upon the agreement with the crew of the ship which the seaman or apprentice is leaving the particulars of any payment, provision, or deposit made under this section. A failure to comply with the provisions of this section shall render the owner liable to a fine of not exceeding \$50."

"SEC. 18. That section 4583 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4583. Whenever on the discharge of a seaman in a foreign country by a consular officer on his complaint that the voyage is continued contrary to agreement, or that the vessel is badly provisioned or unseaworthy, or against the officers for cruel treatment, it shall be the duty of the consul or consular agent to institute a proper inquiry into the matter, and, upon his being satisfied of the truth and justice of such complaint, he shall require the master to pay to such seaman one month's wages over and above the wages due at the time of discharge, and to provide him with adequate employment on board some other vessel, or provide him with a passage on board some other vessel bound to the port from which he was originally shipped, or to the most convenient port of entry in the United States, or to a port agreed to by the seaman."

"SEC. 19. That section 4596 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4596. The words "domestic trade" in this section shall include trade between ports of the United States and trade between ports of the United States and the Dominion of Canada, Newfoundland, the West Indies, and Mexico. The words "foreign trade" shall include trade between ports of the United States and foreign ports, except as above specified, and trade between Atlantic and Pacific ports of the United States. Whenever any seaman who has been lawfully engaged or any apprentice to the sea service commits any of the following offenses he shall be punishable as follows:

"First. For desertion, if the offense occur at a port of the United States, or a foreign port in the domestic trade, by forfeiture of all or any part of the clothes or effects he leaves on board and of all or any part of the wages or emoluments which he has then earned. If the offense occur at a foreign port in the foreign trade, by forfeiture of all or any part of the clothes or effects he leaves on board and of all or any part of the wages or emoluments which he has then earned; and also, at the discretion of the court, by imprisonment for not more than one month.

"Second. For neglecting or refusing, without reasonable cause, to join his vessel or to proceed to sea in his vessel, or for absence without

leave at any time within twenty-four hours of the vessel's sailing from any port, either at the commencement or during the progress of any voyage, or for absence at any time without leave and without sufficient reason from his vessel or from his duty, not amounting to desertion or not treated as such by the master, if the offense occur at a port of the United States or a foreign port in the domestic trade, by a forfeiture from his wages of not more than two days' pay, or sufficient to defray any expenses which have been properly incurred in hiring a substitute; or if the offense occur at a foreign port, in the foreign trade, by a forfeiture from his wages of not more than two days' pay, or, at the discretion of the court, by imprisonment for not more than one month.

"Third. For quitting the vessel, in whatever trade engaged, at a foreign or domestic port, without leave after her arrival at her port of delivery and before she is placed in security, by forfeiture from his wages of not more than one month's pay.

"Fourth. For willful disobedience to any lawful command at sea, by being, at the option of the master, placed in irons until such disobedience shall cease, and upon arrival in port, if of the United States, by forfeiture from his wages of not more than four days' pay, or upon arrival in a foreign port by forfeiture from his wages of not more than four days' pay, or, at the discretion of the court, by imprisonment for not more than one month.

"Fifth. For continued willful disobedience to lawful command or continued willful neglect of duty at sea by being, at the option of the master, placed in irons, on bread and water, with full rations every fifth day, until such disobedience shall cease, and upon arrival in port, if of the United States, by forfeiture, for every twenty-four hours' continuance of such disobedience or neglect, of either a sum of not more than twelve days' pay or sufficient to defray any expenses which have been properly incurred in hiring a substitute, or upon arrival in a foreign port, in addition to the above penalty, by imprisonment for not more than three months, at the discretion of the court.

"Sixth. For assaulting any master or mate, in whatever trade engaged, by imprisonment for not more than two years.

"Seventh. For willfully damaging the vessel, or embezzling or willfully damaging any of the stores or cargo, in whatever trade engaged, by forfeiture out of his wages of a sum equal in amount to the loss thereby sustained, and also, at the discretion of the court, by imprisonment for not more than twelve months.

"Eighth. For any act of smuggling for which he is convicted, and whereby loss or damage is occasioned to the master or owner, in whatever trade engaged, he shall be liable to pay such master or owner such a sum as is sufficient to reimburse the master or owner for such loss or damage; and the whole or any part of his wages may be retained in satisfaction or on account of such liability; and he shall be liable to imprisonment for a period of not more than twelve months."

"SEC. 20. That section 4597 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4597. Upon the commission of any of the offenses enumerated in the preceding section an entry thereof shall be made in the official log book on the day on which the offense was committed, and shall be signed by the master and

ARTICLES.		Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Water.....	quarts.	4	4	4	4	4	4	4
Biscuit.....	pound.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Beef, salt.....	pound.	...	...	1 $\frac{1}{2}$	...	1 $\frac{1}{2}$	...	1 $\frac{1}{2}$
Pork, salt.....	pound.	...	1	...	1	...	1	...
Flour.....	pound.	$\frac{1}{2}$	...	...	...	$\frac{1}{2}$	...	...
Canned meat.....	pound.	1	...	...	1	...	...	...
Fresh bread.....	pound.	...	...	1 $\frac{1}{2}$ pound daily.			...	...
Fish, dry, preserved, or fresh.....	pound.	...	...	...	...	...	1	...
Potatoes or yams.....	pound.	1	1	1	1	1	1	1
Canned tomatoes.....	pound.	$\frac{1}{2}$	...	...	...	...	$\frac{1}{2}$	...
Peas.....	pint.	...	...	$\frac{1}{2}$	...	...	$\frac{1}{2}$	...
Beans.....	pint.	...	$\frac{1}{2}$	...	$\frac{1}{2}$	...	$\frac{1}{2}$	...
Rice.....	pint.	...	$\frac{1}{2}$	...	...	...	$\frac{1}{2}$	$\frac{1}{2}$
Coffee (green berry).....	ounce.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Tea.....	ounce.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Sugar.....	ounces.	3	3	3	3	3	3	3
Molasses.....	pint.	$\frac{1}{2}$	...	$\frac{1}{2}$	...	$\frac{1}{2}$	...	...
Dried fruit.....	ounces.	3	...	3	...	3	...	...
Pickles.....	pint.	...	$\frac{1}{2}$	...	$\frac{1}{2}$	...	$\frac{1}{2}$	...
Vinegar.....	pint.	...	...	$\frac{1}{2}$	...	...	...	$\frac{1}{2}$
Corn meal.....	ounces.	4	...	...	...	4	...	...
Onions.....	ounces.	4	...	...	...	4	...	4
Lard.....	ounce.	1	1	1	1	1	1	1
Butter.....	ounce.	1	1	1	1	1	1	1
Mustard, pepper, and salt sufficient for seasoning.								

by the mate or one of the crew; and the offender, if still in the vessel, shall, before her next arrival at any port, or, if she is at the time in port, before her departure therefrom, be furnished with a copy of such entry, and have the same read over distinctly and audibly to him, and may thereupon make such a reply thereto as he thinks fit; and a statement that a copy of the entry has been so furnished, or the same has been so read over, together with his reply, if any, made by the offender, shall likewise be entered and signed in the same manner. In any subsequent legal proceedings the entries hereinbefore required shall, if practicable, be produced or proved, and in default of such production or proof the court hearing the case may, at its discretion, refuse to receive evidence of the offense.

"SEC. 21. That section 4600 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4600. It shall be the duty of all consular officers to reclaim deserters, discountenance insubordination by every means in their power, and, where the local authorities can be usefully employed for that purpose, to lend their aid and use their exertions to that end in the most effectual manner. In all cases where seamen or officers are accused the consular officer shall inquire into the facts and proceed as provided in section 4583 of the Revised Statutes; and the officer discharging such seamen shall enter upon the crew list and shipping articles and official log the cause of discharge and the particulars in which the cruel or unusual treatment consisted, and subscribe his name thereto officially. He shall read the entry made in the official log to the master, and his reply thereto, if any, shall likewise be entered and subscribed in the same manner."

"SEC. 22. That section 4611 of the Revised Statutes be, and is hereby, amended to read as follows:

"SEC. 4611. Flogging and all other forms of corporal punishment are hereby prohibited on board any vessel, and no form of corporal punishment on board any vessel shall be deemed justifiable, and any master or other officer thereof who shall violate the aforesaid provisions of this section or either thereof shall be deemed guilty of a misdemeanor, punishable by imprisonment not less than three months or more than two years. Whenever any officer other than the master of such vessel shall violate any provision

of this section, it shall be the duty of such master to surrender such officer to the proper authorities as soon as practicable. Any failure upon the part of such master to comply herewith, which failure shall result in the escape of such officer, shall render said master liable in damages to the person illegally punished by such officer."

"SEC. 23. That section 4612 of the Revised Statutes is hereby amended by striking out the scale of provisions and substitutes in the table [above], and in place thereof inserting the following scale of provisions and substitutes to be allowed and served out to the crew during the voyage:

"SUBSTITUTES.

"One pound of flour daily may be substituted for the daily ration of biscuit or fresh bread; 2 ounces of desiccated vegetables for 1 pound of potatoes or yams; 6 ounces of hominy, oatmeal, or cracked wheat, or 2 ounces of tapioca, for 6 ounces of rice; 6 ounces of canned vegetables for $\frac{1}{2}$ pound of canned tomatoes; $\frac{1}{2}$ ounce of tea for $\frac{1}{2}$ ounce of coffee; $\frac{1}{2}$ ounce of coffee for $\frac{1}{2}$ ounce of tea; 6 ounces of canned fruit for 3 ounces of dried fruit; $\frac{1}{2}$ ounce of lime juice for the daily ration of vinegar; 4 ounces of oatmeal or cracked wheat for $\frac{1}{2}$ pint of corn meal; 2 ounces of pickled onions for 4 ounces of fresh onions.

"When the vessel is in port and it is possible to obtain the same, 1 $\frac{1}{2}$ pound of fresh meat shall be substituted for the daily rations of salt and canned meat; $\frac{1}{2}$ pound of green cabbage for one ration of canned tomatoes; $\frac{1}{2}$ pound of fresh fruit for one ration of dried fruit. Fresh fruit and vegetables shall be served while in port if obtainable. The seamen shall have the option of accepting the fare the master may provide, but the right at any time to demand the foregoing scale of provisions.

"The foregoing scale of provisions shall be inserted in every article of agreement, and shall not be reduced by any contract, except as above, and a copy of the same shall be posted in a conspicuous place in the galley and in the fore-castle of each vessel."

"SEC. 24. That section 10 of chapter 121 of the laws of 1884, as amended by section 3 of chapter 421 of the laws of 1886 be, and is hereby, amended to read as follows:

"SEC. 10. (a) That it shall be, and is hereby, made unlawful in any case to pay any seaman wages in advance of the time when he has actual-

ly earned the same, or to pay such advance wages to any other person. Any person paying such advance wages shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not less than four times the amount of the wages so advanced, and may also be imprisoned for a period not exceeding six months, at the discretion of the court. The payment of such advance wages shall in no case, excepting as herein provided, absolve the vessel or the master or owner thereof from full payment of wages after the same shall have been actually earned, and shall be no defense to a libel, suit, or action for the recovery of such wages. If any person shall demand or receive, either directly or indirectly, from any seaman or other person seeking employment as seaman, or from any person on his behalf, any remuneration whatever for providing him with employment, he shall for every such offense be liable to a penalty of not more than \$100.

“(b) That it shall be lawful for any seaman to stipulate in his shipping agreement for an allotment of any portion of the wages which he may earn to his grandparents, parents, wife, sister, or children. But no allotment whatever shall be allowed in the trade between the ports of the United States (except as provided in subdivision c of this section) or in trade between ports of the United States and the Dominion of Canada, Newfoundland, the West Indies, and Mexico.

“(c) That it shall be lawful for any seaman engaged in a vessel bound from a port on the Atlantic to a port on the Pacific, or *vice versa*, or in a vessel engaged in foreign trade, except trade between the United States and the Dominion of Canada or Newfoundland or the West Indies or the republic of Mexico, to stipulate in his shipping agreement for an allotment of an amount, to be fixed by regulation of the commissioner of navigation, with the approval of the Secretary of the Treasury, not exceeding one month's wages, to an original creditor in liquidation of any just debt for board or clothing which he may have contracted prior to engagement.

“(d) That no allotment note shall be valid unless signed by and approved by the shipping commissioner. It shall be the duty of said commissioner to examine such allotments and the parties to them and enforce compliance with the law. All stipulations for the allotment of any part of the wages of a seaman during his absence which are made at the commencement of the voyage shall be inserted in the agreement, and shall state the amounts and times of the payments to be made and the persons to whom the payments are to be made.

“(e) That no allotment except as provided for in this section shall be lawful. Any person who shall falsely claim to be such relation as above described of a seaman under this section or shall make a false statement of the nature or amount of any debt claimed to be due from any seaman under this section shall for every such offense be punishable by a fine not exceeding \$500 or imprisonment not exceeding six months, at the discretion of the court.

“(f) That this section shall apply as well to foreign vessels as to vessels of the United States; and any master, owner, consignee, or agent of any foreign vessel who has violated its provisions shall be liable to the same penalty that the master, owner, or agent of a vessel of the United States would be for a similar violation: *Provided*, That treaties in force between the United States and foreign nations do not conflict.

“(g) That under the direction of the Secretary of the Treasury the Commissioner of Navigation shall make regulations to carry out this section.”

“SEC. 25. That section 3 of chapter 421 of the laws of 1886, approved June 19, 1886; sections 4531, 4532, 4533, 4534, 4598, 4599, 4601, and 4609, of the Revised Statutes, and so much of chapter 97 of the laws of 1895 as relates to allotment, and subdivision 8 of section 4511 of the Revised Statutes, in so far as the same relates to the domestic trade as defined in section 19 of this act, and that section 3 of an act entitled ‘An Act to amend the laws relating to navigation, and for other purposes,’ approved April 4, 1888, chapter 61, page 80, Statutes Fiftieth Congress, first session, are hereby repealed.

“SEC. 26. That this act shall take effect sixty days after its approval, and shall apply to all vessels not herein specifically exempted; but sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 23, and 24 shall not apply to fishing or whaling vessels or yachts.”

Reimbursement of States.—The following act was passed and approved March 3, 1899, amending the act of July 8, 1898, to reimburse governors of States and Territories for expenses incurred by them in aiding the United States to raise, organize, and equip the volunteer army in the war with Spain:

“*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the act entitled ‘An Act to reimburse the governors of States and Territories for expenses incurred by them in aiding the United States to raise and organize and supply and equip the volunteer army of the United States in the existing war with Spain,’ approved July 8, 1898, be so amended that the Secretary of the Treasury shall be, and is hereby, authorized to allow, in the settlement of the claims of the governors of States and Territories for reimbursement under the provisions of the said act, expenses incurred after as well as before July 8, 1898: *Provided*, That no reimbursement shall be made for service of members of the National Guard, or organized militia, or naval reserves of any State or Territory who were not accepted into the volunteer army of the United States, and no reimbursement shall be allowed for payments made to any person in excess of the pay and allowances authorized by the laws of the State or Territory for the grade in which he was accepted into the volunteer army of the United States. That the compensation allowed by the laws of the States and Territories to officers and men of the National Guard, or militia, or naval reserves of said States and Territories shall be allowed to the States and Territories, or the governors of the States and Territories, as pay for such officers and men of said National Guard, or militia, or naval reserves as appeared and remained at the place of muster, and who were afterward received into the service of the United States for the period between the date of assembly at the rendezvous and the date they were mustered into the United States service: *Provided, however*, That in all States and Territories where no laws exist for the payment of the officers and men of the National Guard, or militia, or naval reserves, there shall be allowed to said States and Territories, or the governors of said States and Territories, for the officers the same pay as allowed officers in the regular army holding the same rank, and for the men \$1 per day, for such officers and men as appeared and remained at the place of muster and were afterward received into the service of the United

States for the period between the date of assembly at the rendezvous and the date they were mustered into the service of the United States: *Provided further*, That for all officers and men of the National Guard, or militia, or naval reserves of the States and Territories, who appeared at the rendezvous for muster, and were rejected by the medical examiner or mustering officer, pay shall be allowed for the same to the States and Territories or the governors of States and Territories, at the several rates as fixed as aforesaid from the date of assembly to the date of their rejection: *Provided further*, That where States and Territories have not paid amounts to the officers and men or any part thereof the pay allowed them by this act, the same shall be paid by the States and Territories direct to the officers and men, and no money allowed by this act for officers and men shall be covered into the treasury of the State or Territory.

"SEC. 2. That under the appropriation made by said act the Secretary of the Treasury is hereby authorized to reimburse the governor of any State or Territory for reasonable expenses incurred by him for the actual transportation of the members of organized militia, or National Guard, or naval reserves of his State from the place of company, battalion, or regimental rendezvous to the State rendezvous, or place designated for examination and acceptance of the members of such organization into the volunteer army of the United States, and the actual transportation from such State rendezvous, or such place designated for examination and acceptance, to their respective company, battalion, or regimental rendezvous of such men as were rejected by the medical examiner or mustering officer: *Provided*, That no reimbursement shall be made for the transportation of any man who did not present himself for enrollment in the volunteer army of the United States as provided by law: *And provided further*, That the provisions of this section shall apply also to payments made by the governor of any State or Territory for the actual transportation of individual volunteers who presented themselves for enrollment in the volunteer army of the United States and who were rejected by the medical examiner or mustering officer.

"SEC. 3. That nothing in said act of July 8, 1898, shall be so construed as to prohibit the reimbursement of the governor of any State or Territory for reasonable expenses incurred for the subsistence of the members of any organization of the organized militia or National Guard, or naval reserves of his State or Territory after having been called out by the governor on or after April 25, 1898: *Provided*, That such organizations shall afterward have been accepted into the volunteer army of the United States.

"SEC. 4. That the expenses incurred by the governors of States in carrying out the provisions of this act shall be paid to them, notwithstanding any unsettled accounts, claims, or indebtedness of the United States against their States, and without prejudice to such unsettled accounts: *Provided*, That when such unsettled account is caused by a default in payment of principal or interest on any bonds or stock issued or guaranteed by any State, the ownership of which is vested in the United States, the Secretary of the Treasury be, and he is hereby, authorized and directed to institute any act or proceeding which he may consider advisable against such State or its representatives to secure the payment of the principal and interest of said bonds or stocks: *And provided further*, That where the governor

of any State or Territory, or any officer of the army detailed as mustering officer of volunteers, or any commander of a company or companies, or troop or troops, or battery or battalion, or regiment or brigade has purchased or authorized the purchase of supplies or equipments, or incurred any necessary expense for the comfort of the men in camp or rendezvous, and said supplies were used and equipments were subsequently taken into the United States service by said volunteers, and no receipts given to such military officer, the certificate to that effect of the governor of the State or Territory to which the volunteers belonged, shall be held sufficient to authorize the settlement and payment of such account on investigation, if the Treasury Department shall be satisfied of the fact of such purchase of such equipment and supplies, or that such necessary expenses were incurred and such use of such supplies, or such taking of such equipments into the United States service, and the voucher or vouchers of said officers be produced by said governor.

"SEC. 5. That the Secretary of the Treasury be, and is hereby, authorized to pay, out of any money in the Treasury not otherwise appropriated, the just and proper account or claim of any railroad, transportation company, or person for transportation of men or troops from place of enrollment to point of rendezvous, furnished at the request of the quartermaster general of the army or his agents, or at the request of any United States mustering officer or other officer authorized by the Secretary of War to enroll, muster, or mobilize volunteers for the war with Spain; and also to pay such just and proper accounts as may be presented for transportation back from point of rendezvous to place of enrollment of men who volunteered and were rejected by the medical examiner or mustering officer: *Provided*, That the amount allowed and paid for such transportation shall not be in excess of the rates charged for transporting troops of the United States under like circumstances.

"All claims under the provision of this act must be filed in the office of the auditor for the War Department, and must be supported by proper vouchers or other conclusive evidence of interest.

"SEC. 6. That all claims for reimbursement under this act or the act of July 8, 1898, shall be presented in itemized form to the Treasury Department on or before Jan. 1, 1902, or be forever barred."

Mount Rainier Park.—The following act was passed, creating a new national park:

"*Be it enacted, etc.*, That all those certain tracts, pieces, or parcels of land lying and being in the State of Washington, and within the boundaries particularly described as follows, to wit: Beginning at a point 3 miles east of the northeast corner of township No. 17 north, of range 6 east of the Willamette meridian; thence south through the central parts of townships Nos. 17, 16, and 15 north, of range 7 east of the Willamette meridian, 18 miles more or less, subject to the proper easterly or westerly offsets, to a point 3 miles east of the northeast corner of township No. 14 north, of range 6 east of the Willamette meridian; thence east on the township line between townships Nos. 14 and 15 north, 18 miles more or less, to a point 3 miles west of the northeast corner of township 14 north, of range 10 east of the Willamette meridian; thence northerly, subject to the proper easterly or westerly offsets, 18 miles more or less, to a point 3 miles west of the northeast corner of

township No. 17 north, of range 10 east of the Willamette meridian (but in locating said easterly boundary, wherever the summit of the Cascade mountains is sharply and well defined, the said line shall follow the said summit, where the said summit line bears west of the easterly line as herein determined); thence westerly along the township line between said townships Nos. 17 and 18 to the place of beginning, the same being a portion of the lands which were reserved from entry or settlement and set aside as a public reservation by proclamation of the President on the twentieth day of February, in the year of our Lord 1893, and of the independence of the United States the one hundred and seventeenth, are hereby dedicated and set apart as a public park, to be known and designated as the Mount Rainier National Park, for the benefit and enjoyment of the people; and all persons who shall locate or settle upon or occupy the same, or any part thereof, except as hereafter provided, shall be considered trespassers and be removed therefrom.

"SEC. 2. That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be to make and publish, as soon as practicable, such rules and regulations as he may deem necessary or proper for the care and management of the same. Such regulations shall provide for the preservation from injury or spoliation of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition. The Secretary may, in his discretion, grant parcels of ground at such places in said park as shall require the erection of buildings for the accommodation of visitors; all of the proceeds of said leases, and all other revenues that may be derived from any source connected with said park, to be expended under his direction in the management of the same, and the construction of roads and bridle paths therein.

"And through the lands of the Pacific Forest Reserve adjoining said park rights of way are hereby granted, under such restrictions and regulations as the Secretary of the Interior may establish, to any railway or tramway company or companies, through the lands of said Pacific Forest Reserve, and also into said park hereby created, for the purpose of building, constructing, and operating a railway, constructing and operating a railway or tramway line or lines, through said lands, also into said park. He shall provide against the wanton destruction of the fish and game found within said park, and against their capture or destruction for the purposes of merchandise or profit. He shall also cause all persons trespassing upon the same after the passage of this act to be removed therefrom, and generally shall be authorized to take all such measures as shall be necessary to fully carry out the objects and purposes of this act.

"SEC. 3. That upon execution and filing with the Secretary of the Interior, by the Northern Pacific Railroad Company, of proper deed releasing and conveying to the United States the lands in the reservation hereby created, also the lands in the Pacific Forest Reserve which have been heretofore granted by the United States to said company, whether surveyed or unsurveyed, and which lie opposite said company's constructed road, said company is hereby authorized to select an equal quantity of nonmineral public lands, so classified as nonmineral at the time of actual Government survey, which has been or shall be made, of the United States not reserved and to which no adverse right or claim shall have at-

tached or have been initiated at the time of the making of such selection, lying within any State into or through which the railroad of said Northern Pacific Railroad Company runs, to the extent of the lands so relinquished and released to the United States.

"*Provided*, That any settlers on lands in said national park may relinquish their rights thereto and take other public lands in lieu thereof, to the same extent and under the same limitations and conditions as are provided by law for forest reserves and national parks.

"SEC. 4. That upon the filing by the said railroad company at the local land office of the land district in which any tract of land selected and the payment of the fees prescribed by law in analogous cases, and the approval of the Secretary of the Interior, he shall cause to be executed, in due form of law, and deliver to said company, a patent of the United States conveying to it the lands so selected. In case the tract so selected shall at the time of selection be unsurveyed, the list filed by the company at the local land office shall describe such tract in such manner as to designate the same with a reasonable degree of certainty; and within the period of three months after the lands including such tract shall have been surveyed and the plats thereof filed by said local land office, a new selection list shall be filed by said company, describing such tract according to such survey; and in case such tract, as originally selected and described in the list filed in the local land office, shall not precisely conform with the lines of the official survey, the said company shall be permitted to describe such tract anew, so as to secure such conformity.

"SEC. 5. That the mineral-land laws of the United States are hereby extended to the lands lying within the said reserve and said park."

Miscellaneous.—Apart from legislation for the District of Columbia and the usual multitude of private acts, the following measures were also passed:

For the relief of certain homestead settlers in Florida.

To change proceedings for admission to the Government Hospital for the Insane in certain cases and for other purposes.

Authorizing the President to appoint additional cadets at large to the United States Naval Academy.

To ratify agreements with the Indians of Lower Brule and Rosebud reservations in South Dakota, and making appropriations to carry the same into effect.

To amend section 27 of the Revised Statutes so as to allow the use of voting machines in congressional elections when authorized by a State law.

Reviving the grade of admiral in the navy.

To amend section 25 of the act of June 13, 1898, by adding the clause: "Whenever any bond or note shall be secured by a mortgage, but one stamp shall be required to be placed upon such papers: *Provided*, That the stamp tax placed thereon shall be the highest rate required for said instruments, or either of them."

To give preference right to settlers in entry of lands in Greer County, Oklahoma.

To limit the suspension of certain provisions of law relating to the War Department until March 1, 1900.

Establishing a criminal code for Alaska.

For public buildings at Abilene, Texas; Altoona, Pa.; Annapolis, Md.; Anniston, Ala.; Baltimore, Md.; Beaumont, Texas; Blair, Neb.; Bristol, Tenn.; Brooklyn, N. Y.; Brunswick, Ga.;

Butte City, Mont.; Canton, Ohio; Cleveland, Ohio; Clinton, Iowa; Dubuque, Iowa; Columbus, Ga.; Creston, Iowa; Eau Claire, Wis.; Elgin, Ill.; Elizabeth City, N. C.; Elmira, N. Y.; Fergus Falls, Minn.; Fitchburg, Mass.; Freeport, Ill.; Hastings, Neb.; Hot Springs, Ark.; Indianapolis, Ind.; Jackson, Miss.; Jamestown, N. Y.; Janesville, Wis.; Joliet, Ill.; Joplin, Mo.; Kansas City, Kan.; Lawrence, Mass.; Leadville, Col.; Lockport, N. Y.; Los Angeles, Cal.; Macon, Ga.; Menominee, Mich.; Minneapolis, Minn.; Monmouth, Ill.; New Brunswick, N. J.; New Iberia, La.; Newport News, Va.; Newport, Vt.; New York, N. Y.; Norfolk, Neb.; Norwich, Conn.; Oakland, Cal.; Omaha, Neb.; Oskaloosa, Iowa; Rome, N. Y.; St. Cloud, Minn.; Salem, Ore.; Salt Lake City, Utah; Seattle, Wash.; Springfield, Mass.; Stockton, Cal.; Streator, Ill.; Tampa, Fla.; Washington, D. C.; Wilkesbarre, Pa.; Winston, N. C.

Authorizing bridges across Arkansas and other rivers in Arkansas; Conecuh river, Escambia County, Alabama; Flint river, Ga.; Lake Champlain; Mississippi river; Missouri river at Lexington, at Oacoma, at Yankton; Monongahela river at Morgantown; Savannah river at Hutchinson's island; Tennessee river at Sheffield; Columbia river, Oregon; Corpus Christi channel, Texas; Missouri river, Boonville.

Granting right of way to Saginaw Southern Railroad through San Francisco Mountains Forest Reserve; to Little River Valley Railway through Choctaw and Chickasaw nations, Indian Territory, and through Ponca, Otoe, and Missouri reservations, Oklahoma, for telephone lines; to St. Louis, Oklahoma and Southern Railroad through Indian and Oklahoma Territories; to Kansas, Oklahoma, Central and Southwestern through Indian Territory; to Clearwater Valley Railroad Company through Nez Perces Indian lands; to Pasadena and Mount Wilson Railway through San Gabriel Forest Reserve; to Pensacola and Northwestern Railroad Company through United States military and naval reservations near Pensacola, Fla.; to Arkansas Northwestern Railway Company through Indian Territory; to Fort Smith and Western Railroad Company through Choctaw and Creek nations; to provide for the acquiring by railroads of right of way through Indian reservations, lands, and allotments.

Amending the law relating to the bonds of United States consuls.

Granting extra pay to officers and enlisted men of the United States volunteers.

Concerning sailing vessels of over 700 tons.

For leasing certain portions of forest reserves near medicinal or mineral springs.

Granting extra pay to workmen in navy yards.

For a military park at Vicksburg.

Appropriations.—Mr. Cannon, of Illinois, said in explanation of the appropriations made by the Fifty-fifth Congress:

"The appropriations made at the last session of the Fifty-fifth Congress will amount to \$673,058,400.73, showing an apparent reduction of \$219,573,214.82 below the appropriations made at the preceding session. This reduction is attributable to the necessarily large appropriations made at the session which closed in July last—the second session of the Fifty-fifth Congress—for expenses of the war with Spain. The entire appropriations made by the Fifty-fifth Congress aggregate \$1,566,890,016.28, of which amount the sum of \$482,562,083.47 is directly chargeable or incident to the war with Spain. Deducting the latter from the former sum, the remainder, \$1,084,327,932.81, represents the ordinary appropriations

made during the whole Congress for the normal requirements of the Government. The appropriations made by the preceding Congress, the Fifty-fourth, which adjourned March 3, 1897, amounted to \$1,044,580,273.87, or only \$39,747,658.94 less than the ordinary appropriations of this Congress after deducting the sums required for the war."

The appropriations for the fiscal year 1899-1900 were in detail as follow: Agriculture, \$3,726,022; army, \$80,430,194.42; diplomatic and consular, \$1,714,533.76; District of Columbia, \$6,834,535.77; fortification, \$4,909,902; Indian, \$7,604,755.81; legislative, etc., \$23,405,740.79; Military Academy, \$575,774.47; navy, \$48,100,094.58; pension, \$145,233,830; post office, \$105,634,183.75; river and harbor, \$14,973,877.94; sundry civil, \$48,498,722.58; total, \$491,642,167.87; deficiency for war expenses, etc., \$119,640; urgent deficiency, House of Representatives, etc., \$31,000; deficiency, 1898 and prior years, \$24,687,372.86; total, \$516,480,180.73; miscellaneous, \$28,500,000; total, regular annual appropriations, \$544,980,180.73; permanent annual appropriations, \$128,678,220; grand total, regular and permanent annual appropriations, \$673,658,400.73.

CONNECTICUT, a New England State, one of the original thirteen, ratified the national Constitution Jan. 9, 1788; area, 4,900 square miles. The population, according to each decennial census, was 237,946 in 1790; 251,002 in 1800; 261,942 in 1810; 275,148 in 1820; 297,675 in 1830; 309,978 in 1840; 370,792 in 1850; 460,147 in 1860; 537,454 in 1870; 622,700 in 1880; and 746,258 in 1890. Capital, Hartford.

Government.—The following were the State officers during the year: Governor, George E. Lounsbury; Lieutenant Governor, Lyman A. Mills; Secretary of State, Huber Clark; Treasurer, Charles S. Mersick; Comptroller, Thompson S. Grant; Attorney-General, Charles Phelps; Adjutant General, Louis N. Van Keuren; Insurance Commissioner, Edwin L. Scofield—all Republicans; Supreme Court of Errors, Chief Justice, Charles B. Andrews, Republican; Associate Justices, David Torrance, Republican; Frederic B. Hall, Republican; Simeon E. Baldwin, Democrat; and William Hamersley, Democrat; Clerk, George A. Conant.

Finances.—The receipts from all sources for the civil list funds in the fiscal year ended Sept. 30, 1899 (not including the balance of \$463,891.14 in the treasury Oct. 1, 1898), were \$2,749,273.20, an increase over the previous year of \$136,888.05.

The expenditures during the same period were \$2,530,280.33, an increase of \$258,758.82, leaving a balance in the treasury to the credit of the civil list funds, Sept. 30, 1899, of \$682,884.01.

The excess of receipts over expenditures during the year was \$218,992.87.

The following is the official statement in detail, issued from the Comptroller's office, of receipts and expenditures for the fiscal year ending Sept. 30, 1899:

Receipts.—Civil-list account, balance on hand, Oct. 1, 1898, \$463,891.14; other receipts from all sources during the year, \$2,749,273.20; total, \$3,213,164.34. Specific receipts: Interest of school fund, transferred, \$113,722.79; Agricultural and Mechanical College fund, transferred, \$20,829.47; Woodbury Bank, balance transferred, \$118.60; Litchfield Bank, balance transferred, \$145.30; avails of courts, clerks' fees (three months), \$1,507.31; commissioners of pharmacy, \$1,818; commissioners of shell fisheries, \$9,319.76; Comptroller (statutes sold), \$150; corporate franchise tax, \$4,700; tax on express companies, \$9,958.36;

fees from executive secretary, \$852.50; fees from Secretary of State, \$2,113.34; Greenwich Loan, Trust and Deposit Company (franchise tax), \$853.20; inheritance tax, \$115,195.30; receipts of Insurance Commissioner, \$77,946.98; interest account, \$34,566.53; tax on investments, \$92,425.12; itinerant venders' license fees, \$75; tax on Meriden Trust and Safe Deposit Company, \$275; military commutation tax, \$150,598.84; miscellaneous receipts, \$17,544.88; tax on mutual fire insurance companies, \$11,036.38; tax on mutual life insurance companies, \$283,817.12; national aid to State homes for disabled volunteer soldiers, \$42,480; nonresident stock tax, \$167,537.27; tax on steam railroads, \$965,502.92; tax on street railroads, \$138,502.78; tax on rolling-stock companies, \$159.20; salaries of Bank Commissioners, \$6,515.05; salaries of Railroad Commissioners, \$11,623.68; salary of Building and Loan Commissioner, \$1,680.61; savings banks' tax, \$392,782.98; State Librarian (atlases sold), \$100; telegraph and telephone company's tax, \$14,026.65; charter fees, \$28,846; joint-stock capital tax, \$35.15; from forfeited bonds, \$19,760.79; from avails of courts, \$10,150.34.

Expenditures.—For payments from the treasury from Oct. 1, 1898, to Sept. 30, 1899, for the current expenses of the government, under the following heads: Sessions of the General Assembly, \$148,355.08; salaries and expenses in executive offices, \$38,417.23; judicial expenses, \$339,424.55; board of prisoners in county jails, \$112,682.62; State Capitol and grounds, \$45,294.16; contingent expenses, \$17,399.32; State Board of Education, \$28,865.88; State normal schools, \$68,747.97; common schools, \$440,415.93; State Library, \$3,569.61; State Prison, \$64,917.30; Connecticut School for Boys, \$68,195.10; Connecticut Industrial School for Girls, \$43,240.82; State paupers, \$4,361.26; humane institutions, \$314,943.58; sick and wounded soldiers, \$75,246; deceased soldiers, \$10,556.50; agricultural affairs, \$48,767.14; National Guard, \$215,330.32; Governor's Guard, \$7,683.93; printing and circulating public documents, \$43,973.92; soldiers' children, \$2,734.36; Fish and Game Commission, \$5,452.20; Shellfish Commission, \$10,777.01; State Board of Health, \$7,307.50; Railroad Commissioners, \$11,606.20; Bank Commissioners, \$6,041.55; Insurance Commissioner, \$32,459.31; State Board of Charities, \$4,199.94; taxes refunded, \$2,449.98; Pharmacy Commission, \$1,291.37; special commissions, \$8,454.20; Bureau of Labor Statistics, \$7,213.41; Inspector of Factories, \$4,338.02; separating grade crossings, \$20,736.82; Connecticut River Bridge and Highway District Commission, \$16,179.61; county health officers, \$6,519.89; School Fund Commissioner, \$13,139.85; Highway Commissioner, \$117,973.56; Building and Loan Commissioner, \$2,873.94; interest on State bonds, \$104,700; interest on Agricultural College fund, \$115.75; interest on town deposit fund, \$274.54; principal of the school fund, \$1,081.74; interest of school fund, \$1,861.77; James Root prison fund, \$141.81.

Grand List.—The grand list of the State, issued from the Comptroller's office, for October, 1898, amounted to \$552,887,762, an increase of \$18,422,505 from the amount of the preceding year. Summarized by counties, the results are as follow: Hartford, \$131,759,101; New Haven, \$162,297,142; New London, \$43,661,344; Fairfield, \$130,235,714; Windham, \$19,701,092; Litchfield, \$32,249,129; Middlesex, \$19,480,281; Tolland, \$13,503,959. The amount given above (\$552,887,762) includes the total list of taxable property in each town of the State as corrected by the Board of Equalization.

The funded debt of the State is \$3,240,100. Of this indebtedness, bonds to the amount of a million and a half of dollars, bearing interest at the rate of 3½ per cent., are due Jan. 1, 1903.

State Banks.—The State banks have the same capital as a year ago, and there is an increase of \$229,417 in their deposits. Their surplus and profit and loss accounts are less by \$15,595.

In their annual report for the year ending Oct. 1, 1898, the Bank Commissioners made an excellent showing for the savings banks of the State. The assets have increased during the year from \$166,175,213 to \$173,025,546, and, while the loans on real estate have increased over \$2,000,000, those made on collateral and personal security have only been decreased \$868,000. Loans of this class belong more especially to banks of discount. The deposits aggregate \$163,482,498.52, an increase of \$7,512,700.57 for the year. This is \$1,039,458.48 more than the increase in 1897. The number of depositors increased from 366,661 to 375,810, and the average amount due each depositor increased from \$425.37 to \$435.01. The largest amount due a single depositor is \$54,507.74. There are 271 depositors having more than \$10,000 each; 15,142 depositors having more than \$2,000 and not more than \$10,000; 33,928 have between \$1,000 and \$2,000; and 326,469 of the total of 375,810 have less than \$1,000 on deposit.

With capital remaining the same, the trust companies have an increase in deposits of \$485,161, and an increase in the surplus and profit and loss accounts of \$49,744.

Insurance.—The domestic associations are the same that were engaged in business at the close of the last fiscal year. During the past year four foreign associations withdrew from the State.

The total assets of the domestic associations on Sept. 30, 1898, were \$3,637,828.12, an increase over the preceding year of \$383,892.93; foreign associations, total assets, \$4,313,015.36, an increase of \$472,020.72. The mortgage loans of domestic associations increased \$302,009.55; loans on shares, \$30,317.75; real estate, \$41,457.30; stocks, bonds, and other securities, \$18,270.22; and cash decreased, \$13,177.22. The mortgage loans of foreign associations increased \$12,223.17; loans on shares, \$2,938.45; real estate, \$351,681.37; stocks, bonds, and other securities, \$61,450; and cash decreased, \$53,324.63. The liabilities in installments paid and earnings credited of domestic associations show an increase of \$339,231.64.

In 1898 19 fire insurance companies were admitted to this State, with a total capitalization of \$3,950,000. Ten fire insurance companies have withdrawn from the State since Jan. 1, 1898. Their total capitalization is \$2,050,000. The number of companies doing business in this State is 151.

The total capitalization of 150 marine companies is reported to be \$54,913,875. Their assets Dec. 31, 1897, were \$275,886,642.42.

Education.—The public schools for the year cost nearly \$3,000,000. Of this amount, a little more than \$2,000,000 was for running expenses—that is, for teachers' wages, fuel, and incidentals. The whole cost was equal to a tax of 5½ mills on all the grand list of the State.

The school fund amounts to \$2,014,680.67. This is a gain of more than \$6,000 over two years ago. Foreclosures of mortgages have resulted in small losses, and sales of bank stocks in larger apparent gains. The net earnings of the fund for the last year were nearly \$110,000, an income of about 5½ per cent.

The appeal of Yale University from the action of the New Haven assessors in adding a consider-

able quantity of property to its tax list was decided in favor of the university.

Steam Railroads.—Of the 50,000,000 passengers transported over these roads in the year not one was killed, and only 12 were injured. There was a small decrease in the number of passengers and in the earnings of this part of the business, but this decrease was more than offset by increase in freight and in the revenue derived therefrom. The companies have a capital of more than \$99,000,000, and during the past years the dividends to their stockholders have been nearly \$5,000,000. Their taxes paid to the State in 1898 were \$910,137.50, or more than one third of its revenue from all sources.

Street Railways.—The 31 street-railway companies of the State have capital stock to the amount of \$10,451,040, a funded debt of \$10,022,800, and floating indebtedness amounting to \$758,828.04. They pay a tax to the State of \$133,052.77.

Agriculture.—During the year the State paid for the support of its various agricultural institutions about \$47,000. Of this sum, \$3,500 went to the State Board of Agriculture, about \$12,700 to the experiment stations, \$16,800 to Storrs Agricultural College, about \$7,500 to the Cattle and Dairy Commission, and about \$6,400 to agricultural societies and associations.

Cattle.—The last General Assembly passed new laws concerning diseases among domestic animals, and repealed the tuberculin legislation of 1895. The new law has worked to the satisfaction of all concerned. It has resulted in the subsiding of unnecessary alarm, in the increased product and consumption of milk, and in a saving expense to the State, compared with two years ago, of more than \$44,000. There are more than 200,000 cattle in the State, and of these only 71 have been killed by action of the commissioner.

Manufactures.—The Commissioner of Labor, S. B. Horne, in his annual report, made public Jan. 2, 1899, for the year ending Nov. 30, 1898, gives much useful information concerning the manufactures of the State.

In cotton goods the total spindle capacity in 1897 (idle spindles included) was 1,094,008. The number of spindles (idle spindles included) at the taking of the eleventh census was 951,007. This shows an increase of 143,061 spindles. In woolen goods, according to the report mentioned above, 54 establishments used 17,626,388 pounds during 1897, to which amount should be added 4,041,171 pounds of "other material." There were 417 sets of cards in use, 3,213 looms, and 91,928 spindles in operation during the year. The average number of persons employed in all establishments was 7,738, of whom 4,761 were men, 2,507 women, and 470 boys and girls under sixteen years of age. The proportion of boys and girls to the total number employed was 6.1 per cent. The number of yards of woolen goods produced by all establishments was 17,235,929. The stated value of this production was \$12,170,827.67. Deducting from this amount the value of product "reported elsewhere," and the net product value of the quantity of goods reported as having been manufactured in 1897 was \$11,887,227.67. The total amount paid wages, exclusive of salaries, during the year was \$2,667,953.07. The proportion of product value paid in wages was therefore 22 per cent. Fifteen establishments were closed which had been engaged in the manufacture of woolen goods during the previous year.

There were 23 establishments for the manufacture of knit goods in operation in the State during the year. The amount of capital invested

(exclusive of surplus) was \$1,863,000. The average number of persons employed during the year was 3,006, of whom 913 were men, 1,921 women, 68 boys, and 104 girls. The total value of product manufactured by these establishments in 1897 was \$3,630,550.52, and the amount paid in wages (exclusive of salaries) for the same period \$967,752.47.

Information was secured from 25 establishments engaged in the silk industry which were in operation in 1897. The amount of capital invested in these (exclusive of surplus) was \$4,008,000. The value of the manufactured product was \$7,488,485.05, and the amount paid in wages (exclusive of salaries) \$1,734,739. The average number employed in all establishments was 5,154, of whom 2,093 were men, 2,590 women, and 471 boys and girls under sixteen years of age.

Shad Culture.—The Commissioners of Fish and Game report signal success in the propagation of shad. In the spring of 1895 they placed half a million fry in a retaining pond whose outlet flows into Farmington river. In the autumn of that year they let out into the open water these little shad, which then had grown to be from three to five inches long. Three years later thousands of the finest adult shad were caught in Farmington river for the first time in many years.

In 1897 the commissioners carried 6,000,000 shad fry in the retaining ponds in the town of Lyme, and in the autumn let them out into Connecticut river. In 1898 they treated more than 9,000,000 in the same way.

Charities.—The State Board of Charities reports 176 institutions for the delinquent, defective, and dependent classes which are visited by the board (including 88 town almshouses), and the amount of State aid that has been applied to the support of these institutions during the year was \$658,190, compared with \$732,858 in 1897 and \$662,329 in 1896. Part of the decrease is accounted for by the fact that about \$58,000 less was appropriated for building operations in 1898 than in the preceding year.

Crime.—The number of persons in the penal and reformatory institutions in the State on June 30, 1899, was as follows: State Prison, 506; Hartford County jail, 245; New Haven County jail, 258; New London County jails, 92; Fairfield County jails, 188; Windham County jail, 56; Litchfield County jail, 41; Middlesex County jail, 36; Tolland County jail, 11; State School for Boys, 440; Industrial School for Girls, 254; total, 2,127.

Legislation.—The most important legislation of the year was the passage to their first stage of two amendments to the Constitution. One abolishes the requirement of a majority vote in the election of the State ticket. The other provides for rearranging the senatorial districts and increasing their number. These amendments go over to the next General Assembly for action in both houses, a two-third vote being then required for passage. If this is given, the amendments will be submitted to the people.

The highway law was changed in important respects. The scope of investments by savings banks in sound securities was widely enlarged. Provision was made for testing the eyesight of school children; seven years was made the compulsory school age, and the law to encourage attendance at high schools was extended to all towns. The mechanics' lien law was variously amended.

The only enactment in the nature of a labor law was a bill prohibiting employers from any

action that shall prevent their workmen from joining labor organizations. Bicycles and all other rubber-tired vehicles must hereafter carry lights at night, and the stealing of bicycles is discouraged by the new law for the supervision of dealers in second-hand wheels. Restrictions were put upon the evil of excessive interest charges by dealers in furniture on the installment plan. The name of Storrs Agricultural College was changed to the Connecticut Agricultural College. It was forbidden to desecrate the national or State flag with advertisements, inscriptions, etc.

Sheep culture was encouraged by an exemption of \$100 worth of sheep from taxation. The open game season is now from October to December, and snaring of game birds is prohibited, even by the landowner. The trout season is extended to July 1, and if there is a late fishing season for shad and alewives the Fish Commission may extend the time.

Statute Revision.—Gov. Lounsbury selected the following representative men of the State for the commission to revise the statutes: Donald T. Warner, of Salisbury; Gardiner Greene, of Norwich; Henry C. White, of New Haven; James P. Andrews, of Hartford; Michael Kenealy, of Stamford; William A. King, of Willimantic.

Soldiers' Monument.—The Camp-field Monument Association has decided on a portrait statue of Gen. Griffin A. Stedman (who fell in the fighting before Petersburg, Aug. 5, 1864) in connection with the soldiers' monument that is to be erected on the old camp-ground site at the corner of Camp-field Avenue and Bond Street, which has been given for that object by John C. Barker, of Hartford.

Patents.—In proportion to population the State, as in previous years, had more patents granted to its citizens in 1898 than any other State in the Union. The total number granted to citizens of Connecticut was 831.

Expositions.—The last General Assembly passed a resolution authorizing the Governor to appoint a commissioner to serve for two years, who shall take such action as he shall deem advisable "to secure a full representation of the industries of Connecticut at the Paris Exposition in 1900 and at the Buffalo Exposition in 1901." The salary is fixed by the resolution at \$1,200 per annum and \$500 per annum for expenses. Gov. Lounsbury appointed ex-Senator Lee to be the commissioner.

Political.—The town elections held in 162 of the 168 towns of Connecticut do not reveal gains by either party indicating any marked political change. Of the 168 towns in the State, 79 voted for license and 89 no license, a gain of 2 for license.

Twenty-three towns voted on the question of town instead of district management of schools, and only 5 voted in the affirmative.

City elections were held in Waterbury, New London, Norwalk, and South Norwalk. The Democrats made a clean sweep in Waterbury. Edward G. Kilduff was elected mayor over Thomas D. Barlow by 3,740 to 2,232. The Board of Aldermen was saved to the Republicans by only 1 plurality, and they lost control of the Board of Education.

The city election at New London resulted in a Democratic victory by a small majority, 8 Democratic aldermen being elected to 7 Republicans, and most of the city officers being Democratic. The Board of Aldermen will be Democratic.

In Norwalk Charles L. Glover, Democrat, was re-elected mayor by a small plurality over A. B. Woodward. The Republicans were generally suc-

cessful on the remainder of the ticket, and will control the Council.

The Legislature re-elected United States Senator Joseph R. Hawley for the term ending in 1905.

COSTA RICA, a republic of Central America. The legislative authority is vested in the Congress, or House of Representatives, containing 32 members, 1 to 8,000 of population, elected for four years, one half being replaced every two years, by electoral colleges, for the members of which any man can vote who is self-supporting. The President, who is chosen by the Congress for four years, is Rafael Iglesias, who was re-elected for the term beginning May 8, 1898. The Vice-President is José Joaquín Rodríguez, with Dr. Carlos Durán and Asencio Esquivel as alternates. The Cabinet in the beginning of 1899 was composed as follows: Minister of Foreign Affairs, Worship, Instruction, Public Charity, and Justice, Pedro Pérez Zeledón; Minister of Gobernación, or the Interior and Police, and of Public Works, José Astua Aquilar; Minister of Finance, Juan B. Quiros; Minister of War and Marine, Demetrio Tinoco.

Area and Population.—The area is estimated at 23,000 square miles. The population was 243,205 at the census of 1892, divided into 122,480 males and 120,725 females, but 19,456 were estimated to have been omitted, besides 3,500 uncivilized Indians. In March, 1897, the population was computed to be 294,940. Since 1893 the Government has made efforts to induce immigration, granting concessions for agricultural colonies and selling public lands to settlers on favorable terms. There were 6,289 foreigners in 1892—Spaniards, Italians, Germans, British, Americans, and British West Indians. Since 1894 the immigration has been about 1,000 per annum. Education is gratuitous and compulsory. The sum expended on the schools by the Government in 1896 was 354,723 pesos, the number of pupils in 1897 being 21,913 in the elementary schools. The number of marriages in 1897 was 1,763; of births, 13,012; of deaths, 9,925; excess of births, 4,087.

Defense.—The permanent military force numbers 600 men; the militia, 12,000. In war all Costa Ricans between eighteen and fifty years of age can be called into the service.

Commerce and Production.—The soil and temperature at different altitudes are favorable for all kinds of vegetable products. The most valuable is coffee, which enriches this nation even when costly plantations have become almost valueless in other countries owing to depressed prices. The cultivation of cacao also is extending. Cattle are reared in some districts. The people raise corn, rice, and potatoes for food. The value of imports in 1896 was 4,748,818 gold pesos; exports, 5,979,727 gold pesos. The export of coffee was 11,089,523 kilogrammes, valued at 4,318,286 pesos in gold. The value of bananas shipped to the United States, the next most important export, was 670,072 pesos in gold. Other articles of export are hides, cedar, and various other woods.

Finances.—The revenue in 1898 was 8,424,104 pesos, and the expenditure 8,313,454 pesos. In 1897 the revenue was 7,435,611 pesos, of which customs produced 2,766,248 pesos and excise taxes 2,242,174 pesos. The expenditures for that year were 6,897,327 pesos, of which 3,501,354 pesos went for the Government expenses and 1,072,690 pesos for the public debt.

The foreign debt, which was £2,691,300 sterling in 1887, with arrears of interest amounting

to £2,119,512, was scaled down by an arrangement with the bondholders in 1888, and when the Government had defaulted again in 1895 a new settlement was reached in March, 1897, by which interest accrued since January, 1895, was cleared off by an immediate payment of £31,562, and a promise of annual installments of £5,000 for twenty years, the interest was reduced to 3 per cent. on £525,000 and to 2½ per cent. on £1,475,000 of bonds, and amortization at the rate of £10,000 a year was deferred till 1917. The amount of the foreign debt in 1898 was £2,095,000. The internal debt, which has been paid off at a rapid rate, was only 1,116,784 pesos in 1897.

Navigation.—The number of vessels entered during 1896 at the ports of Limon and Punta Arenas was 476, of 471,125 tons. The shipping belonging to Costa Rica in 1898 consisted of 3 steamers, of 600 tons, and 2 sailing vessels, of 551 tons.

Railroads, Posts, and Telegraphs.—The railroads have a total length of 131 miles, consisting of a section of the projected interoceanic railroad running from Limon to Alajuela, a distance of 117 miles, and the beginning of the western section from Punta Arenas to Alajuela, built as far as Esparza, 14 miles, and now being pushed farther. Other lines are in contemplation.

The telephone lines in 1897 had a length of 917 miles.

CRETE, an island in the Mediterranean, forming an autonomous province of Turkey. The last insurrection of the Christians against Ottoman rule, occasioning an invasion of the island by Hellenic volunteers, led to the interference of the great powers. In 1896 the naval forces of Austria, England, France, Germany, Italy, and Russia blockaded the coast to prevent the arrival of arms and re-enforcements, and military detachments occupied the ports to preserve order. The Germans and Austrians afterward withdrew from the blockade. The Sultan finally granted autonomous government, and before November, 1898, withdrew all the Turkish garrisons. A provisional scheme of administration was put in force, while the officers in command of the troops of occupation proceeded to disarm the people. The Sultan nominated a governor, with the title of High Commissioner, accepting for this office at the instance of the powers Prince Georgios of Greece, second son of the King of the Hellenes, born June 24, 1869. He assumed office on Dec. 21, 1898.

Crete is a mountainous island, having very fertile valleys and lowlands. The area is 3,326 square miles, with a population of 294,190. The majority of the people have always been Christians of the Greek race and language. The island was once a dependency of Venice, and after the Ottomans took possession in 1669 many of the inhabitants went over to Islam. During the insurrection and immediately afterward a part of the Moslems emigrated. At the restoration of peace there were 88,000 left. Crete produces fruits and nuts, olives, wine, tobacco, cotton, and silk.

The Russian proposal of the appointment of Prince Georgios, communicated on Oct. 26, 1898, was not cordially seconded by all the co-operating powers, and was extremely distasteful to the Sultan, signifying the gravitation of Crete to Greece and the eradication of the rights and institutions of the Mohammedan population of the island. Finally, however, it was accepted as the best solution of the question. Prince Georgios accepted the nomination as High Commissioner in December, 1898, and in January, 1899, the inter-

national condominium was terminated and the naval forces were withdrawn. The mission of the foreign admirals lasted nearly two years, involving the blockade of a difficult coast, the occupation and military administration of the most important inhabited places and districts, the forcible suppression of violent outbreaks between the warring elements of the population, the arbitration of their differences, and even the organization of a system of law and administration. An international military force was retained to preserve order pending the organization of an indigenous police. The Council of the High Commissioner, consisting of 6 Christians and 3 Mohammedans, was appointed early in January. The Mohammedans who had been driven from their homes in the country districts and had taken possession of houses in the towns belonging to Christians were removed, and as soon as the Christian peasants who had taken refuge in Greece and the islands began to return the process of driving the Mohammedans from the island was commenced. The Prince exhorted the Mohammedans to return to their home and resume their former vocations, assuring them of the friendly and brotherly disposition of their Christian neighbors and the protection of the international troops. Those, however, who had lost their property or were without means of support were compelled to emigrate, while the Christians whose villages had been destroyed were provided for. The Prince in his proclamation hinted at a desire for the emigration of the Mohammedans, saying that they were free to depart, and could have passports for the asking. The Christians everywhere, catching at this suggestion, began to make the position of their Mohammedan neighbors unbearable. When a decree was issued in the beginning of February for the removal of the Moslems at Canea to their own districts about 1,300 more demanded permission to emigrate, as their lands had in many cases been leased to Christians, and they had no implements to till the ground. The Mohammedans that were crowded in the towns could not return to their villages without aid, for their houses and plantations were destroyed. The British authorities at Canea, fearing the economic effects of a general exodus, followed by the ultimate return of many of the emigrants in a state of destitution, refused to give passports till two months had expired. When this period terminated in January more than 3,000 obtained passports. The Prince appointed a commission of 16 persons to draw up a constitution for the new autonomous government. In the memorandum addressed to the Prince by the powers the institution of a National Assembly, in which all Cretan elements would be represented, was made the condition of his appointment, and he was enjoined to organize in accord with this National Assembly a system of autonomous government capable of assuring an equal measure of security to life and property and the free exercise of both religions. The new Constitution created a Chamber of Deputies elected by the inhabitants, except 10, who are nominated by the High Commissioner. The Council of the High Commissioner, appointed in January, consisted of 12 Christians and 4 Moslems. The Constitution was submitted to an extraordinary National Assembly, which came together on Feb. 21. M. Sphakianaki was elected president. It decided that the officers of the new gendarmerie should be Europeans. Greek was declared to be the official language of the country. The military force of the island was to consist of a municipal guard, service in which was made com-

pulsory. The National Assembly is to meet biennially. The High Commissioner was forbidden for two years to contract a loan or to impose new taxation. At the suggestion of Russia it was decided by the occupying powers to submit the Constitution to the revision of the diplomatic corps at Rome, Admiral Canevaro, who had been the chief in command of the international squadron, now being Italian Foreign Minister. The draft of the Constitution, as amended by the Assembly, was passed unanimously on March 16. The prohibition against loans was waived in respect of one of 4,000,000 francs to reimburse the powers, who promised to advance that sum in order to cover past deficits and to procure timber for the rebuilding of the demolished villages. Later the Government was authorized to borrow 5,000,000 francs more at 3 per cent., to be used in making advances to the peasantry, both Christian and Mohammedan, to enable them to re-establish their homes. The representatives of the four powers objected to certain articles of the Constitution tending to restrict the free exercise of the Moslem religion and the legitimate rights of the Sultan, articles which had the effect of increasing the exodus of Mohammedans; also to articles infringing the rights secured to foreigners by the capitulations, and to one conferring on the Assembly power to elect a successor to Prince Georgios and to revise the Constitution in case of a vacancy. The Council of the High Commissioner was constituted on April 30 as follows: Education and Public Worship, M. Yamalaki, M. Sphakianaki having declined the post; Justice, M. Venezelos; Interior, M. Koundouros; Finance, M. Fomis; Posts and Telegraphs and Public Safety, Hassan Skylianiki Bey. M. de Blonay, the Swiss financial adviser of the Prince, was not made one of the councilors. The administration of the districts, previously under the jurisdiction of France, Great Britain, Italy, and Russia, was handed over to the new civil authorities in July.

CUBA, an island of the West Indies, formerly a Spanish colony; since December, 1898, in the military occupation of the United States. The treaty of peace by which Spain relinquished her authority over the island was signed by the Peace Commissioners at Paris on Dec. 10, 1898, and was ratified by the United States Senate on Feb. 6 and by the Queen Regent of Spain on March 17, 1899. The United States Congress affirmed the independence of the island as a preliminary to armed intervention, yet after the surrender of the Spanish posts to United States officers a military government was established by orders of the President of the United States until such time as the Cuban people shall organize a stable government. The United States Government meanwhile assumes responsibility for the preservation of order and the protection of life and property. A military governor general was appointed, with residence at Havana, and a military governor, who shall receive instructions from the Governor General for each of the seven military departments. Major-Gen. John R. Brooke was appointed Governor General; Brig-Gen. Leonard Wood, governor of the province of Santiago; Brig-Gen. L. H. Carpenter, governor of the province of Puerto Principe; Brig-Gen. J. C. Bates, governor of the province of Santa Clara; Brig-Gen. James H. Wilson, governor of the province of Matanzas; Major-Gen. Fitzhugh Lee, of the United States volunteers, governor of the province of Havana and also of the province of Pinar del Rio; and Brig-Gen. William Ludlow, governor of the city of Havana.

Area and Population.—Cuba is a narrow island, 720 miles long, with an average width of 80 miles, hot and unhealthy in the low coast regions, but temperate in the mountainous interior. About a tenth of the surface has been brought under cultivation. Extensive areas have never been explored, and the primeval forest covers 20,000 square miles. The total area is estimated at 45,872 square miles. The population at the census of 1887 was 1,631,687, of whom 528,998 were negroes and mulattoes. Three fourths of the population were totally illiterate, yet there are 843 public schools, besides the state-supported university at Havana. Compulsory education was enacted in 1880. The population of Havana, the capital, was 200,000 in 1894; of Santiago de Cuba, 71,307; Puerto Principe, 46,641; Holguin, 34,767; Sancti Spiritu, 32,608; Cienfuegos, in 1892, 27,430; Cardenas, 23,680. The inhabitants of Cuba are divided into the whites, the colored, the blacks, and the Chinese. The whites are creoles or natives of Cuba, who are mostly planters, farmers, professional people, and traders; Spaniards, about 30,000 in number, residing mostly in Havana, and constituting to a great extent the commercial and capitalist class and that of the skilled artisans; Canary Islanders, who have been brought over to work on the plantations; and various foreigners. The negroes are mostly descendants of slaves imported from the west coast of Africa during this century, and are therefore less civilized and ambitious than the negroes of the United States, but they are harder and stronger and more willing to perform hard and steady labor; the mulattoes and colored, furnishing the domestic servants, are about equal in number to the blacks; the Chinese, about 20,000 in number, were brought into Cuba after the suppression of the slave trade in 1869 to labor as coolies on the plantations, but their treatment was so severe that the Chinese Government refused to allow further importations.

Finances.—The revenue for 1898 was estimated at 24,755,760 pesos, of which 11,890,000 pesos were from customs duties. The ordinary expenditure was put down at 26,119,124 pesos, of which 12,602,216 pesos were required for the debt, 5,896,741 pesos for the Ministry of War, and 4,036,088 pesos for the Ministry of the Interior. The extraordinary revenue and expenditure was estimated at 80,000,000 pesos.

The Cuban debt was calculated to amount to £70,220,000 sterling in 1896, including £10,000,000 due the Spanish Government. By the issue of the war this debt remains an obligation of Spain, but Cuba, which had received practically no benefit from the loans, contracted mainly for military repression, is relieved of the whole of it.

Commerce and Production.—The soil of Cuba is so exceedingly fertile that sugar cane has been grown in the same fields for a century without the aid of fertilizers. The mountains are of coral formation, and the lowlands, especially in the east, are composed largely of fossil remains of marine fauna rich in lime and phosphates. Sugar is the chief product, and after that tobacco, which is manufactured into the finest cigars that are smoked in Europe or America, or exported to the United States to be made up there into cigars. It is the established type of cigar tobacco, and can not yet be grown elsewhere of a quality equal to the Cuban tobacco, especially that of the Vuelta Abajo district of Pinar del Rio. In this western province most of the tobacco is raised, while the central provinces are given up mostly to the cultivation of sugar cane. Coffee was formerly a more impor-

tant product than it has been of late, yet until the war of independence interrupted all industry there were flourishing plantations, and the quality of Cuban coffee stood high in the market. Such was the devastation and paralysis of industry caused by the guerrilla war, in which both sides interdicted production and destroyed buildings and crops, that the tobacco crop of Pinar del Rio in 1897 did not exceed 30,000 bales, little more than a tenth of the normal production. In 1893 the exports of tobacco from Cuba were 6,100,000 pounds of leaf and 134,210,000 cigars. The mills on sugar estates were destroyed to a great extent, and the planters were not permitted to grind cane. The product fell off from 1,004,264 tons in the season of 1894-'95 to 225,221 tons in 1895-'96 and 212,051 tons in 1896-'97. Only a fraction of the land suitable for the sugar cane has been utilized, and yet the exports of sugar have reached 1,100,000 tons in a year. Oranges were formerly exported, but the better-cared-for Florida fruit took away this trade. Bananas are cultivated in the eastern provinces and pineapples in the west. Cotton and cacao are raised to some extent. The number of agricultural holdings in Cuba was estimated in 1891 at 90,960, having an aggregate value of \$220,000,000 and an annual rental value of \$17,000,000. The live stock comprised 584,725 horses and mules, 2,485,766 cattle, 78,494 sheep, and 570,194 hogs. These animals disappeared during the war of independence. The Cuban tobacco crop averaged formerly 560,000 bales of 110 pounds, of which 338,000 bales were exported and 222,000 bales manufactured into cigars and cigarettes in Havana. The exports of leaf tobacco in 1895 were 30,466,000 pounds, and in 1896 they were 16,823,000 pounds. A decree forbidding leaf exports except to Spain, issued on May 12, 1896, checked the exportation of raw tobacco and stimulated that of cigars, of which 185,914,000 were exported in 1896. Nearly the whole of the leaf exported and half of the cigars are ordinarily taken by the United States. Exports of cigarettes in 1895 amounted to 48,163,846 packets.

The forests contain mahogany, cedar, logwood, ebony, *lignum vitæ*, *sabicu*, *granadilla*, redwood, and *caiguaran*, a wood that does not decay in the ground. The forest products exported include mahogany, cedar, which is the material also of Cuban cigar boxes, and various other timbers, honey and wax, dyes, medicines, and wild fruits of various kinds. The exports of cultivated fruits are important, especially of oranges and shaddock, a trade which was revived in consequence of the destruction of Florida groves by frost. The mineral resources of Cuba have scarcely been tapped. The copper mines of Cobre, which were worked by the Indians before the Spaniards came, and furnished ore worth over \$2,000,000 a year for shipment to the United States for the twelve years ending with 1840, are still productive. The iron mines of Juragua continued operations during the insurrection, shipping to the United States from 30,000 to 50,000 tons of iron ore a year. The Juragua and the Daiquiri companies, both American, have \$5,000,000 of capital, and employ from 800 to 1,400 men. The neighboring mountains of Santiago province contain other deposits of this remarkable ore, one of the richest in the world, containing from 62 to 67 per cent. of pure iron, free from phosphorus and sulphur. West of Santiago de Cuba, in the Sierra Maestra mountains, extending for a length of 100 miles, are manganese mines that have scarcely been opened, but are probably capable of supplying all the steel furnaces of the

United States. There were 296 mines registered in Santiago before 1892, of which 138 were iron, 88 manganese, and 53 copper. Gold first attracted the Spaniards to Cuba, and it is still washed by the negroes, but no paying gold or silver ore has yet been found. A fine, pure asphaltum, used in the United States in the manufacture of varnish, is mined near Cardenas, and is found in other localities. Bituminous coal is found in various parts of the island.

The principal imports of Cuba are rice, wheat flour, jerked beef, wine, olive oil, lard, butter, potatoes, and other articles of food, textiles and clothing, machinery, and hardware. The Spanish exports to Cuba were \$28,046,636 in 1892, \$24,689,373 in 1893, \$22,592,943 in 1894, \$26,298,497 in 1895, and \$26,145,800 in 1896. Imports from Cuba into Spain amounted to \$9,570,399 in 1892, \$5,697,291 in 1893, \$7,265,120 in 1894, \$7,176,105 in 1895, and \$4,257,360 in 1896. Under the Spanish tariff not only manufactured articles, but most of the flour, which was once imported largely from the United States, was imported from Spain. Of the imports of flour in 1896, valued at \$4,285,522, Europe furnished 404,019 bags to 100,321 from America; of rice, value \$2,807,481, Europe furnished 853,538 hundredweight and America 23,800 hundredweight; of coal, 180,487 tons came from the United States and 29,050 tons from Europe, the total value being \$2,085,370; of lard, the imports were 194,308 hundredweight, valued at \$2,078,811, all from the United States; the imports of potatoes, valued at \$996,702, were 53,083 barrels from Europe and 231,774 barrels from America; those of salt fish, \$686,000 in value, were 5,036 drums from Europe and 79,521 from America; of imports of cheese, value \$323,673, 1,881 cases came from Europe and 44,358 from America; the imports of butter, 6,392 cases, of the value of \$319,700, came almost entirely from Europe; of Indian corn, 97,303 bags were imported, valued at \$467,049, all from America. The value of the merchandise exports from the United States to Cuba in 1893 was \$24,157,698; in 1894, \$20,125,321; in 1895, \$12,807,661; in 1896, \$7,530,880; in 1897, \$8,259,776. Exports of breadstuffs to Cuba declined from \$3,512,207 in 1893 to \$1,320,866 in 1897. Those of vegetables, principally potatoes, beans, and peas, were valued at \$626,954 in 1897. Under the head of provisions, the total value of which declined from \$5,700,536 in 1893 to \$2,421,715 in 1897, the exports of bacon from the United States to Cuba in the latter year were valued at \$574,402; of hams, \$374,185; of lard, \$1,255,183. The total exports to Cuba of agricultural and other products, including provisions, declined between 1893 and 1897 from \$10,492,352 to \$4,628,011; agricultural implements, from \$130,341 to \$3,624; railroad cars, from \$271,571 to \$9,202; cotton cloth, from \$75,359 to \$25,008; other manufactures of cotton, from \$72,819 to \$42,444; manufactures of India rubber, from \$42,879 to \$27,257; car wheels, from \$18,073 to \$2,782; cutlery, from \$21,094 to \$6,773; machinery, from \$2,792,050 to \$55,009; nails and spikes, from \$107,002 to \$25,016; rails, from \$327,411 to \$14,650; saws and tools, from \$243,544 to \$34,686; steam engines, from \$130,632 to \$1,169; wire, from \$321,120 to \$35,905; boots and shoes, from \$114,943 to \$15,195. The imports from Cuba into the United States were \$78,706,506 in value in 1893, \$75,678,261 in 1894, \$52,871,259 in 1895, \$40,017,730 in 1896, and \$18,406,815 in 1897. The imports of Cuban asphaltum into the United States declined during these years from \$25,992 to \$7,628; drugs and dyes, from \$377,269 to \$5,273; bananas, from \$1,641,387 to

\$147,133; other fruits, from \$559,019 to \$7,829; molasses, from \$1,081,034 to \$167; sugar, from \$60,637,631 to \$11,982,473; woods, from \$1,071,123 to \$63,670; iron ore, from \$641,043 to \$475,281; spirits, from \$19,419 to \$8,295; leaf tobacco from \$8,940,058 to \$2,306,067; manufactured tobacco, from \$2,787,030 to \$1,971,214. Shipments of gold from Cuba to the United States increased from \$1,024,950 in 1893 to \$4,454,032 in 1897, while the contrary movement of gold from the United States to Cuba from \$6,403,264 in 1893 fell off to nothing. The imports into Mexico from Cuba in 1897 were only \$363 in value; exports from Mexico to Cuba, \$26,700. The imports of British merchandise into Cuba in 1896 were valued at \$174,187, and exports from Cuba to Great Britain at \$5,843,892; from Belgium the imports were \$208,304, and exports to Belgium \$1,089,239; imports of French goods were \$3,338,900, and exports to France \$424,600.

Navigation.—Havana was visited by 1,179 vessels, of 1,681,325 tons, in 1895; Cienfuegos in 1897 by 231 vessels, of 309,758 tons.

Telegraphs.—The length of telegraph lines in 1897 was 2,300 miles, all belonging to the Government. The telephones are also Government property, but are leased to a company.

Railroads.—Although Cuba has not yet an adequate railroad system, and for lack of it many of the resources of the island are unavailable, yet there are over 1,000 miles of railroad, besides private branches connecting the main lines with the sugar estates. There are 10 railroad companies. The most important one, the Havana Ferrocarriles Unidos, has 4 lines, of the total length of 246 miles, connecting Havana with Matanzas, Batabano, Union, and Guanajay. The main line of the Cardenas-Jucaro system, which has 206 miles of railroads, including branches, connects Cardenas with Santa Clara. Another company has lines running from Cienfuegos to Santa Clara, from Concha and Sagua la Grande to Las Cruces and to Chinchilla, from Sitiecito to Camajuani, and from Caibarien to Placetas, their total length being 186 miles. The Matanzas company has a line connecting Matanzas with Esles, and branches to Murga, Nieves, Atrevedo, and other places, the total length of the system being 173 miles. A railroad in the west, owned since 1891 by an English company, runs from Havana to Pinar del Rio, 109 miles. The Marianao Railroad, 9 miles, running from Havana to a seaside village, is also owned by English investors. The Guantanamo Railroad, 10 miles in length, runs from Caimanera to Soledad. The Tunas and Sancti Spiritus line runs from Tunas de Zaza to Valle, 24 miles; the Trinidad Railroad from Casilda to Fernandez, 22 miles. A line from Gibara to Holguin is 20 miles; one from Puerto Principe to Nuevitas, 45 miles. The Santiago Railroad connects Santiago de Cuba with San Luis, and by a branch with Sabanilla, the total length being 33 miles. Including the narrow-gauge railroad, 15 miles in length, from the seaport of San Cayetano to Viñales, the military Jucaro-Moron Railroad from Jucaro to Estero, 40 miles, and the military terminal railroad of Havana harbor, 6 miles long, the aggregate length of the railroads of Cuba is 1,135 miles.

The Military Government.—When the United States military authorities took over the island from the Spaniards at the end of 1898 the effects of war and of the reconcentration policy of Gen. Weyler were visible everywhere. Nearly a third of the population had been wiped out by battle, massacre, starvation, exposure, or disease, and many of the survivors were too en-

feebled to resume at once their ordinary occupations, even if facilities for work were at hand. As it was, the people were still huddled in the towns, while the country had been swept bare of all the means of civilized existence. Tobacco and cane plantations were utterly destroyed, houses and cane mills burned, the cattle that once grazed on the hills all killed. In Havana and the other cities no means of giving employment to the town population could be found. Trade and commerce were at a standstill. The factories were still, the wharves and warehouses empty. Shiploads of provisions were sent over by the United States Government to feed the Cuban army and such necessitous poor people as required assistance for a few weeks until the crops of sweet potatoes, yams, corn, and other food products were matured. The Cubans who had contributed money for feeding the troops and reconcentrados organized committees for the purpose of devoting their future efforts to the reconstruction of the industrial life of the island. The relief offered by the United States army was made conditional on work being done. The wealthy and charitable Cubans decided to apply their subscriptions to the purchase of agricultural implements and oxen, so as to enable the people crowded in the cities to go back to the country and till the soil. Plantation owners offered land rent free to such as were willing to raise crops, and recipients of rations were given to understand that these would be continued on no other condition. Those who were accustomed to labor embraced the opportunity. The impoverished families that had formerly lived in luxury suffered most, for the distributors of rations hesitated about relieving their necessities for fear of creating envy among those who had to work for the food they received. Some of the Cuban generals took an initial step toward the disbandment of the army by quartering their men on the plantations, partly to guard them from marauders and partly to assist in working the fields, the owners of the plantations furnishing rations in return for protection. Some of the soldiers took work on the cane plantations at current wages, but most of the generals discouraged their men from returning to civil life, and kept their commands together pending the settlement of the question of the pay of the Cuban army and that of the future political status of Cuba. The Spanish garrison evacuated Havana on Jan. 1, and Gen. Jimenez Castellanos, who was made captain general on the departure of Gen. Blanco some weeks before, made formal delivery of Cuba to Gen. Brooke. The Seventh Corps of volunteers, trained by Gen. Fitzhugh Lee, formed the occupying force of Havana and the western provinces. Gen. Ludlow, who was appointed military governor of Havana city, would allow no Cuban soldiers with arms to enter for fear of collisions with Spaniards. The Cubans were rendered distrustful when they were excluded from participating in receiving the surrender. Gen. Maximo Gomez declared that unless the immediate independence of Cuba be proclaimed or a date fixed for the inauguration of the Cuban Republic he would keep his army under arms. Other Cuban generals did not feel the same jealousy, and some of them continued to discharge their men when opportunities offered for finding work on the sugar plantations. United States Commissioner Charles Gould, who had charge of the distribution of rations, and the provincial governors, who sought for capable Cubans to take official positions, did much to dissipate the doubts entertained by Cubans regarding the good faith of the

United States Government which the action of Gen. Shafter in excluding Gen. Calixto Garcia from sharing in the triumph at Santiago had first awakened and the course of the United States military commission for the evacuation of Cuba had intensified. The committee of the Cuban Assembly passed a resolution recommending the soldiers to accept employment. The American forces in Cuba at the time of the Spanish evacuation numbered 32,458 men and 1,456 officers. In Havana province 16,914 were stationed; in Matanzas, 3,654; in Santiago, 7,405. Gen. Gomez toward the end of January ordered the Cuban officers to rejoin their commands and to concentrate the forces in the province of Santa Clara. Thence he marched to the province of Havana, where the United States authorities gave him the palace of the Governor General outside the city as quarters for him and his staff. He made a request that the United States advance \$60,000,000 to be distributed among the officers and men of the Cuban army to pay them for their services and compensate them for losses incurred in the war of independence. The United States Government refused to advance this or any sum for the payment of the Cuban soldiers, but offered to advance \$3,000,000 to induce them to give up their arms and enable them to return to their homes and resume peaceful occupations. Robert Porter, the United States special commissioner, made it plain to the Cuban commander in chief that no larger sum would be given. When he saw that it was useless to dispute longer about the amount, Gen. Gomez objected to the surrender of the Cuban arms to the United States authorities. He thought that the soldiers ought to retain their arms, that it was compatible with peace to have an army with arms reserved to defend Cuba against her enemies. The majority of the Cuban officers, objecting to the negotiations being carried on for the payment of the army on the basis of \$3,000,000, denied the authority of Gen. Gomez to treat with the United States Government in the name of the army. They held that only the Cuban Assembly could accept or decline such a proposal. He declared that he would observe the rulings of the Assembly so far as he considered them beneficial to Cuba. When Gen. Gomez consented to accept the amount offered, and the gold was shipped from New York, the Assembly came together, and on March 12 impeached Gen. Gomez by 26 votes to 4 and dismissed him from the post of general in chief on a charge of failure in his military duties and disobedience to the Assembly. He still continued the negotiations with Gen. Brooke, and had the approval of most of the Cuban people. The army lists presented by the Cuban officers showed nearly 40,000 men; but as none were to receive a share of the \$3,000,000 who had not borne arms previous to the middle of 1898, the United States officers insisted that the lists be revised. The Cuban Assembly was reconvened, and the disputes that arose as to who were entitled to receive pay caused a delay, and drove Gen. Gomez to decline to take part in the distribution. The question about what was to be done with the arms and how they should be surrendered was made a point of honor by Gen. Gomez. The instructions from Washington were that the arms should be surrendered to United States officers. Gen. Gomez would not accede to this, and proposed, if they could not be kept in armories for the future use of the Cuban army, that they be deposited with the alcaldes of the towns, to be preserved in museums as souvenirs of the war of independence.

Gen. Brooke finally compromised the matter, agreeing that they should be surrendered to alcaldes in the presence of United States officers, turned over to the joint care of these and of representatives of the Cuban army, shipped under guard to Havana and Santiago, and there placed in United States armories under the immediate charge of armorers appointed by Gen. Gomez, to be exhibited as relics of the insurrection and the Spanish-American War. The money was to be distributed by American and Cuban commissioners. Every Cuban soldier who was in the service before July 17, 1898, and was not in receipt of a salary from a Government or municipal office, received upon identification by his company officers and the delivery of his arms and equipments the sum of \$75 in United States currency. The Cuban commissioners, influenced by the Assembly, would not at first fall in with the arrangement made between Gen. Brooke and Gen. Gomez, but the soldiers, following the advice of their general in chief, gave up their arms and disbanded.

When Gen. Bates retired from the governorship of Santa Clara province his command was merged with that of Matanzas, and taken over by Gen. Wilson, who abolished the rural police created by his predecessor and maintained order with a municipal police. Gov.-Gen. Brooke and the military governors of the provinces surrounded themselves with civilian subordinates, officers of the Cuban army, and other Cubans and Spaniards. The island became perfectly peaceful under their conciliatory administration, and the people turned to the reconstruction of the industries of the island where this was possible. So much had been destroyed that without foreign capital the wheels of industry could not be set moving again. American capitalists were not so ready to avail themselves of the opportunities for investment as English and German capitalists, who acquired many properties that were in the market at low prices, but without proceeding immediately to utilize them and thus furnish work to the people. English agents acquired much of the railroad stock that Spanish holders wished to get rid of. The sugar plantations had been so devastated that the principal industry of the island could not be revived without replacing buildings and machinery at enormous expense, which the depressed condition of the cane-sugar cultivation did not warrant. The conditions of the Cuban tobacco trade, on the other hand, were more inviting than they had ever been. No suitable substitute had been found for good grades of Havana tobacco during the time that the Cuban insurrection and the war had kept them out of the market. The soldiers of Gomez and other Cubans who wanted work consequently found employment in the tobacco fields, and raised the largest crop that the island ever produced.

Cubans who had political aspirations and found no employment under the American administration stirred up an agitation concerning the continued military occupation, and threatened to raise a revolt against American rule, which seemed to them to grow more fixed and permanent. These were the members and friends of the Cuban military assembly that had endeavored in the beginning to obtain recognition and power as the native governing body. Gen. Gomez, who exerted his influence at that time to prevent these malcontents from making mischief, assured the Cuban people once more of his complete faith in the honor of the Americans and the fidelity of the United States Government to

its pledges. The efficient and orderly administration of the American army officers and the great improvements that they wrought in the sanitation of cities, the organization of the post office, police, justice, public schools, etc., reconciled many Cubans to the idea of the perpetuation of American rule, while the endeavors of the military governors to make use of native administrative talent wherever it could be found made the greater number who looked forward to independence content to wait for the gradual development of the Cuban republic. The process of economical reconstruction and the influx of outside capital gave the Government a good revenue from customs duties. The sanitary improvement of Havana by Gen. Ludlow and of Santiago by Gen. Wood kept the yellow fever in check to an extent never before known in Cuba, and gave promise that the scourge would be banished as it had been from the Southern ports of the United States. Americans who sought public employment in Cuba were in nearly all instances disappointed. The post office was reorganized on

American lines by E. G. Rathbone, yet of the employees 570 were Cubans and only 130 Americans. The agitators who wished to provoke a rising against the Americans were actuated mainly by personal ambition. They uttered their incendiary ideas in meetings and in the press without being checked by the authorities, who were convinced of the peaceful and law-abiding character of the Cuban people and of the impossibility of stirring them up to insurrection against the provisional government so long as the means of providing for their families were opened to them. Cubans everywhere were eager to learn English, recognizing that Cuba under any government will be economically dependent on the United States.

The military character of the government was rendered as inconspicuous as possible under Gen. Brooke, and a further advance in the direction of normal civil administration was made in the autumn, when that officer retired and was succeeded as Governor General by Gen. Leonard Wood.

D

DELAWARE, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 7, 1787; area, 2,120 square miles. The population, according to each decennial census, was 50,096 in 1790; 64,273 in 1800; 72,674 in 1810; 72,749 in 1820; 76,748 in 1830; 78,085 in 1840; 91,532 in 1850; 112,216 in 1860; 125,015 in 1870; 146,608 in 1880; and 168,493 in 1890. Capital, Dover.

Government.—The following were the State officers during the year: Governor, Ebe W. Tunnell; Secretary of State, James H. Hughes; Treasurer, L. Heisler Ball; Auditor, John A. Lingo; Attorney-General, Robert C. White; Adjutant General, Garrett J. Hart; Insurance Commissioner, Edward Fowler; Agricultural Inspector, E. H. Bancroft; Chancellor, John R. Nicholson; Chief Justice, Charles B. Lore; Associate Justices, Ignatius C. Grubb, W. C. Spruance, James Pennewill, and William H. Boyce; Clerk, W. S. Hutson. All are Democrats except Messrs. Ball and Lingo and Justices Spruance and Pennewill, who are Republicans.

Finances.—The disbursements for 1898 exceeded the receipts by \$47,110.10, while for the year next preceding the receipts exceeded the disbursements by \$28,910.80. The discrepancy of 1898 was due to three unusual causes of expenditure—the Constitutional Convention and the special session of the Legislature, which together cost over \$62,000, and the expense of fitting out the militia for service in the Spanish war.

The total indebtedness, Jan. 1, was \$819,750. The assets of the State in investments amounted to \$1,024,452; there was \$49,254 in cash in the treasury, showing a large excess of assets.

Within a few years improvements and additions to the Statehouse, the State Hospital, the armory, and the State Library have been made, amounting in all to \$144,967.

The estimates of the Treasurer for 1899 were: Receipts in the general fund, \$338,319, and expenditures \$304,230; income of the school fund from investments, \$31,105, and from appropriation from general fund, \$100,000; expenditures of school fund, \$131,105, of which \$12,000 is for free text-books; receipts of the sinking fund from the oyster revenue, \$4,500, and expenditures \$4,310.

Education.—The State Board of Education made a report to the Legislature on its work for the seven months of 1898 in which it had been in existence. It was found that there were no reliable statistics on many points concerning the schools, and a series of blanks were sent out to gather such knowledge. Steps have been taken for more thorough examination of teachers and for the introduction of better text-books. The report says: "It is a fact that in the great majority of the school districts three fourths of the annual expense is directly borne by the State through the school dividend. In many instances the district only expends \$25 a year of the amount raised by taxation. Under these conditions it is but just that the State should see that its money is expended for the best interests of its wards, the children in our free schools. That it is not so expended is apparent from the report of the superintendent of schools for Sussex County. When it is realized that so many of the districts in one county alone are utterly unmindful of the most elementary principles governing the good health of the children, the absolute necessity of a better knowledge of school conditions must be manifest. In yet other instances the overcrowded condition of some of the school-rooms would seem to indicate that the State does not afford, in fact, to all the children an opportunity to gain a common-school education. The board calls attention to the facts set forth in the reports of the county school commissioners for Sussex County concerning a peculiar tribe or race of our citizens, known as Indians or Moors, located in Indian River Hundred. Under the conditions detailed by them, it would seem but wise that the commission for that county should be authorized to lay out a school district or districts for this race or tribe, and that the general school law should be made applicable to such districts when so laid out." The action here suggested was taken by the Legislature.

Delaware College had in March a membership of 90. In June there were 2 graduates in the classical course, 7 in the Latin, 2 in the mechanical engineering, and 1 each in the civil and electrical engineering courses.

The one hundredth anniversary of the Forwood Public School in Brandywine Hundred was cele-

brated Aug. 17. The land on which the house stands was given for the purpose, June 17, 1799, by Richard Justison, who had received it from the proprietary governor of the three counties.

State Institutions.—The population of the State Hospital for the Insane in October was 295, of whom 128 were women.

The question arose this year whether the Levy Court of New Castle County was liable for support of boys committed to the Ferris Industrial School. The Legislature had so amended the charter in 1898 as to provide that the county should pay at the rate of \$100 a year for every boy committed; and the Levy Court resisted, on the ground that the school is a private corporation, that the new Constitution forbids appropriations of public money to such institutions by cities and towns, and that the amendment to the charter was in contravention of the Constitution. The court decided for the school, on the ground that the appropriation is not to the corporation as such, but for the maintenance and education of boys, who would otherwise be committed to the county jail.

Militia.—The last muster of the National Guard before it went into the service of the Government in 1898 showed a membership of 549 officers and men, and when the regiment went into camp it numbered 400 to 500. The places of those who declined to enlist for the war were filled by volunteers, some of whom enlisted as members of the State militia for three years, and others only for national service. In all, more than 1,600 entered the service. At the beginning of 1899 there were about 500 State militia organized in a regiment of 10 companies. The Adjutant General desired the Legislature to make provision for one of 12 companies, in order that there might be three full battalions, conforming to the national regulations. Of the \$30,000 voted by the Legislature to cover the expenses of fitting the militia for national service, \$22,275 was expended.

Banks.—The trials in connection with the defalcation of the teller of the First National Bank of Dover (see Annual Cyclopædia for 1898, page 218) were ended in October this year by the entering of a *nolle prosequi* against United States Senator R. R. Kenney, whose two trials resulted in disagreement of the juries. The teller, W. N. Boggs, was sentenced in May to pay a fine of \$6,500 and be imprisoned in the New Jersey Penitentiary five years. Of the three others convicted, one died in the Penitentiary in July and two others—Clark and Cotter—are serving sentences of five years each.

The committee of the Legislature on private corporations received a report from accountants appointed to investigate the affairs of the Farmers' Bank, which was organized in 1807, with its principal bank at Dover and branches at Georgetown, Wilmington, and New Castle. On their recommendation the capital stock was reduced and the branch at New Castle discontinued. It is stated by the authorities that, "with the New Castle branch wound up, the Farmers' Bank will be able to pay 8-per-cent. dividends within a year, and the State will get \$117,000 in cash for its canceled stock, and in one year the same revenue from the remaining three fourths as now for the whole."

The Delaware Railroad.—A new railroad company has been formed by the consolidation of the old Delaware Railroad, the Queen Anne's and Kent, the Delaware and Chesapeake, and the Cambridge and Seaford. The capitalization is \$2,987,000. By the consolidation of the roads into

one company the operations of the system, which is an important adjunct to the Pennsylvania Railroad, will be simplified.

The Delaware and Chesapeake Canal.—The annual report to the stockholders of the company in June showed that the revenues from tolls for the past year were \$135,522.99; from other sources, \$8,816.81; total, \$144,339.80; maintenance, \$45,119.37; balance, \$99,220.43.

Defenses of the Delaware.—The report to the War Department, made in October, gives details of the work on the defenses of the Delaware the past year. They include two masonry works of old type, one of which is in the charge of an ordnance sergeant. No new work is contemplated at this site. The other was garrisoned for a portion of the year, but the troops have been withdrawn and modern batteries are in course of construction at the site. Modern works of defense are also located at two other points on the river which are garrisoned.

Rivers and Harbors.—The river and harbor bill reported in January carried an appropriation for Wilmington harbor amounting in the aggregate to \$220,780. Of this sum, \$45,000 is appropriated in cash available during the fiscal year ending June 30, 1900, and \$170,780 is the additional amount which the Secretary of War is authorized to expend in future contracts to complete the existing project.

Appropriations were made for other improvements as follows: Appoquinimink, Smyrna, Murderkill, and Broad Creek rivers, each \$5,000; Mispillion river, \$2,500; Nanticoke river, \$3,000. The Government has spent \$150,000 on the inland water way between Delaware and Chincoteague Bays, but no appropriation was made to continue the improvement. St. Jones river is to be surveyed for a new project.

Wilmington.—Statistics give the tonnage of domestic commerce of the city in 1898 as 614,315, and the value \$26,870,675; the total value of foreign imports, \$86,500; foreign exports, \$4,883,000. The vessels trading in the harbor not included in this were 40, with tonnage of 10,590, engaged in daily river and harbor work, not including numerous vessels engaged in coastwise trade, of which no complete record is kept. There passed in and out of the port during 1898 976 steamers, barges, tugs, schooners, vessels, floats, laden with merchandise or for repairs, not including the regular lines of daily connections. Freight and passenger lines between Wilmington and Philadelphia and Penn's Grove carry annually 530,000 passengers, and freight valued at \$16,500,000.

Twenty-one vessels were built, aggregating 13,346 tonnage, and the vessels repaired had a total tonnage of 102,288.

The two hundredth anniversary of the consecration of Holy Trinity (Old Swedes) Church, in Wilmington, was celebrated May 28. While not the oldest church edifice in the country, it is the oldest now in use for regular religious service. The building has been carefully restored, the old forms of staircase, pews, and other parts have been preserved in the new material, and the work of modern innovations from time to time has been removed. Among the gifts for the bi-centennial was a massive carved chair, made of wood from the church itself, from the widow of Rev. Charles Breck, and a portrait of the first pastor, Rev. Ericus Tobias Borek, from the Swedish Mining Company in Fahlun, which gave a silver service to the church in 1718. The portrait is a copy of one at Fahlun, where Mr. Borek ministered after leaving Wilmington.

Political.—Charges of bribery were made in connection with the registration for the election in the autumn of 1898, and arrests were made the following year.

The municipal election in Wilmington this year showed a great falling off in the Union-Republican vote compared with the regular. Out of a total poll of 10,081 votes, the highest Union-Republican vote was 1,822, and the regular 3,451. The Union-Republican vote was 18 per cent. of the total, against 30 per cent. in 1896, and 34 per cent. of the total Republican, against 51 per cent. in 1896.

Legislative Session.—The General Assembly met Jan. 3 and adjourned March 13. C. H. Salmon was President of the Senate, and Theodore F. Clark was elected Speaker of the House, Jan. 7, on the ninety-first ballot. The Senate stood 9 Democrats and 8 Republicans; the House, 12 Democrats and 23 Republicans.

The Governor in his message recommended the passage of a general corporation bill as contemplated by the new Constitution, a subject which was before the special session in 1898, but failed of being enacted into a law; an act to insure frequent settlements of collectors with county treasurers; a good highway law; provision for having State printing done and stationery supplies furnished by contracts awarded after advertisements for bids; and consideration of the subject of a State exhibit at the Paris Exposition.

The Legislature enacted a general incorporation law and a general law for the government of building and loan associations, providing for reports to the Insurance Commissioner and supervision by him. The act concerning free schools was amended, an act for providing graded-school facilities was passed, and one relating to circulating libraries for the schools. Teachers of ten years' experience were exempted from the requirement of examination, and special acts relating to schools and school moneys were passed. Some changes were made in the game and fish laws. The act providing for the assessment of poll taxes was repealed, and also an act providing that upon a preliminary argument, which may be for a simple matter, an appeal may be taken to the Supreme Court, thus delaying the trial of the case almost indefinitely. Before the passage of this act the practice was that an exception should be noted in the court below of any ruling upon a demurrer. The case should then proceed to trial in the lower court, and the question reserved, as well as all other questions involved in the trial of this case, should be determined at one time.

Other acts of the session were:

Regulating the sale of liquors to minors, insane persons, and any not of sound mind.

Appropriating \$1,500 to the State Fair Association.

Authorizing the appointment of six trustees with power to borrow \$100,000 for the purpose of erecting buildings and establishing a workhouse in New Castle County.

Establishing a State Board of Agriculture.

Authorizing the Superior Court to change the names of wives and children in divorce cases.

Regulating the licensing of pilots.

Providing for giving the State jurisdiction of crimes begun in the State and finished elsewhere.

Requiring the closing of barber shops on Sunday.

Regulating the sale of yellow-trefoil seed mixed with the seed of red clover.

Fixing a standard of measurement for oysters.

Providing punishment for persons using worthless checks.

For the protection of labels and seals of labor organizations.

To prevent adulteration of candy.

Giving parties in suits for divorce the right of appeal.

Changing the name of Little creek to Little river.

Regulating the sale of poisons.

Providing that a voter when designating his choice of candidates shall mark his ballot with a lead pencil.

Taxing roving bands of gypsies.

Amending the act relating to the practice of dentistry.

Among the items of the general appropriation bill were salaries of the Governor, \$2,000; Secretary of State, \$1,000; librarian, \$550; Chancellor, \$3,800; Chief Justice, \$3,800; the four associate justices, \$14,400; court stenographer, \$1,500; Treasurer, \$1,450; Auditor, \$1,200; Attorney-General, \$2,000; the two State detectives, \$2,400; the three county superintendents of schools, \$3,000; also, for institutes for white teachers, \$450; for colored, \$100; for farmers' institutes, \$400; for Board of Agriculture, \$1,200; Industrial School for Girls, \$1,500; Delaware College, \$19,200; State College for Colored Students, \$4,800; State printing, \$6,000; for expenses of indigent deaf, blind, and idiotic children in institutions outside the State, \$2,800; for the free public schools, and in addition to the income arising from investments of the public-school fund, to be used exclusively for the payment of teachers' salaries and for furnishing free text-books, \$100,000; for the education of juvenile delinquents committed from this State to the House of Refuge in Philadelphia, \$300; for paying interest on the indebtedness of the State, \$34,000; State Hospital, \$45,000.

A joint resolution was adopted asking Congress to provide for deepening the channel in Delaware river to 30 feet, and a House resolution requested Congress to confirm the treaty of peace with Spain.

An act providing for three legislative attorneys was repassed after having been vetoed.

Some bills that were passed by one house or both houses were hidden or carried away to prevent their final passage and approval. One enabling State officials to furnish corporate surety disappeared before it was signed, and was afterward found under a desk in Representatives Hall. One relating to municipal elections in Wilmington was hidden after having been passed by the Senate; and one providing for the investment of \$22,035, a portion of the school fund which was found to be in the Farmers' Bank uninvested, was missing, and did not reach the Governor.

A bill was introduced and passed, the object of which was to suppress gambling. It imposed a fine not to exceed \$500. When the bill reached the Governor the words "in any one year" followed the limit of \$500 fine, thus virtually making the \$500 a license fee to carry on gambling for a year. The result of investigation indicated that a bill with these words added had been substituted for the one that passed, and the indorsement of the clerk had been forged upon it. An indictment was found against E. D. C. Hegeman, who was reported to have acknowledged that he wrote the bill; but the indictment was quashed, on the ground that there was no law to meet one of the counts, and the other was defective.

One of the duties devolving upon the Legisla-

ture was the election of a successor to United States Senator George Gray. The Republicans had a majority of 10 on joint ballot; but the division between the regular Republicans and the Union Republicans, or "Addicksites," caused a deadlock, which continued through the session, and no Senator was chosen. One hundred and thirteen ballots were taken. J. Edward Addicks was the candidate of the Union Republicans; the regular Republicans voted for H. A. Du Pont, F. G. Du Pont, William S. Hilles, Anthony Higgins, Levi C. Bird, W. C. Spruance, J. S. Willis, Joseph H. Chandler, Hiram R. Burton, P. L. Cannon, and H. A. Richardson; and the Democrats for George Gray, L. Irving Handy, J. G. Gray, J. B. Pennington, Willard Saulsbury, John A. Nicholson, John Biggs, and John Pyle.

An incident of the voting was the defection of three Democrats—one Senator and two Representatives—who on the last day voted for J. E. Addicks. They were severely censured by their party, and requested to resign their seats by the Democratic State Central Committee. They gave as a reason that they wished to defeat the election of a regular Republican.

Charges of bribery in connection with the senatorial contest were freely made. It was believed that money had been used, and a member of the Legislature asserted that it had been offered to him by another member to induce him to vote with the Union Republicans; and an indictment was found against the accused member, who was acquitted after trial by jury.

The statute forbidding the attachment of wages in New Castle County, except for board and lodging, was brought to test in the Superior Court, and was declared constitutional.

DENMARK, a kingdom in northern Europe. The legislative body, called the Rigsdag, consists of an upper house, the Landsting, containing 66 members, 12 appointed for life by the Crown and 54 elected by the highest taxpayers, and the Folkething, or popular assembly, composed of 114 members elected by all male citizens over thirty years of age, with the exception of domestic servants and recipients of public charity.

The reigning King is Christian IX, born April 18, 1818, the son of the Duke of Schleswig-Holstein-Sonderburg-Glücksburg, who by the Treaty of London, signed on May 8, 1852, was appointed successor of Frederick VII, the last King of the house of Oldenburg, and on the demise of the latter came to the throne on Nov. 15, 1863. The heir apparent is Prince Frederik, born June 3, 1843.

The Cabinet was composed in the beginning of 1899 of the following members: President of the Council and Minister of Finance, H. E. Hørring; Minister of the Interior, V. de Bardenfleth; Minister of Justice and for Iceland, N. R. Rump; Minister of Foreign Affairs *ad interim* and Minister of Marine, Vice-Admiral N. F. Ravn; Minister of War, Col. C. F. F. E. Tuxen; Minister of Public Instruction and Ecclesiastical Affairs, Bishop H. V. Sthyr; Minister of Agriculture, Alfred Hage.

Area and Population.—The city of Copenhagen, covering 8 square miles, had 312,859 inhabitants in 1890; islands in the Baltic, 5,024 square miles, 917,401; the peninsula of Jutland, 9,743 square miles, 942,121. The total area is 14,775 square miles, with a population of 1,059,322 males and 1,112,983 females, not including the *Färøe* Islands, which have an area of 514 square miles and 12,955 inhabitants. The population of the kingdom in the beginning of 1898 was estimated at 2,310,000. The number of mar-

riages in 1897 was 17,488; of births, 69,522; of deaths, 38,712; excess of births, 30,810. The number of emigrants in 1897 was 2,260, chiefly bound for the United States.

Finances.—The revenue for 1899 was estimated at 68,568,723 kroner; expenditure, 68,430,032 kroner. For 1900 the estimate of revenue is 68,162,192 kroner, of which 321,220 kroner are the balance from the domain revenues, 5,030,199 kroner interest on assets of the state, 10,467,500 kroner proceeds of direct taxes, 48,019,000 kroner indirect taxes, mainly customs and excise, 332,460 kroner net receipts from posts and telegraphs, 570,312 kroner separate revenues, 1,100,000 kroner the balance from lotteries, and 1,821,501 kroner revenue from the employment of property and funding of debt. The disbursements are estimated at the sum of 67,970,912 kroner, of which 1,203,200 kroner are for the civil list and appanages, 319,016 kroner for the Rigsdag and Council of State, 6,828,100 kroner for interest and expenses of the debt, 3,356,812 kroner for civil and military pensions, 698,556 kroner for the Ministry of Foreign Affairs, 2,448,895 kroner for the Ministry of Agriculture, 4,850,478 kroner for the Ministry of the Interior, 4,594,797 kroner for the Ministry of Justice, 4,461,425 kroner for the Ministry of Education and Ecclesiastical Affairs, 10,316,835 kroner for the Ministry of War, 6,996,844 kroner for the Ministry of Marine, 4,168,378 kroner for the Ministry of Finance, 78,431 kroner for Iceland, 5,425,480 kroner for extraordinary state expenditure, and 12,403,656 kroner for improvement of state property and reduction of debt.

The public debt on March 31, 1898, amounted to 208,193,351 kroner, paying mostly 3 per cent. interest. The invested reserve fund amounted to 17,890,461 kroner; the total investments to 73,164,075 kroner, not including the state railroads, valued at 218,021,694 kroner, nor the domains.

The Army and Navy.—The army is divided into two general commands. The infantry is formed in 5 brigades of 2 regiments each, the regiment having 3 line battalions and 1 in reserve, the war strength of each battalion being 21 officers and 1,050 men. It is armed with the Krag-Jørgensen rifle of 1889, of 8 millimetres. The cavalry consists of 5 brigades of 3 squadrons, the full effective of the squadron being 5 officers and 150 men. The artillery comprises 2 regiments of field artillery, each consisting of 2 sections of 3 batteries, the war effective being 4 officers and 200 men, with 8 steel guns of 9 centimetres caliber, and 1 regiment of fortress artillery, composed of 3 battalions of 4 companies of line and 2 of reserve. The engineers are organized in 1 regiment of 9 line companies and 2 in reserve. The peace effectives in 1898 were 50 officers and 25 men in the staff; 450 officers, 1,170 noncommissioned officers, and 5,072 men in the infantry; 90 officers, 167 noncommissioned officers, and 480 men in the cavalry; 160 artillery officers, 370 noncommissioned officers, and in the field artillery 324 and in the fortress artillery 975 men; 50 officers, 80 noncommissioned officers, and 270 men in the engineers; and 24 officers and 11 noncommissioned officers in the reserve corps of Copenhagen and Bornholm; total, 814 officers, 1,824 noncommissioned officers, and 7,121 men. In case of war the reported strength of the army is 1,448 officers and 63,134 noncommissioned officers and men, with 128 pieces of artillery.

The navy comprises 5 armor clads, 3 monitors, 2 large and 3 small cruisers, 8 gunboats, 3 school ships, 1 torpedo vessel, and 13 first-class and 12

second-class torpedo boats. Most of the ships were built at Copenhagen. The Skjold, launched in 1896, of 2,160 tons displacement, with 9 inches of side armor, carries in a turret a single 26-ton gun, with 3 quick firers as a secondary battery. The deck-protected cruisers Heimdal, Hekla, and Geiser have a displacement of 1,310 tons; Fyen, 2,740 tons; and Valkyrien, 3,020 tons. The latest addition is the Herluf Trolle, of 3,470 tons. Another ship of the same design is building.

Commerce and Production.—The land laws of Denmark forbid the consolidation of farms into landed estates, and encourage the subdivision of the existing farms into smaller holdings. Tenant farmers have the fullest control of their land so long as they pay their rent. The crop of rye in 1897 was 17,670,000 bushels; of barley, 18,580,000 bushels; of oats, 34,140,000 bushels; of wheat, 3,368,000 bushels; of potatoes, 19,550,000 bushels; of beets and other roots, 147,000,000 bushels. There were exported 20,800 horses, 81,122 cattle, and 6,250 sheep in 1897. The production of alcohol in 1897 was 3,586,000 gallons; of beet sugar, 48,345 tons. The total value of imports in 1897 was 416,797,703 kroner; of exports, 328,121,076 kroner. The domestic exports amounted to 243,500,000 kroner, of which sum 197,300,000 kroner represent food substances, 36,900,000 kroner raw materials, 7,200,000 kroner articles of personal or household use, and 2,100,000 kroner manures, seeds, and fodder. The imports for domestic consumption were valued at the total of 325,900,000 kroner, of which 78,100,000 kroner represent food substances, 103,500,000 kroner raw materials, 68,600,000 kroner articles of personal and domestic use, 21,500,000 kroner fuel, and 54,200,000 kroner manures, seeds, and fodder. The principal imports in 1897 were cereals for 60,838,000 kroner, textile goods for 50,065,000 kroner, colonial goods for 39,477,000 kroner, pork, lard, eggs, and butter for 35,701,000 kroner, metals and hardware for 32,466,000 kroner, wood and wood manufactures for 24,212,000 kroner, coal for 22,413,000 kroner, drinks for 7,001,000 kroner, and live animals for 2,531,000 kroner. The principal domestic exports were butter, eggs, and pork products for 164,266,000 kroner, live animals for 27,617,000 kroner, and cereals for 8,429,000 kroner.

The amount of trade with each of the principal countries in 1897 is given in kroner in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain	78,807,000	191,188,000
Germany	129,301,000	65,737,000
Sweden and Norway	59,061,000	86,647,000
Russia	38,709,000	20,379,000
United States	48,385,000	2,119,000
France	10,644,000	1,861,000
Belgium	7,089,000	1,027,000
Netherlands	7,844,000	725,000
Danish colonies	2,959,000	4,139,000
Rest of America	7,823,000	171,000

The people of Denmark have developed the principle of co-operation further than any people in Europe, and by patriotic mutual efforts have tided over the agricultural crisis by the entire revolution of their rural industries, and have so extended the cultivated area as to make room for the population displaced by the annexation of Schleswig-Holstein to Germany, as well as the natural increment of a country that was growing prosperous while other farming populations were growing poorer. The laws have been framed to encourage, even compel, the division of the land into small farms, and the yeomanry,

instructed by means of the most complete and elaborate system of agricultural schools and lectures and model farms, are organized in co-operative associations for the purpose of working up and marketing their produce. Their dairy products, provisions, and eggs are the main exports of the country, the mainstay of its prosperity; and as they are kept up to the highest commercial standard, they find a steady market at high prices in Great Britain. The earliest butter factories were started about 1880, and now Denmark supplies Great Britain with butter to the amount of over \$35,000,000 a year. Cheesemaking was tried later, and as the result of scientific study and experimentation and of knowledge obtained from all countries and disseminated freely, not only by the agency of the Government, but by the help and participation of individuals of various classes, cheeses of many types are now made in Denmark to perfection, and are exported to Russia and other countries. So also with poultry farming. There was first a national association formed for the improvement of the breed of fowls and the promotion of the industry. Lecturers were sent through the country to instruct the people who were interested, and sittings of eggs were supplied from a central establishment through various local branches. Later a co-operative society, comprising nearly 20,000 members, was formed for the purpose of marketing eggs, which it collects throughout the country, marks, sorts into grades and sizes, packs securely, and ships to England, paying a stipulated price on receiving the eggs from the members, and dividing the profits among them at the end of the year. This system has built up an export trade in eggs amounting to \$3,500,000 per annum. The co-operative butter factories receive the milk from the farmers, who have been taught to care for their cattle in the best manner and to feed them economically. By the aid of the Government and the wealthy classes the breed, which has always been kept up to a high standard, has been improved by selection, so that the export of breeding stock has become an important branch of trade. The butter has a reputation second to none. To utilize the skim milk and obtain the best value for the surplus grain the breeding of hogs was introduced, the quality improved by selection, as with other live stock, and co-operative curing factories established to receive the fattened pigs from the farmer, giving him current market rates, to turn them into choice hams and bacon for the British market, the fatter and grosser kinds going to Germany, and to divide profits at the close of each year. By this method the exports of hams and bacon have increased to over 1,000,000 hundredweight a year. Instead of exporting grain, as formerly, Denmark now imports from Russia and the United States in order to feed the hogs. The highly developed system of stock farming and mixed farming, which has taken the place of ordinary agriculture, has been brought about by raising the intelligence of the people and training them in a practical knowledge of rural economics, and they have embraced with zest the opportunities offered, making sacrifices to attend the winter schools and serve an apprenticeship in the training farms.

The production of the country would not be what it is except for an extraordinary scheme of reclamation that originated with Lieut.-Col. E. M. Dalgas, who had fought for the preservation of the duchies, and after their loss suggested this plan of redeeming waste lands to make up for the diminution of the national territory. An

expanse of over 3,500 square miles in Jutland, long denuded of the original forest, was a complete desert of heath, morass, and sand dunes. The Government and individuals gave abundant support to the scheme of reclaiming this area. A society was organized that obtained a membership of 25,000 persons, divided among 50 branches. The reclamation of the lands was effected by means of drainage and irrigation canals, the planting of forests and hedges, and the distribution of marl brought by specially constructed railroads. Colonies of agriculturists established themselves on the farms recovered from the heath and sand, supplementing them by plantations of their own, the state guaranteeing 25 per cent. of the cost of planting permanent forest. Other societies and companies engaged in similar reclamation works, and the state and local authorities also bought up tracts of arid land to be planted with trees. An efficient system of education in forestry and the reclamation and utilization of waste land was organized, and experimental farms and special schools were founded. The result has been thus far that 2,000 square miles have been brought under cultivation as farms, pasture lands, or forest. It has also had the educational effect of giving a new impulse to farming and stock raising throughout the country. The mechanical trades of Denmark, which are largely concentrated in Copenhagen, have been all organized in trade unions, and these are united in a compact organization, the Central Association of Trade Unions, which is closely federated with the Social Democratic party. Of the 80,000 workmen engaged in industrial production, practically all are members of trade unions and of the Social Democratic party, which exercises a great influence through the party organ, the most widely circulated newspaper in Denmark. This paper brings in a large revenue to the party, which has several well-appointed clubhouses, each with a central hall, where lectures and political addresses are given. The party has also established a co-operative bakery in Copenhagen, which sells good bread at low prices, forcing competitors to do the same. Lately a co-operative butcher shop and curing establishment has been started. The party has also established a system of exchanging country children and city children during the summer vacation. The industrial employers have organized themselves in a central federation in order to be able to cope with the federation of trade unions, and they were ready for a trial of strength and eager to seize an opportunity before their organization should show signs of disintegration. An occasion was found in a dispute that grew out of a strike of joiners in some of the villages of Jutland. After the central association of trade unions had come to an agreement with the employers' federation for the settlement of the strike, the striking joiners refused to accept the terms agreed upon. The employers' federation therefore, on May 2, 1899, declared a general lockout of the whole joining trade, involving about 3,500 men. The Jutland joiners, some 300 in all, now repented; but the employers were determined to force the main issue for which they were organized. Accordingly, they formulated a series of demands, the rejection of which would result in a lockout of all the men employed in carpentering, building, engineering, and the iron trades, embracing half the industrial population of Denmark. One demand was that all agreements made between the central associations of workmen and employers should be binding on all local branches of the trade unions;

another was that employers should have the entire direction of the organization and arrangement of labor in their factories; a third stipulated that no permanent employees, foremen, etc., should be members of trade unions; a fourth was that all agreements between masters and men on questions of wages and hours of labor should be terminable on Jan. 1 of each year instead of on notice given a certain number of weeks or months beforehand. The workmen's federation was unwilling to undertake the responsibility of carrying out the first of these demands, and all the others they rejected on principle as constituting a vital attack on the position of the trade unions. The last one especially would cause all settlements of labor disputes to come to an end at the very time of year when workmen were least in demand, and consequently least able to bargain for favorable terms. Their main demands having been rejected, the employers' federation on May 24 declared a general lockout of all men employed in the building and iron industries or others connected with these, such as plumbers, painters, tinsmiths, and the like. The sympathy of the Liberal party, the press, and the general public was with the workmen in this struggle, which the employers had forced on for the purpose of crushing unionism. Leading men of all parties joined with the Social Democrats in a scheme for providing intellectual entertainment and instruction to the workmen during the period of their enforced idleness, and thus preventing them from falling into drunken or slothful habits. Lectures on historical and scientific subjects, dramatic entertainments, poetical recitals, concerts, visits to museums and picture galleries, and courses of reading and instruction were arranged with the assistance of almost all the teachers and professors of Denmark. The workmen, on their part, embraced eagerly the opportunities offered to them and their families for acquiring knowledge and instruction. The permanent trade court on June 24 declared unanimously that the lockout was inconsistent with the expectations the unions were justified in founding on the existing agreements with the employers. Abandoned by their own representatives in this court, the employers' federation, which already had great difficulty in keeping the smaller employers in line, although at first with conditions that were considered unacceptable by the trade unions, agreed to accept the offer of the court to act as a board of conciliation. The workmen's confederation having accepted the proposal at once, a compromise was at length effected in this manner.

Navigation.—The number of vessels engaged in foreign trade entered at Danish ports during 1897 was 32,036, of 2,712,224 tons cargo; cleared, 31,424, of 713,671 tons cargo. Of coasting vessels, 35,389 were entered and 35,431 cleared.

The merchant marine on Jan. 1, 1898, consisted of 44 steamers, of 182,702 tons, and 3,852 sailing vessels above 4 tons, having an aggregate tonnage of 173,406.

Railroads, Posts, and Telegraphs.—The total length of railroads in operation in 1897 was 1,532 miles. The state lines comprised 1,087 miles.

The postal traffic in 1897 was 80,821,201 letters and post cards and 74,403,222 newspapers, books, and samples.

The state telegraph lines on Jan. 1, 1898, had a length of 2,088 miles, with 8,549 miles of wire. There were 597,437 internal, 1,262,734 international, and 149,617 official messages sent during 1897. The telephones, which belong to the Gov-

ernment, had 575 miles of lines, with 1,067 miles of double wire.

Dependencies.—Denmark has colonies in the West Indies, which once were prosperous, but are no longer a source of wealth and commerce (see WEST INDIES). The Danish possessions on the coast of Greenland, having an area of 46,740 square miles and a population of 10,516, are visited by Government vessels, which bring the stores required and take away the products of the fisheries and the chase. The imports in 1897 were valued at 767,000 kroner, and the exports at 368,000 kroner. Iceland is a self-governing dependency, with an area of 39,756 square miles and 70,927 inhabitants. The imports in 1897 were 1,520,000 kroner; exports, 2,972,000 kroner.

DISASTERS IN 1899. Absolute accuracy can not be attained in any general list of accidents and disasters. The reports published of such mishaps are often to be found only in the telegraphic news columns of daily papers, and, save in the case of very great loss of life or property, they are not ordinarily referred to again. The Journal of Commerce and Financial Chronicle of New York prepares carefully revised lists of fires, and the Railroad Gazette, also of New York, performs a like service for railway accidents. The summaries of these, condensed from the columns of the journals named, may therefore be accepted as not far from correct. In regard to marine disasters, only those have been mentioned that have attracted general comment at the time of their occurrence. The long list of missing ships can not properly be inserted here, but it may be mentioned that, on the authority of Capt. A. G. Froud, R. N., no fewer than 10 "tramp" steamers left American ports in January and have since been given up as lost. Probably no such losses occurred in any other month of the year, but the record as it stands is sufficiently appalling, since it involved the loss of several hundred lives and several million dollars. That reasonable care would prevent more than half of the "accidents" here recorded is probably a safe estimate, and this is notoriously true as regards fires, which annually destroy something like \$100,000,000 worth of property, as shown by the monthly summaries printed herewith.

January 1. Sycamore, Ohio, new locomotive engine wrecked on trial trip, engineer killed.

2. Trains in collision, New Concord, Ohio, 2 tramps killed.

4. Water tank bursts in New York, neighborhood flooded, several persons hurt. Train derailed, Jefferson City, Mo., 2 killed; cause, a landslide.

5. Shipwreck: British and French steamers in collision in English Channel, 12 lives lost.

6. Explosion: boiler bursts in a shipyard at Barking, England, 10 killed, 40 hurt.

7. Landslide, British Columbia: Frazer river dammed, its course changed, and farms ruined.

8. Trains in collision, Elk Valley, Tenn., 4 killed, 2 hurt, 2 locomotives wrecked, much rolling stock burned; cause, orders misread.

9. Trains in collision at Sunol, Neb., and Dunellen, N. J., 21 killed, 31 hurt.

10. Trains in collision, Council Bluffs, Iowa, 3 killed; cause, fog.

11. Train derailed, Ingomar, Cal., 1 killed; cause, stray sheep on track.

12. Fire: Memphis, Tenn., dry-goods houses burned; loss, \$450,000.

13. Train wrecked, Gilmore, Ark., 1 killed, 3 hurt.

14. Trains wrecked at Monks, N. J., Benson,

N. C., and Lacosti, Texas, 5 killed, 12 hurt. Shipwreck: British ship *Andelina*, off coast of Washington, 19 lives lost.

15. Trains in collision, Angell, Arizona, 1 killed, 3 hurt, 2 engines and 12 cars wrecked.

17. Destructive floods on the Continent and in the British Islands, lasting several days, property destroyed and live stock drowned.

21. Train wrecked at Great Bend, Pa., 1 killed, 2 hurt.

23. Trains in collision, North Hanover, Ill., 3 killed.

24. Train wrecked, Washington, D. C., 1 killed.

25. Train derailed, Cattaraugus, N. Y., 1 killed, 1 hurt. Fire: Wilkesbarre, Pa.; loss, \$250,000.

29. Explosion in a mine at Cartagena, Spain, 14 killed. Train wrecked, Coalton, Ohio, 2 killed, 6 hurt.

30. Train wrecked, Larrabee Point, Va., 6 hurt.

31. Military train wrecked, Iuka, Miss., 12 soldiers hurt.

Summary of train accidents in January: 96 collisions, 94 derailments, 7 others; total, 197. Killed: 40 employees, 20 passengers, 3 others; total, 63. Hurt: 80 employees, 93 passengers, 3 others; total, 176.

Fires in January: Brooklyn, N. Y., furniture factory, \$300,000; Troy, N. Y., dry goods, \$200,000; Memphis, Tenn., various buildings, \$450,000; Bridgewater, Nova Scotia, stores, \$255,000; New York stores, \$425,000; Chicago, Ill., lumber, \$325,000. Total fires in January, 244; aggregate loss, \$10,718,000.

February 1. Fire: business houses in Columbus, Ohio; loss, \$750,000.

2. Train wrecked by a snowslide, Glenwood Springs, Col., 3 killed, 2 hurt; another at Grand Junction, Iowa, 1 killed.

3. Trains in collision, San Simon, Arizona, 2 killed, 1 hurt; cause, a blinding sandstorm.

4. Train wrecked, Point Pleasant, N. J., 1 killed, 1 hurt.

6. Trains in collision, Imlay City, Mich., 3 killed, 4 hurt.

7. Fire: Winnipeg, Manitoba, hotel and other property; loss, \$450,000. Trains in collision, Antonia, La., 2 killed, 4 hurt; the engineer's watch being slow was the probable cause of the accident. Collision, Indian Creek, Pa., 1 killed, the wrecked trains took fire and were mostly burned.

8. Severe blizzardlike storm over the greater part of the United States east of the Rocky mountains; traffic everywhere impeded at the North and killing frosts in Florida.

10. Fire: Frankfort, Ky., the Executive Mansion burned; loss, \$100,000. Train wrecked, Chickamauga Park, Ga., 1 killed, several hurt.

11. Trains in collision, Butte, Mont., 1 killed, 1 hurt; cause, a cloud of steam from a factory beside the track.

12. Avalanches at Silver Plume and Colorado Gulch, Col., 24 killed. Fire: Yankton, S. Dak., part of insane asylum burned, 12 lives lost. Severe gales and unprecedentedly high tide along the southern coast of the British Isles, many cattle drowned and property destroyed.

13. Destructive storm continues in the Northeastern United States, with excessive cold. Earthquakes in the Middle Central States. Train accidents, most of them caused by the storm, at Fleming Park, Pa., Grove City, Pa., Gallaghersville, Pa., and South Unadilla, N. Y., 5 killed and 10 hurt.

14. Trains wrecked at Kenova, W. Va., Charleston, S. C., Wissahickon, Pa., 5 killed, 10 hurt. Fires in Philadelphia and Chicago; total loss more than \$1,000,000.

15. Fire in the United States Navy Yard, Brooklyn, valuable models and patterns destroyed; loss more than \$1,000,000.

16. Trains in collision, Philadelphia, 1 killed, 5 hurt.

18. Train wrecked at Dixon, Ill., 1 killed, 1 hurt; and at Blossoms, Va., 1 killed, 1 hurt; cause, forgetfulness of orders. Train wrecked in Belgium, 21 killed, 100 hurt.

22. Train wrecked, Lehigh, Pa., 1 killed; cause, a fallen stone on track.

23. Trains in collision at Weed, Wyo., 2 killed, 7 hurt; cause, a defective switch.

24. Fire: Minneapolis, Minn., Tribune building and other property; loss, \$300,000. Trains in collision, Philadelphia, Pa., 1 killed, 8 hurt; cause, misplaced switch.

28. Fire: Holyoke, Mass., hotel and stores burned; loss, \$500,000. Train wrecked, Corinth, Ky., 1 killed; cause, a beam maliciously placed on track.

Summary of train accidents in February: 80 collisions, 92 derailments, 6 others; total, 178. Killed: 35 employees, 2 passengers, 4 others; total, 41. Hurt: 118 employees, 44 passengers, 4 others; total, 166.

Fires in February: Chicago, 4 different fires, loss, \$1,791,000; New York, 3 fires, \$800,000; Holyoke, Mass., stores, \$310,000; Minneapolis, business houses, \$236,000; Muscogee, Mich., sundry buildings, \$400,000; Columbus, Ohio, stores, \$750,000; Philadelphia, factories, \$610,000; Winnipeg, Manitoba, hotel, \$400,000; Toronto, Ontario, stores, \$250,000; Cincinnati, hat and clothing warehouses, \$350,000; Philadelphia, business houses, \$400,000; Port Washington, Wis., factories, \$425,000; Brooklyn, N. Y., navy yard, \$1,000,000. Total fires in February, 279; aggregate loss, \$18,469,000.

March 1. Trains in collision, White Plains, N. Y., 3 killed, 2 hurt; orders misread. Shipwreck: British steamer Labrador, off Tobermory, Scotland.

2. Military train wrecked, Tupelo, Miss., 2 soldiers killed, 6 hurt. Trains in collision, Chicago, Ill., 2 killed, 1 hurt. Fire: Charlotte, N. C., freight depot and cotton presses; loss, \$400,000. Chicago, bookstore burned; loss, \$550,000.

3. Trains in collision, Delphi, Ind., 1 tramp killed.

5. Explosion: naval magazine, Toulon, France, 60 killed, 100 hurt. Train wrecked, Ardenheim, Pa., 2 killed, 2 hurt, 3 locomotives and 12 cars wrecked. Another train wrecked, Westfield, N. Y., 14 hurt.

6. Fire: West Point, Miss., college buildings burned, also cotton presses; loss, \$400,000. Shipwreck: tug James Brown sinks near Philadelphia, 11 lives lost.

7. Disastrous storms in Buenos Ayres, large quantities of wheat destroyed. Train wrecked, Lovett, Pa., 1 killed, 3 hurt.

8. Trains in collision, Plainfield, N. J., 1 killed.

9. Trains in collision in Allegrippus, Pa., 2 killed.

10. Trains in collision, Granger, Ind., 2 killed, 1 hurt.

11. Destructive hurricane on the coast of Queensland, Australia, 411 lives lost.

12. Train derailed, Wayne, Pa., 1 killed, 1 hurt.

15. Explosion: boiler tube of British battle ship Terrible, 1 killed, several hurt.

17. Fire: Windsor Hotel burned, New York, 45 lives lost. Train derailed, Wheeler, Ky., 1 killed, 1 hurt; cause, a landslide. Other wrecks at Volland, Kan., 23 hurt, and at Bronco, Ga., 1 killed, 2 hurt.

18. Cyclonic storm in Arkansas, Mississippi, and Alabama, about 25 lives lost.

19. Trains in collision, W. Va., 1 killed, 2 hurt.

20. Train wrecked, West Seneca, N. Y., 1 killed, 2 hurt; cause, ice in the switch.

22. Trains in collision, New Boston, Mich., 1 killed, 2 hurt; cause, fog.

24. Fire: Cleveland, Ohio, stove works burned; loss, \$450,000.

26. Trains wrecked at Mohrsville, Pa., and Pittsburg, Pa., 5 killed, 1 hurt.

27. Train derailed, Glen Loch, Pa., 1 killed, 9 cattle cars wrecked; cause, a defective switch.

29. Fire: Hartford, Conn., factory burned; loss, \$180,000. Steamboat Rowena Lee sunk near Tyler, Mo., 60 lives lost.

30. Shipwreck: steamer Stella, on Casquet Rocks, British Channel, about 80 lives lost. Train wrecked, Texas Creek, Col., 1 killed.

Summary of train accidents in March: 47 collisions, 55 derailments, 3 others; total, 105. Killed: 31 employees, 3 passengers, 2 others; total, 36. Hurt: 72 employees, 68 passengers, 4 others; total, 144.

Fires in March: Denver, Col., grain, \$180,000; Charlotte, N. C., cotton, \$400,000; West Point, Miss., colleges, etc., \$400,000; Holyoke, Mass., hotel, etc., \$325,000; Jacksonville, Fla., lumber, \$250,000; Chicago, business houses, \$300,000; New York, hotel and stores, \$1,300,000; Amesbury, Mass., opera house, \$185,000; Cleveland, Ohio, stoves, etc., \$275,000; Chicago, felt works, \$400,000. Total fires in March, 197; aggregate loss, \$11,493,000.

April 3. Train wrecked at Rochester, N. Y.; 3 boys stealing a ride mischievously apply the air brakes and wreck several cars.

4. Shipwreck: steamer Chilcat cast away off Eureka harbor, California, 10 lives lost.

5. Train wrecked, Westbrook, Me., 2 killed.

7. Fire: dwelling house burned in New York, 12 lives lost.

8. Destructive flood in the Yellowstone river, Montana, 12 lives lost.

9. Shipwreck: steamers Maria and Kingswell in collision off Tripoli, 45 lives lost.

11. Fire: country home of W. K. Vanderbilt burned; loss, \$250,000.

12. Train wrecked, Flint, Mich., 1 killed.

13. Trains wrecked, Moscow, Idaho, and Mount Dallas, Pa., 2 killed, 1 hurt.

14. Trains in collision, Willock, Pa., 2 killed.

15. Fire: Cleveland, Ohio, business houses burned; loss, \$1,000,000.

20. Train wrecked, Big Rock, Ill., 1 killed, 4 hurt.

21. Train wrecked, Greenwood, Tenn., 1 killed, 1 hurt.

22. Fire: Omaha, Neb., business houses burned; loss, \$200,000.

24. Train wrecked, Gila Bend, Arizona, 2 killed, 2 hurt; bridge broke down, wreck caught fire.

26. Fire: Dawson City, Neb.; loss, \$1,000,000. Destructive tornado in northern Missouri, about 42 killed and 100 hurt.

28. Train wrecked, Oak Lane, Pa., 1 killed.

29. Train wrecked, Chippewa Falls, Wis., 1 killed, 2 hurt.

30. Train wrecked, Rochester, N. Y., 2 killed, 13 hurt.

Summary of train accidents in April: 38 collisions, 74 derailments, 2 others; total, 114. Killed: 18 employees, 2 passengers, 4 others; total, 24. Hurt: 39 employees, 28 passengers, 1 other; total, 68.

Fires in April: New York, dwelling house, \$155,000; Oak Dale, N. Y., dwelling houses,

\$250,000; Oshkosh, Wis., furniture, \$150,000; Cleveland, Ohio, business houses, \$400,000; Mattawaumkeag, Me., tannery, \$150,000; Omaha, Neb., warehouses, \$170,000; Pittsburg, Pa., business houses, \$210,000. Total fires in April, 202; aggregate loss, \$9,213,300.

May 1. Fire: Columbia, S. C., Gen. Wade Hampton's house burned, valuable library and collection destroyed.

2. Train wrecked, Milwaukee, Wis., 1 killed.

4. Fire: Greenville, N. C., sundry houses burned; loss, \$100,000.

5. Train wrecked, Bedford, Ind., 1 killed, 1 hurt.

8. Train derailed, Saunders, Wis., trestle gives way, engine and 40 cars fall into ravine, 1 killed, 1 hurt.

12. Trains in collision, Exeter, Pa., 29 killed, 60 hurt; cause, disregard of signals. Explosion: chlorate, St. Helen's, England, 3 killed, many hurt.

13. Trains wrecked at Reading, Pa., 28 killed, 40 hurt; and at Riddle, Ore., 3 killed and 1 hurt.

14. Fire: Manchester, N. H.; loss, \$100,000. Train derailed, Garrett, Mo., 1 killed, 2 hurt; cause, a stray pony on track.

15. Shipwreck: ship John R. Kelly lost off Port Stanley, Falkland Islands. Train wrecked at Waring, Ga., 1 killed, 3 hurt.

16. Train wrecked at Zehners, Pa., 2 killed, several hurt; cause, a spike laid on the track by a boy. Another at Dupont, Del., caused by a fallen tree, 4 hurt.

19. Shipwreck: bark Samiento, totally disabled at sea.

21. Shipwreck: steamer City of Paris, on the Manacle Rocks, coast of Cornwall (floated off July 11). Fire: town of Poroso, Poland, 12 lives lost.

25. Fire: St. John, New Brunswick; loss, \$500,000.

26. Train wrecked, Cañon City, Texas, a wash-out and waterspout derails the entire train, 1 killed.

27. Train wrecked, Mandan, N. Dak., 1 killed, 7 hurt.

28. Waterloo, Iowa, train wrecked by a wash-out, 7 killed, 40 hurt. Another at Whitesboro, Texas, 2 killed.

29. Train wrecked, Otis, Iowa, 2 killed, 160 cattle drowned.

30. Train wrecked on Chicago Elevated Railway, 40 hurt.

31. Trains wrecked at Paulsell, Cal., and Desplaines, Iowa, 1 killed, 16 hurt.

Summary of train accidents in May: 65 collisions, 108 derailments, 8 others; total, 181. Killed: 22 employees, 35 passengers, 7 others; total, 64. Hurt: 60 employees, 142 passengers, 6 others; total, 208.

Fires in May: Philadelphia, stores, \$205,000; Chicago, lumber, \$430,000; Dawson, Alaska, sundry buildings, \$850,000; Brooklyn, N. Y., mills, \$192,000; St. John, New Brunswick, warehouses, \$500,000; Coney Island, N. Y., sundries, \$150,000. Total fires in May, 162; aggregate loss, \$9,091,000.

June 5. Fire: New Orleans, La., St. Charles Theater burned.

6. Violent storm in Spain, heavy hail falls in Madrid, several persons killed, and much damage done. Train wrecked at Hickman, Col., 1 killed, 1 hurt.

7. Fire: Augusta, Ga.; loss, \$250,000. Train wrecked at Goffs, Kan., 19 hurt.

8. Train wrecked at Saunders, Wis., 2 killed; cause, a defective bridge. Another train wrecked at Grand View, Mo., 40 hurt. Floods in Texas, 25 drowned.

9. Trained wrecked, Kilby, Va., 2 killed, 1 hurt.

11. Train derailed, Geneseo, Ill., 15 hurt. Fire: Armstrong Ordnance Works, Newcastle-on-Tyne, England; loss, \$1,000,000.

12. Tornado in Minnesota and Wisconsin, about 250 killed and 200 hurt.

16. Explosion: Caledonia mine, North Sydney, Cape Breton, 11 killed. Shipwreck by collision, river Oder, Germany, 30 drowned.

21. Violent storm, Nenagh district, Ireland, many fatalities and much damage to crops. Train wrecked at Tip Top, Mo., 1 killed, 1 hurt; cause, a stray cow.

26. Trains wrecked at Canterbury, W. Va., and Haleyville, Ala., 1 killed, 7 hurt.

27. Train wrecked, Deadham, Mass., 1 killed, 1 hurt.

28. Shipwreck: steamer Margaret Olwill lost in Lake Erie, 9 lives lost. Train wrecked, Heckland, Ind., 1 killed, 2 hurt.

Summary of train accidents in June: 100 collisions, 115 derailments, 5 others; total, 220. Killed: 15 employees, 1 passenger, 3 others; total, 19. Hurt: 73 employees, 95 passengers, 5 others; total, 175.

Fires in June: Augusta, Ga., business houses, \$250,000; Laurel, Del., sundry buildings, \$325,000; Toledo, Ohio, freight house, \$300,000. Total fires in June, 152; aggregate loss, \$6,714,850.

July 2. Fire: Summit, N. J.; loss, \$150,000.

4. Continued floods in Texas, mainly in the Brazos river, about 300 lives lost.

6. Train wrecked, Waldron, Mo., 1 killed, 6 hurt.

8. Severe storms of hail, wind, and rain in southern England, much damage to property in the vicinity of Canterbury. Fire: Ludington, Mich., railroad elevator burned; loss, \$120,000. Also at Coulterville, Cal., town nearly destroyed; loss, \$250,000.

10. Collision, Newman, Cal., 2 killed, 11 hurt, all women.

11. Trains in collision, Penfield, Mich., 9 hurt.

12. Electrical storm in middle England; intense darkness prevailed, cattle were killed by wind and lightning, and many persons were injured.

13. Train wrecked, Glendale, Mo., 2 killed, 5 hurt.

16. Fire: Brooklyn Navy Yard, N. Y., uniforms and supplies destroyed to the value of nearly \$300,000.

17. Fire: Mount Vernon, Ind., mill burned; loss, \$100,000. Also at North Bend, Ind., foundry burned; loss, \$100,000.

18. Trains wrecked at Lenzburg, Ill., and Haverhill, Ohio, 4 killed, 7 hurt.

19. Mount Etna in eruption and severe earthquake shocks in Italy.

21. Explosion on British "destroyer" Bullfinch in the Solent, 10 killed.

22. Destructive storm in England and Ireland. Trains in collision, West Moreland, Tenn., 1 killed, 6 hurt, a trestle broke, the train fell 60 feet into a ravine, and the wreck was burned.

23. Explosion of an Austrian torpedo boat, 5 killed. Fire: Toledo, Ohio, wheat elevator burned; loss, \$1,000,000.

26. Fire: many valuable buildings destroyed in Marienburg, Prussia. Trains in collision, Angel, Arizona, 1 killed, 1 hurt.

27. Shipwreck: collision in the Volga river between Russian cargo barge and a passenger steamer, 155 drowned.

29. Train wrecked, Lackawaxen, Pa., 3 killed, 21 hurt.

31. Severe hailstorm in North Dakota, wheat crop damaged to the supposed amount of \$250,000. Trains wrecked at Desplaines, Ill., and Moinogona, Iowa, 5 killed, 10 hurt.

Summary of train accidents in July: 96 collisions, 116 derailments, 5 others; total, 217. Killed: 31 employees, 9 passengers, 5 others; total, 45. Hurt: 100 employees, 94 passengers, 7 others; total, 201.

Fires in July: Brooklyn, 3 fires, loss, \$765,000; Toledo, Ohio, grain, \$845,000; Phoenix City, Ala., sundry buildings, \$200,000; Coulterville, Cal., sundry buildings, \$200,000; Memphis, Tenn., paper mills, \$250,000. Total fires in July, 204; loss, \$11,426,400.

August 3. First report of a notable storm, which began far to the eastward of the American coast and lasted until Sept. 12, during which time it moved first through the West India Islands, and then northward along the coast of the United States, causing almost unprecedented destruction of shipping and loss of life; no accurate returns are obtainable of the number of lives lost or of the number and names of all the vessels destroyed. Estimates place the number of lives at several thousand.

5. Trains in collision, Manassas, Va., 2 killed.

6. By the breaking of a gangplank at Bar Harbor, Me., 20 persons were drowned. Trolley accident, Bridgeport, Conn., 29 killed.

7. Trains in collision, Offut, Tenn., 1 killed, 2 hurt.

8. The hurricane referred to under date of Aug. 3 swept over Puerto Rico; 2,000 lives supposed to have been lost and the island almost desolated. The same is true of neighboring islands in the same latitude. Train wrecked, Los Palos, Cal., 2 killed, 5 hurt.

10. Fire: Dallas, Texas, buildings burned; loss, \$250,000.

12. Fire: Yokohama, Japan, about one square mile of buildings burned, 16 lives lost.

17. Train wrecked at Juvisy, France, 17 killed, 73 hurt.

21. Fire: Victor, Col., business houses burned; loss, \$2,000,000.

28. Fall of the Chicago Coliseum, 9 killed, many hurt; cause, faulty construction of framework. Train wrecked, Barracksville, W. Va., 5 killed.

30. Train wrecked, Montclair, N. J., 3 killed, 14 hurt.

Summary of train accidents in August: 89 collisions, 100 derailments, 4 others; total, 193. Killed: 30 employees, 4 passengers, 5 others; total, 39. Hurt: 95 employees, 43 passengers, 16 others; total, 154.

Fires in August: Newark, N. J., car houses, \$300,000; Glens Falls, N. Y., cement works, \$250,000; Chicago, paint works, etc., \$300,000; Placerville, Idaho, nearly the whole town, \$250,000; Curwensville, Pa., \$400,000; Lockport, N. Y., \$250,000. Total fires in August, 146; total losses, \$9,703,700.

September 1. Mine flooded, island of Chikoku, Japan, 600 lives supposed to be lost.

2. Fire: Kansas City, Kan.; loss, \$250,000. Train wrecked, Denton, Ky., 2 killed, 2 hurt.

3. Hurricane in the Azores, many wrecks and much loss of life. Carriage wrecked by a railway train, Cedar Grove, Wis., 3 killed.

6. Severe electrical storm in London: the city was flooded by a violent downpour of rain, and for a time a frightful darkness prevailed. Trains wrecked at Narrows, Va., 2 killed and 28 hurt; Millers, Pa., 4 killed; Williamson, Pa., 7 killed.

9. Train wrecked, Columbia, S. C., 4 killed.

10. Trains wrecked, Tiona, Pa., and Richmond, Ind., 2 killed, 9 hurt.

11. Train wrecked, Nayang, Pa., 2 killed, 2 hurt.

12. Explosion on board German war ship Wacht,

4 killed, 4 hurt. Train wrecked, Oxford, Iowa, 4 killed, 6 hurt.

13. Hurricane in Bermuda, dockyards damaged and much other destruction of property. Trains wrecked at Baird, Pa., and Famoso, Cal., 6 killed, 6 hurt.

15. Destructive electrical storm in central England. Floods in the Danube river, bridge carried away at Vienna, 20 or more lives lost. Hurricane: Newfoundland, 400 fishing vessels believed to have been lost. Train wrecked, Sterling Run, Pa., 1 killed, 2 hurt.

17. Fire: Promised Land, N. Y., factory burned; loss, \$500,000.

18. Fire: Farnham, N. Y., business section burned; loss, \$250,000. Trains wrecked, Rhine-land, Mo., and Talbot, Tenn., 2 killed, 5 hurt.

19. Fire: Lowville, N. Y., mill burned, also lumber yard; loss, \$250,000.

20. Trains wrecked, Swope Park, Mo., Windham, Minn., 8 killed, 4 hurt. Earthquake in Asia Minor, great mortality.

21. Shipwreck: steamer Scotsman, off Belle Isle, 15 women and children drowned. Earthquake: island of Ceram, East Indies, thousands perish.

23. Trains wrecked, Florence, Col., and Reno, Col., 11 killed, 6 hurt.

25. Earthquake in Alaska. Shipwreck: steamer Adula, coast of Jamaica, 5 lives lost.

26. Earthquake, rain, and landslides in Darjeeling, India, great destruction of life and property. Trains wrecked, Auburn, N. Y., and Oskaloosa, Iowa, 10 killed, 7 hurt.

27. Trains in collision, Paisley, Mont., 4 killed, 2 hurt.

28. Train wrecked, Stroudsburg, Pa., 1 killed, 1 hurt; cause, fog.

Summary of train accidents in September: 116 collisions, 110 derailments, 5 others; total, 231. Killed: 65 employees, 13 passengers, 15 others; total, 93. Hurt: 135 employees, 80 passengers, 11 others; total, 226.

Fires in September: Kansas City, Mo., pork-packing works, \$400,000; Chicago, Ill., sundry buildings, \$300,000; Castorland, N. Y., lumber, \$225,000; Cincinnati, Ohio, sundry buildings, \$500,000; Pumers Point, Va., stores, etc., \$330,000. Total fires in September, 179; aggregate loss, \$12,778,800.

October 2. Trains wrecked, Wilton, Ark., and Penn Haven Junction, Pa., 3 killed, 4 hurt.

6. Train wrecked, Thorpe, Wis., 1 killed, 15 hurt.

7. Typhoon in eastern Japan, 50 lives lost.

8. Floods and tempest in Italy, 40 lives lost in province of Salerno alone.

11. Train wrecked, Short Creek, W. Va., 8 hurt.

12. Earthquake in Java, several thousand lives believed to have been lost.

16. Trains in collision, Granite Cañon, Wyo., 2 killed, 3 hurt.

19. Train derailed, Stoneville, N. C., 3 killed.

20. A violent storm in southern Italy, 3 killed and 20 hurt by lightning.

21. Fire at Fairies, Ala., 14 lives lost. Train wrecked by collision, Neeleysville, Mo., 1 killed, several hurt.

23. Trains in collision, Wabash, Ind., 2 killed, 2 hurt.

26. Shipwreck: British steamer Zurich founders off the coast of Norway, 17 lives lost.

27. Train wrecked, Langtry, Texas, 2 killed, 3 hurt.

28. Train wrecked, Laramie, Wyo., 1 killed, 2 hurt.

30. Disastrous storm on the island of Jamaica, several lives lost and houses swept away by flood.

31. Steam ferryboat Chicago sunk in collision

with steamer City of Augusta in New York harbor. Train wrecked, Crofton, Ky., 6 persons hurt by an explosion of an oil tank, wreck mostly burned.

Summary of train accidents in October: 165 collisions, 121 derailments, 6 others; total, 292. Killed: 26 employees, 4 passengers, 14 others; total, 44. Hurt: 107 employees, 48 passengers, 13 others; total, 168.

Fires in October: Duqueen, Ark., sundry buildings, \$250,000; Des Moines, Iowa, stores, \$435,000; Mill Valley, Cal., forest, \$280,000; Brooklyn, N. Y., warehouses, \$500,000; Oakland, Cal., residence, \$300,000; Hackensack, N. Y., colleges, \$300,000. Total fires in October, 195; aggregate loss, \$12,046,250.

November 1. Shipwreck: schooner William M. Bird, off Cape Romain, South Carolina, 6 lives lost.

2. Trains wrecked, Georgetown, S. C., and Laceyville, Pa., 6 killed, 3 hurt. Shipwreck: United States steamship Charleston, off Luzon, Philippine Islands.

4. Trains in collision, Radnor, W. Va., 2 killed.

8. Trains in collision, Kokomo, Ind., 16 hurt.

9. Train derailed, Alexis, Mich., 13 hurt.

12. Trains in collision, McKee's Rocks, Pa., 3 killed.

13. Trains in collision, Lindley, N. Y., 2 killed.

15. Trains derailed, Riverton, Va., 4 killed.

17. Steamer Patria takes fire and is abandoned in the North Sea.

19. Train derailed, Humboldt, S. Dak., 6 killed, 4 hurt.

22. Trains in collision, McCools, Ind., 1 killed, 4 hurt; cause, fog.

24. Trains wrecked, Georgetown, Ga., and Glenwood Springs, Col., 5 killed.

25. Trains in collision, Coshocton, Ohio, 3 killed, 12 hurt.

29. Trains in collision, Paterson, N. J., 6 killed, 22 hurt. Fire: Lippincott's publishing house, Philadelphia, and other buildings burned; loss, \$1,250,000. Also college buildings at New Athens, Ohio.

Summary of train accidents in November: 122 collisions, 137 derailments, 7 others; total, 266. Killed: 43 employees, 9 passengers, 4 others; total, 56. Hurt: 118 employees, 85 passengers, 1 other; total, 204.

Fires in November: Kansas City, Mo., stores, \$461,000; Waukegan, Ill., factories, \$400,000; Massillon, Ohio, stores, \$250,000; Memphis, Tenn., warehouses, \$290,000; Montreal, Quebec, confectionery and other buildings, \$500,000; Detroit, Mich., stores, \$425,000. Total fires for November, 168; losses, \$11,857,650.

December 2. Destructive tidal wave on the coast of Chili, many shipwrecks.

3. Fire: Clinton, Mass., theater burned; loss, \$150,000.

4. Trains in collision, Salida, Col., 6 killed, 3 hurt. Shipwreck: British army transport Ismore lost in St. Helena Bay.

5. Shipwreck: steamer Niagara founders in Lake Erie, 16 lives lost. Fire: Meridian, Miss., business block burned; loss, \$250,000.

7. Fire: Reading, Pa., factory burned; loss, \$250,000.

9. Explosion: Carbonado, Wash., 32 lives lost.

10. Fire: Augusta, Ga., hotel and other buildings; loss, \$500,000. Also at Enfield, N. H., mill burned; loss, \$100,000.

21. Landslide, Amalfi, Italy, convent, hotels, and many other buildings fall into the sea; about 20 lives believed to have been lost.

23. Explosion: fire damp at Brownsville, Pa.,

40 coal miners killed; cause, authorized use of open lamps.

24. Shipwreck: British steamer Ariosto, near Cape Hatteras, North Carolina, 21 drowned.

25. Earthquake: severe shocks in southern California.

28. Fire: Essen, Germany, the Krupp gun works; damage, \$70,000.

30. Fire: Chicago, sundry buildings burned; loss, \$1,000,000.

Summary of train accidents in December: 127 collisions, 105 derailments, 4 others; total, 236. Killed: 46 employees, 11 passengers, 8 others; total, 65. Hurt: 98 employees, 66 passengers, 7 others; total, 171.

Fires in December: Meridian, Miss., stores, etc., \$250,000; Reading, Pa., factory, \$275,000; New York city, two fires, \$940,000; Augusta, Ga., business houses, \$785,000; Fort Wayne, Ind., stores, etc., \$200,000; Chicago, Ill., stores, etc., \$950,000. Total fires in December, 217; aggregate loss, \$13,260,000. Total for 1899, \$136,773,200.

In the city of New York, according to the report of the Board of Health, there were during the year 1,563 accidental deaths (including those by sunstroke).

DISCIPLES OF CHRIST. A statistical report presented at the annual Christian missionary meetings showed that the present number of churches of the Disciples was 10,298; of communicants, 1,118,396; of Bible schools, 7,765, with 732,642 enrolled pupils; of ministers, 6,339; and of sittings in churches, 1,566,653; amount of expenditures for all benevolences, \$5,454,787; total value of church property, \$18,256,761. These numbers represented a gain for the year of 210 churches, 42,781 communicants, 315 Bible schools, 32,597 pupils in the same, 317 ministers, 50,000 church sittings, \$184,202 in expenditures for benevolent purposes, and \$1,059,264 in value of church property. Besides the sums raised by the Foreign and American Christian Missionary Societies, which are given in another part of this article, \$165,000 had been raised by the State and district missionary societies, making the whole amount contributed for foreign and domestic missions \$567,296. Under the heading of contributed for educational and other benevolences were included \$100,000 for buildings and endowments of schools, \$21,550 for the widows' and orphans' fund, and \$6,651 for ministerial relief, making a total of \$128,201. The sum of \$4,775,000 had been raised further for local church work, the whole making a total of \$5,470,497 for the year's contributions. A table showing the growth of the churches in membership by periods of ten years gave the following numbers, "as near as could be ascertained": In 1830, 12,000 members; in 1840, 40,000; in 1850, 118,000; in 1860, 225,000; in 1870, 350,000; in 1880, 475,000; in 1890, 611,000; in 1895 (five years), 889,019; in 1899, 1,118,396.

The annual meetings of the Missionary and Church Extension Societies were held in Cincinnati, Ohio, Oct. 12 and the following days. The meeting of the American Christian Missionary Society (Domestic) was its fiftieth, and the occasion was marked by a review in the report of its work since it was organized in 1849. The amount of \$860,500 raised and expended during that time through the treasury of the society had been supplemented by \$2,300,000 raised on the mission fields. Forty-six State and district boards of missions had come into being under the care and help of the national board and auxiliary to it. The missionaries of the general board had organized 2,361 churches and baptized 98,360 per-

sons into membership. The State boards reported 295,198 additions to the churches through their missionaries. This society had given to the Church the various other societies—the Christian Woman's Board of Missions, which had raised \$770,000 since its organization; the Foreign Christian Missionary Society, which had raised and expended \$1,141,000 for foreign missions; the Board of Church Extension, which had raised \$236,000 for that work; the Board of Negro Evangelization, which had raised \$68,000 before its offering was united with that of the General Home Board; and the Board of Ministerial Relief, which had raised about \$29,000 for the help of aged and needy ministers. The last year had been the most prosperous in its history. Its receipts had been \$100,550, showing a gain of \$60,662 from the previous year. Of this amount \$29,100 came in the form of special gifts to the permanent fund. In addition to the receipts of the general society, the State boards had received \$294,065. The national board was helping 32 State and district boards of missions, and employed 109 missionaries, who had organized 63 churches and baptized 6,046 believers, while more than 15,000 persons had been baptized during the year under the ministrations of the State boards. Missions were carried on in 20 large cities; in Manitoba, Ontario, and the maritime provinces of Canada; among the Mexicans in San Antonio, Texas; and a mission had been opened in Puerto Rico in November, 1898.

The Board of Ministerial Relief had received \$6,682.

The twenty-fourth annual report of the Foreign Christian Missionary Society showed that the receipts for the year had been \$152,728, indicating a gain of \$21,801 over the previous year. Of this amount, \$56,781 had been contributed by the churches as churches, and \$39,071 by the Sunday schools; \$9,390 were the proceeds of bequests; and \$22,425 had been received on the annuity plan. Ten new missionaries had been appointed to Africa, India, Japan, China, and Cuba, and were to sail after the adjournment of the convention, while 2 others were to go to Japan in the next year. Men were needed to serve as evangelists. A number of new buildings had been erected in the several mission fields. The missions in China, Japan, India, and Turkey returned 71 missionaries, 149 native helpers, 717 members, 465 additions during the year, and 1,570 pupils in the schools, and 11,302 patients had been treated in the hospital connected with the mission in China. The Scandinavian missions returned 168 members at Copenhagen, Denmark; 9,958 in Norway, where a church had been formed in Christiania; and 26 in Malmö, Sweden. A new station had been opened at Lund, Sweden. In England the aggregate membership of the churches and missions was 2,412, and 2,541 pupils were enrolled in the Sunday schools, while the Christian Endeavor Societies had 379 members. The English churches had raised \$17,488 for self-support and \$2,419 for missions. The first station in Africa had been occupied at Bolengi, about

500 miles from the mouth of the Congo and 2° north of the equator, where 3 missionaries were in service. In accordance with the directions of the convention of the previous year, Cuba had been visited by a committee, who had decided to open a mission there at the earliest moment practicable, and a mission to the Philippine Islands was contemplated.

The total receipts of the Board of Church Extension had been \$64,276, a gain over the previous year of \$22,952. Of this amount, \$17,933 were derived from annuities, \$2,152 from bequests, \$16,612 collected on loans, and \$47,664 new receipts. Fifty-eight loans, aggregating \$53,786, had been closed, and 73 loans, amounting to \$41,940, had been granted but not closed. A class of named loan funds, in memory of donors or such other persons as they may designate, had been instituted, the condition of which is the payment of \$5,000 at once or in annual subscriptions through a series of ten years. Seven such funds had already been founded.

The Christian Woman's Board of Missions reported for its twenty-fifth year. Its total receipts had been \$109,089, and it had employed in Jamaica, India, and Mexico, for the whole or a part of the time, 27 missionaries, working in 26 stations, and in the United States 33 missionaries, doing special work in 20 States and the country at large. Besides these, a number of missionaries were laboring in Colorado and parts of Montana, to whom remittances were not made directly.

The total amount of the year's contributions for all the national and State boards is given in the report of the American Christian Missionary Society as having been \$690,017.

Disciples in England.—The nineteenth annual conventions of the Christian Association and Christian Woman's Board of Missions of England were held Sept. 12 to 14. The 15 churches and missions returned 2,412 members, showing a net increase of 172, while 391 persons had been baptized. The total contributions for self-support and benevolences, excluding those for missions, had been £3,583, or £113 more than in the previous year, while the contributions for missions were £455, against £276 in the previous year. The value of church property was given as £29,413. The receipts of the Self-denial League, which has been formed to raise money for the Evangelist fund and the opening of new work, had been at the rate of £75 per member. The Christian Woman's Board of Missions had received more than £200, and had sent boxes to India and to China. A resolution was adopted, at the instance of the Christian Total Abstinence Association, declaring it the opinion of the conference that, "in view of the fearful results accruing from the use of alcoholic liquors and the curse it brings upon the home life and church life of the nation, . . . no Christian should make, buy, sell, or use as a beverage intoxicating drinks, and that Christians should not provide for their children stimulating food which excites the appetite for intoxicating liquors."

E

EAST AFRICA. The coast of Africa between Cape Guardafui and Cape Delgado, over which the Sultan of Zanzibar once exercised sovereign rights, has been divided, by agreement between Germany, Great Britain, and Italy, among those three powers. German East Africa, embracing

an area of about 380,000 square miles, with 4,000,000 inhabitants, is divided on the south from the Portuguese colony of Mozambique by the river Rovuma; from British East Africa on the north by a conventional boundary running northward from the Umbe river to the shore of Vic-

toria Nyanza, deflected so as to include Mount Kilimanjaro in German territory, and continued west of the Victoria lake along 1° of south latitude to the eastern boundary of the Congo Independent State, which forms the western limit of German East Africa. British East Africa, according to the agreement made with Italy, is divided from the protectorate that was asserted by the latter power over Abyssinia and adjacent territories by the Juba river up to 6° of north latitude, by that parallel as far as 35° of west longitude, and by that meridian northward to the Blue Nile. The British sphere, merging into the equatorial and Soudanese provinces, nominally belonging to Egypt under the suzerainty of Turkey, includes the territory acquired from the Sultan of Zanzibar by the British East Africa Company, and afterward taken under direct imperial control, which has an estimated area of 270,000 square miles, with 5,000,000 inhabitants, and the native kingdom of Uganda, the conquest of which exhausted the resources of the British East Africa Company, having an area of about 58,000 square miles and 1,000,000 inhabitants; also the islands forming the sultanate of Zanzibar, with an area of 988 square miles and 210,000 inhabitants. Including the territories between Uganda and the Congo State, which are gradually being subjected to British control, and the former Egyptian conquests, the sphere claimed by Great Britain embraces an area of more than 1,000,000 square miles. British Somaliland, 68,000 square miles in extent, is attached to Aden, which is a dependency of the Indian Government. The Italian sphere, embracing the rest of Somaliland, with a coast line extending from Wahadu to Bandar Ziyada, has an estimated area of 190,000 square miles, with a population of 400,000.

Zanzibar.—The Seyyid, or Sultan, of Zanzibar, Hamud bin Mohamed bin Said, born in 1858, is still the nominal ruler of Zanzibar, but the practical direction of affairs has passed to the British agent and consul general, who acts under the instructions of the Foreign Office in London. The British protectorate was established in 1891, when a mixed administration was constituted, with Sir L. Matthews as Prime Minister. All new acts and additional expenditure require the sanction of the British agent and consul general, Sir Arthur H. Hardinge. The soldiers and police, under command of Gen. Raikes, number 900. The Sultan receives an allowance of about 120,000 rupees a year. The revenue is derived mainly from customs duties and taxes on products of the country, mainly on cloves. All public expenditure must be approved by the British agent as well as the Sultan. The legal status of slavery was abolished on April 6, 1897. The town of Zanzibar, with a population of about 30,000, is the distributing point for nearly all the trade of East Africa, and this is in the hands of the 7,000 Banyan merchants from India, who live there. It was made a free port in 1892, and its commerce includes the exportable produce of the sultanate, as well as of German and British East Africa. The total value of imports in 1897 was £1,399,078, against £1,275,470 in 1896; the value of exports was £1,189,668, against £1,158,806. The imports of cloves, the staple product of the Zanzibar dominions, grown chiefly in Pemba, were £91,942 in value in 1897, and the exports £92,416; imports of rice were £103,410, and exports £62,098; imports of piece goods were £346,451, and exports £322,741; imports of ivory were £108,592, and exports £134,007; imports of copra, etc., were £42,933, and exports

£65,814; imports of rubber were £17,569, and exports £29,470; imports of coal were £70,428; of groceries, £64,353. Other exports were gum of the value of £20,244; skins, £15,371; pearls, £13,179; fish, £12,644. The trade with different countries in 1897 was as follows:

COUNTRIES.	Imports.	Exports.
British India.....	£401,968	£97,908
Great Britain.....	159,894	182,482
Germany.....	91,728	34,591
France.....	26,341	76,841
German East Africa.....	227,039	412,309
British East Africa.....	43,548	105,867
Zanzibar and Pemba.....	143,687	81,161

The number of vessels engaged in foreign trade entered at the port of Zanzibar during 1897 was 150, of 245,368 tons, of which 64, of 109,612 tons, were German; 48, of 75,013 tons, British; 28, of 52,373 tons, French; and 10, of 8,370 tons, of other nationalities.

The decree that the British commissioner obtained from the Sultan, enabling slaves to claim emancipation, resulted in less than two years in the manumission of about 8,000. After that few applied for papers, but the custom grew up for slaves to hire themselves as laborers for wages with their masters or others, especially at harvest time, or to contract with their masters to give service in lieu of rent for land occupied by them. The total slave population of Zanzibar and Pemba is variously estimated between 144,000 and 266,000. The antislavery agitators in England complained that slaves must apply to the Mohammedan *walis* for emancipation papers, and they took serious exceptions to the exemption of concubines from the Sultan's emancipation decree.

British East Africa.—On July 31, 1893, the British East Africa Company abandoned the territory situated between the Tana and the Juba, and the administration reverted to Zanzibar, which had been taken under the protection of Great Britain, in accordance with the Anglo-German convention of July 1, 1890. On June 15, 1895, the British Government declared a protectorate over all the territory between the coast and the limits of Uganda. On June 30, 1895, the British East Africa Company abandoned the coast strip leased from the Sultan of Zanzibar, and the administration passed to the Imperial Government, and was placed under the supervision of the consul general at Zanzibar. On Aug. 31, 1896, the whole territory was made a separate protectorate, under the name of the East Africa Protectorate. It is divided into the coast province, with capital at Mombasa; Ukamba, with capital at Machakos; Tanaland, including Witu, with capital at Lamu; and Jubaland, with Kismayu for its capital. The population of about 2,500,000 includes 13,500 Asiatics and 390 Europeans and Eurasians. Mombasa, the seaport and chief city, has 24,700 inhabitants. The subcommissioner, C. H. Craufurd, has his residence there. The place is connected by a submarine cable with Zanzibar, and with Lamu by a telegraph line. The harbor has been improved by the construction of durable jetties and docks. The revenue of the protectorate for 1897 was £39,186; for 1898, £43,841. An import duty of 5 per cent. is levied under the Brussels act. The principal imports are English and Indian cottons, brass wire, beads, and provisions. The exports are ivory, India rubber, cattle, goats, grain, copra, hides, gum copal, etc. The whole trade is conducted by the Banyan merchants. The total value of imports in 1898 was 4,464,827 ru-

pees, against 3,925,597 rupees in 1897; of exports, 1,087,266 rupees, against 1,172,026 rupees in 1897. The vessels entered at Mombasa in 1898 had an aggregate tonnage of 196,630 tons. The railroad under construction from the port of Mombasa to the coast of Victoria Nyanza will have a total length of about 550 miles, of which 300 miles were completed by May 1, 1899, bringing it to the healthful and populous country of Kikuyu, the exportable products of which will afford some return traffic. In the malarial coast zone the rate of mortality among the Indian coolie laborers was high. No fewer than 28 men were killed by lions before measures were taken to protect the workmen. The supplies for the German settlement on Kilimanjaro are conveyed over the railroad, and the downward traffic in ivory is already considerable. The route of the railroad as originally surveyed by Major MacDonald terminated at the northeast shore of the lake. A

later the official excuse was that the high prices paid for labor on the Uganda Railroad would cause all the slaves, if they were set at liberty, to desert the plantations of their masters and leave the whole coast district uncultivated. Slavery is recognized as legal only in the territory leased from the Sultan of Zanzibar, the 10-mile strip of coast, within which are situated the plantations of the Arab slaveholders. The opinion was given by the Attorney-General of Great Britain in 1897 that it was an offense against British law when British subjects anywhere in the world were themselves concerned in the sending back and restoring to slavery of persons claiming to be free, simply because they were slaves. This was hailed by the members of the Antislavery Society as a final blow to slavery in the protectorate, for no runaway slave could be returned to enforced servitude if the British consul and subcommissioner, sitting as judge of the

GONTE FALLS, ON THE ZAMBEZI.

later survey makes the railroad turn to the southwest and terminate at the southern end of the lake, close to German territory, shortening the route by 100 miles. The sum voted by the British Parliament for the construction of the line was £3,000,000. Of this, £1,700,000 had been spent before September, 1898, when about 170 miles were completed. The cost in the mountainous country beyond the Kikuyu escarpment is certain to be greater, so that the original estimate will be exceeded by a large sum.

The pledge of the British Government, given by Mr. Balfour, that slavery should be abolished on the mainland at the earliest possible moment has for years afforded the theme for embarrassing reminders to the antislavery agitators, especially Bishop Alfred E. Tucker, of the diocese of East Equatorial Africa. The rebellion of Mbaruk furnished for some time a plea for delay. The rebellion in Uganda was put forward as the ground for inaction in the beginning of 1899, and

Mombasa provincial court, did not decide on the rights of the master and had not the power of the protectorate at his back to enforce his decree. In March, 1899, the Attorney-General explained in the House of Commons that he did not mean to say that a British subject was not allowed to express his opinion that a man coming before him in a court had established his right to slaves. The missionaries who harbor runaway slaves formerly refused to admit the policemen sent to return them to their masters, but when the authorities of the protectorate asserted the right to compel missionaries to restore slaves who had fled to their stations they generally allowed them to be taken away. After the Attorney-General uttered his dictum that it was a criminal offense to restore persons to slavery, some of the missionaries declared that they would in the future resist any search for fugitive slaves on their premises. Sir Arthur Hardinge complained that several of the missions encour-

aged slaves to leave their masters by allowing them to have ground to cultivate and build upon without exacting in return either rent or services, but only that they attend church and send their children to school. The chief cause of the discontent of the coast Arabs, which led to the rebellion of Mbaruk and Raschid bin Salim in 1895 and 1896, is the antislavery policy actively pursued by many of the missionaries, and identified with the Government also, since the suppression of the maritime slave traffic was the object of the earliest interference of Great Britain in Zanzibar. The British Government, guided by the reports of Sir Arthur Hardinge, is not yet prepared to abolish slavery on the mainland, although the legal status of slavery has been abolished in Zanzibar. Although slaves have been running away in greater numbers since the rebellion, the condition of slavery is represented in reports as beneficial to the slaves and necessary to the economic life of the country, as even a natural and necessary social relation, because all ordinary Africans feel the necessity of depending on a chief or master. The slave owners in this part of Africa give their slaves a piece of ground to cultivate in return for a part of the produce or for service at stated times, or they allow them to go forth to trade or to work on condition of their handing over a part of their profits or wages. In this relation the slave looks to his master and to his fellow-slaves for care and aid in times of sickness or distress. He occupies a fixed social status, as does also the freedman voluntarily manumitted by his master; one who has obtained his freedom by the intervention of Englishmen, on the other hand, is regarded as an outcast, and is avoided and despised by all. The policy of the British Government was defined in instructions sent by Lord Salisbury to Sir Arthur Hardinge on Feb. 11, 1899, that no British official shall hand back slaves; that the native courts, however, will not be deprived of any powers they exercised before the proclamation of 1890, but in every case the master will be required to prove clearly that the slave has been and is legally owned. In taking over the Government of Zanzibar in 1890 the British Government gave a pledge that all slaves possessed at that date by subjects of the Sultan should remain as they were, and their status should be unchanged.

Uganda.—The British protectorate declared over Uganda on June 19, 1894, was extended in July, 1896, to Unyoro and other countries to the west as far as the agreed boundary of the Congo Independent State, which is 30° of east longitude northward to the water parting of the Nile and Congo basins; and in the east it was made to include Usoga. The protectorate is administered by a commissioner and consul general, E. J. L. Berkeley, although in Uganda there is a nominal king, the infant son of King Mwanga. Close to Mengo, the capital, is the fort of Kampala, where British troops are quartered. Indian soldiery has been introduced to take the place of the Soudanese troops, who mutinied and fled across the Nile. The residence of the commissioner is Port Alice, on Victoria Nyanza. The railroad that is being constructed from Mombasa to the east shore of the lake will have its terminus at Ugove Bay; 260 miles had been completed by Feb. 1, 1899. The soil of Uganda is fertile and adapted for coffee culture. The natives of Uganda, who are divided in religion into Catholics, Protestants, Mohammedans, and heathen, are skillful in ironwork and pottery. The imports in 1895 were valued at 222,006 rupees, ex-

clusive of Government stores; exports, 244,728 rupees.

The first mutiny of the Soudanese troops in Uganda, of whom there were 1,600, constituting at that time the sole military force in the protectorate, was checked by Major MacDonald, who had come to lead an expedition to the source of the Juba and into the Nile country. The mutiny started among the Soudanese companies assigned to him, which were companies that had previously been overworked and not paid up, as the trade goods intended for their pay could not be brought up in time from the coast. Major MacDonald with the loyal Soudanese and a detachment of regulars drove the mutineers out of Uganda to the northward. On the arrival of Indian troops early in 1898, the rebels were pursued and dispersed when on the point of crossing the Nile into Unyoro, where the Soudanese garrisons were known to be ripe for revolt. The departure of Major MacDonald for Lake Rudolf and the head waters of the Juba, followed by that of Major Martyr down the Nile, deprived the protectorate of a part of the available force for maintaining order, though this part consisted largely of Soudanese troops taken over from Emin Pasha, the element which had caused the disturbance, and which it was now the policy to replace with other troops. The Soudanese Uganda Rifles were formerly considered a model corps by the officers who commanded them and obtained from them stanch and efficient service in many difficult situations. In the course of time the men became discontented, because their work was heavy and continuous, their pay and clothing frequently in arrears, the pay smaller than porters earned, scarcely exceeding that of native laborers, and only a fifth as much as soldiers received in the neighboring German protectorate. When the mutineers had been pursued across the Nile and broken up, Mr. Berkeley, the commissioner of Uganda, believed the crisis to be over. The British administration had, however, other foes to cope with besides these Nubian soldiers. Kabarega, the slave-raiding King of Unyoro, whose power was great until his army was severely defeated by the Uganda Rifles at the end of 1893, recovered from that disaster, and in 1895 attacked a British fort. In 1895 his new army was almost annihilated, and from that time he carried on a guerrilla war, moving about with a few hundred followers, stirring up disorders in districts where the British power was not vigorously displayed. Mwanga, the ex-King of Uganda, who had reversed the friendly policy of Mtesa, his father, toward British missionaries and explorers, and in 1885 murdered Bishop Hannington and begun the active persecution of native Christians, was deposed in 1888 and succeeded by his brother Kawewa, who was overthrown by the Arabs. After that Mwanga with British help regained possession of the kingdom, professed Christianity, and expelled the Arabs in 1890. The British control became irksome to him, and the oppression of Catholics and Mohammedans led to a revolt in 1897, in which he joined. After his defeat he fled to German territory, and his infant son was proclaimed King with a regency. In 1898 Mwanga escaped from German surveillance and began an irregular war in the western districts of Uganda, going about with a smaller or greater body of followers, and taking reprisals from the British party. After the departure of Major MacDonald's expedition Kabarega and Mwanga joined forces and entered into communication with the Nubians, who recrossed the Nile to take part in a campaign against the

British. The former campaign that Major MacDonald had conducted against the Soudanese with 17 Indian regulars and 340 Suahilis at the outset, rising to 2,000 of all classes at the close of the operations, had extended over 40,000 square miles. The British forces had the co-operation of the Protestant Waganda and Wasoga chiefs, who commanded 3,300 rifles. The losses on the British side were 280 killed and 555 wounded; those of the Soudanese mutineers and their allies were estimated at 1,300. When the rebellion broke out afresh in the fall of 1898 Uganda was garrisoned with a regiment of Indian troops, 400 faithful Soudanese, and a small force of Suahilis. As Col. Martyr was about to start on his expedition to the Nile two companies of his troops were ordered to remain behind in Unyoro, where the Soudanese mutineers had reappeared. On Oct. 10 Lieut. J. A. Hannington, while marching to Masindi, a fort in the middle of Unyoro with 30 Baluchi soldiers, was attacked by a body of Soudanese and compelled to retreat to the fort at Kisilaza, losing 17 men, their baggage, and some of their arms. The mutineers, who had lost about 100 men, attacked the fort, but withdrew after losing 25 more. Troops were hastily summoned to defend the country against the Nubians, Mwanga's people, and Kabarega's people, who were all joined together, about 300 Soudanese and 600 natives, who had captured three Waganda forts. Another rebel chief joined them later from Buddu, and they returned to the siege of Kisiliza, intending after its capture to march upon Mengo, the capital of Uganda. A mutiny of the Suahili company of the Uganda Rifles added to the complications of the situation, but this was promptly quelled. About this time Lieut.-Col. Evatt arrived with more troops from India. He marched at once to the relief of the beleaguered garrison. The Indian troops in the fort repeatedly repelled attacks of greatly superior forces, inflicting severe losses upon them, and when the re-enforcements arrived the rebels, who were suffering greatly from scarcity of food, were quickly surrounded by various columns of Government troops. The movement of troops was difficult in the jungle grass, 12 feet high and more, that covered the country; but the Waganda auxiliaries could move as fast as the rebels, and made their escape impossible. On Dec. 6 Bilal Effendi, the leader of the Soudanese, was killed in action, 40 prisoners were taken, and the mutineers were broken up and dispersed. The rebellious Roman Catholic chiefs began to make terms of peace. Mwanga was quite disheartened, but he was kept a virtual prisoner by Kabarega. The rebels were driven from point to point, and as they lost ground the British gained allies. The remnant of the rebel forces was finally overtaken and defeated by Col. Evatt on the east bank of the Nile on April 9, 1899. They made a stout resistance, losing 300 men. Kabarega, completely disabled with wounds, was taken prisoner, and Mwanga also. This ended the rebellion. The two chiefs were deported. An entire change in the administration of the protectorate had already been decided upon. Sir Harry H. Johnston, distinguished as an African administrator, was appointed in the place of Mr. Berkeley, but with the power to reorganize the whole system of government, with the title of special commissioner, commander in chief, and consul general. The Waganda, who had aided the British effectually in the last war, were taken into the service as soldiers to replace the Soudanese and the Suahili. The new administrator was no longer unable to communicate with the Lon-

don authorities, but could send and receive dispatches by the telegraph within twenty-four hours.

Major MacDonald started from Uganda with the avowed object of delimitating the British and Italian interests on the river Juba, but the ultimate object of pushing forward into the Nile valley if possible, so as to prevent the French from acquiring a position on the west bank of the Nile. The country north of Mount Elgon as far as Lake Choga was first explored, then the country beyond to the western shore of Lake Rudolf and farther north, where the Abyssinians, in order to forestall the British, had preceded them with an army which had devastated the whole region. On the return march the column

A STREET IN BERBERA.

was beset by the nomadic and warlike Turkhanas. Another column advanced from Mount Elgon through Karamoyo and Bukhara in the direction of Lado, on the Nile, but turned about when it came into the dangerous proximity of a force of mutinous Soudanese, who had escaped from Uganda, up to Lakuka. Capt. Kirkpatrick, while exploring the borders of Karamoyo, was murdered by the Nakwai, who afterward fought a battle with the main force. Another tribe attacked a detachment on Mount Elgon, and shortly afterward the expedition, finding that no supplies had been sent up, started for the coast, arriving at Mombasa on March 4, 1899. The region traversed was in the main a high plateau, healthful, and covered with good pasturage, with mountains rising to 10,000 feet.

A later expedition, under Col. Martyr, had for its object to occupy the country from Uganda

down the Nile to the advanced posts established by Lord Kitchener in the Soudan. With four companies of the Soudanese troops of Uganda who had remained loyal Col. Martyr was ordered to proceed down the Nile by water to Fashoda and establish posts as far as Sobat, so as to control the water way and connect Uganda with the country occupied by the Anglo-Egyptian forces. The expedition advanced as far north as Rejaf, but was unable to make its way down the river, owing to the collection of vegetation, which blocked navigation. Foweira and Fajao, the latter 140 miles north of Uganda, had been occupied by British forces previously. The Martyr expedition established posts at Wadelai and Affuddo, and early in 1899 built Fort Berkeley, on the Nile, 350 miles from Fashoda. The dervishes were on the upper Nile, but at the approach of the English expedition their forces dispersed.

British Somaliland.—The ports of Berbera and Zaila were once occupied by Egypt, but the coast was declared a British protectorate in 1884. The area of the British sphere was originally about 75,000 square miles, but by cession made to the Negus of Abyssinia in 1897 it was reduced to 68,000 square miles. A duty of 5 per cent. is levied on all imports and 1 per cent. on exports, except sheep, goats, cattle, gold, ivory, and civet. The principal imports are piece goods, rice, and dates. The exports are hides and skins, ostrich feathers, cattle, sheep, and gum. The imports in 1898 of Berbera, Bulhar, and Karam were valued at 2,795,750 rupees; exports, 2,447,765 rupees; imports of Zaila, 2,428,700 rupees; exports, 2,807,644 rupees. Indian troops with British officers are garrisoned at the ports.

German East Africa.—The German protectorate is under the administration of an imperial governor, Major-Gen. Liebert, who resides at Dar-es-Salam. The estimate of revenue for 1899 was 5,965,200 marks, of which 100,000 marks came from direct imposts, 1,625,000 marks from customs duties and other taxes, 435,000 marks from administration receipts, and 3,805,200 marks from the imperial treasury. The expenses for salaries are 3,385,633 marks; for stores and materials, 2,244,400 marks; and extraordinary expenditures on public works, 322,000 marks; leaving 13,167 marks for the reserve fund. For 1900 the expenditures are estimated at 8,000,000 marks, toward which the Imperial Government contributes 5,985,000 marks. The Europeans on Jan. 1, 1897, numbered 922, of whom 678 were Germans. The military force consisted of 172 Germans and 1,572 native soldiers, besides a police force of 15 German officers and 482 Askaris. There are 7 Catholic and 3 Protestant missionary societies working among the natives, who are Bantus mixed with other races, and near the coast are intermixed with Arabs. They cultivate bananas, pulse, and maize. German settlers have cocoanut, coffee, vanilla, caoutchouc, tobacco, and vanilla plantations. The value of imports in 1897 was 6,840,731 rupees, against 7,008,287 rupees in 1896; of exports, 3,736,197 rupees, against 3,329,941 rupees. The export of ivory in 1897 was 1,107,000 rupees in value; of caoutchouc, 851,000 rupees. Other exports are mtama, sesame, copra, tallow, copal, rhinoceros horns and teeth, and tobacco. Of the imports 1,841,000 rupees came from Germany, 572,000 rupees from Great Britain, 2,813,000 rupees from India, 272,000 rupees from Arabia and Persia, 105,000 rupees from Zanzibar, and 1,238,000 rupees from other countries. Of the exports 2,871,000 rupees went to Germany, 831,000 rupees to Zanzibar, and 234,000 rupees to other countries.

Italian Somaliland.—The sultanate of Obbia was taken under Italian protection in February, 1889, and in April of the same year the protectorate was extended to the Mijertain Somalis. In August, 1892, the Sultan of Zanzibar ceded to Italy the whole coast from Obbia to the Juba river. The Benadir coast was placed under the control of a commercial company in 1896 for a term of fifty years. The treaty of Adis Abeba restored to Abyssinia the interior, restricting the rights of Italy to a coast strip of 180 miles, extending farther on the Juba river so as to take in Logh. The coast stations of Brava, Merka, Mogadocio, and Warsheikh are within the Italian sphere.

ECUADOR, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 30 members, 2 from each province, elected for four years, and a House of Representatives of 33 members, 1 to 30,000 of population, elected by the votes of all adult male Catholics able to read and write, for the term of two years.

The President of the republic is Gen. Eloy Alfaro, elected for the regular term of four years in January, 1897. The Vice-President is Manuel B. Cueva. The Cabinet at the beginning of 1899 contained the following members: Minister of the Interior, Police, Worship, and Public Charity, Dr. R. Gomez; Minister of Foreign Affairs, Justice, Public Instruction, and Immigration, B. Alban Mestanza; Minister of War and Marine, Gen. N. Arellano; Minister of Finance and Acting Minister of Public Works, R. Valdivieso.

Area and Population.—The area of the republic is about 120,000 square miles. The population is estimated at 1,271,861. The whites number about 100,000; mixed races, 300,000; Indians, 870,000. The Galapagos Islands, area 2,400 square miles, have about 200 inhabitants. Quito, the capital, contains about 80,000 inhabitants.

Finances.—The revenue for 1898 was estimated at 9,093,551 sucres, and expenditure at 11,005,141 sucres, the same as for 1897. About 70 per cent. of the revenue is derived from customs, 15 per cent. from taxes on real property and on cacao, rum, and tobacco, 6 per cent. from the gunpowder and salt monopolies, and 9 per cent. from excise duties, rents of state property, and post-office receipts.

The foreign debt, which was scaled down in 1892 from over £2,000,000 to £750,000, amounted in 1898 to £693,160, but interest had been suspended since 1896. The internal debt amounts to 7,500,000 sucres. In 1898 the Guayaquil and Quito Railroad Company agreed to assume the foreign debt in return for special privileges. This is an American corporation. The Government had arranged with the English holders of the foreign debt to pay 4 per cent. interest and 1 per cent. sinking fund on 35 per cent. of the outstanding amount. The railroad company agreed to assume this obligation, and arranged with the bondholders to exchange 6-per-cent. railroad bonds, with 1 per cent. amortization, for one half of the reduced Government bonds, and to deposit in London £12,500 a year, representing the 4 per cent. interest and 1 per cent. sinking fund on the whole amount of the foreign debt that the Government had agreed to pay, but which the company proposed to apply to the interest and rapid reduction of the railroad bonds given in exchange for half this debt, while the other half would be amortized by the sinking fund of 1 per cent.

The Army.—The regular army consists of 4 battalions, 2 columns of light infantry, a regiment of cavalry, a brigade of field artillery, and

a brigade of fortress artillery, having a total strength of 3,341 officers and men. The National Guards number about 30,000.

Commerce and Production.—The chief commercial product is cacao, of which 14,800 tons were sent down to Guayaquil in 1897. Coffee is cultivated also with success. Other agricultural products are rice and sugar. The rubber trees are disappearing from accessible parts of the forest, but lately attention has been given to replanting. Gold is washed profitably by the natives, and an English and an American company are engaged, the one in crushing quartz and the other in hydraulic mining. The country is also rich in petroleum, coal, iron, lead, and copper, and has some silver mines in profitable operation. The chief imports are cotton and other cloth and provisions. The total value of imports in 1895 was 8,520,000 sucres. The exports were valued at 11,562,740 sucres in that year, 10,889,190 sucres in 1896, and 12,176,280 sucres in 1897.

Navigation.—The port of Guayaquil was visited in 1897 by 190 vessels, of 265,208 tons, of which 100, of 140,621 tons, were British. The number of coasting vessels was about 2,000.

Railroads and Telegraphs.—An American company in 1896 undertook to carry on to Sibambe the railroad long before completed from Duran, opposite Guayaquil, for 58 miles to Chimbo.

The telegraph lines have a total length of 1,242 miles.

Attempted Revolution.—In January, 1899, the exiled Clerical leaders collected a large force beyond the border in Colombia for the purpose of invading Ecuador, rousing their partisans to insurrection and overthrowing the Alfaro administration. The Government was fully prepared. Its forces met the invading rebels at San Aneja on Jan. 23, and a pitched battle was fought which lasted all day. The victory rested with the Government, but only after desperate fighting, with severe losses on both sides. More than 600 men were killed and several hundred mortally wounded. The insurgents in the end were put to flight, leaving 400 prisoners in the hands of the Government troops.

EGYPT, a principality in northern Africa, tributary to Turkey. The government is an absolute monarchy of the Mohammedan type, though the throne passes by the European law of primogeniture, and the Khedive, or Viceroy, is advised by a Council of Ministers. The reigning Khedive is Abbas Hilmi, born July 14, 1874, who succeeded his father, Mehemet Tewfik, on Jan. 7, 1892. Since the intervention of Great Britain for the suppression of the military revolt of 1882 the country has been occupied by a British army, and since Jan. 18, 1883, an English financial adviser, who has a seat in the Cabinet, exercises the right to veto any financial measure and has a dominating influence in all important acts of government. The events that took place in 1881 and 1882, consequent upon the bankruptcy of the Egyptian treasury, led to a conference of the powers at Constantinople, where the principal powers signed a protocol by which they bound themselves to seek no territorial advantage or the concession of any exclusive privilege. But England, owing to the progress of the insurrection headed by Arabi Pasha, intervened by force of arms, whereupon the conference dissolved. Since then successive prime ministers of England have given assurances that Great Britain would evacuate Egypt as soon as Egypt should be able to maintain a firm and orderly government.

The Cabinet of the Khedive, which was constituted on April 16, 1894, was composed in the beginning of 1899 of the following members: President of the Council and Minister of the Interior, Mustapha Fehmi Pasha; Minister of War and Marine, Mohammed Abani Pasha; Minister of Public Works and of Public Instruction, Hussein Fakhry Pasha; Minister of Foreign Affairs, Butros Ghali Pasha; Minister of Finance, Ahmet Mazlum Pasha; Minister of Justice, Ibrahim Fuad Pasha.

Area and Population.—The total area of Egypt, including the desert regions, is 400,000 square miles, but only 12,976 square miles in the valley and delta of the Nile are settled and cultivated. The sedentary native population in June, 1897, was 9,047,905; nomads, 573,974; foreigners, 112,526; total population, 9,734,405, comprising 4,947,850 males and 4,786,555 females. Of the foreigners 38,175 were Greeks, 24,467 Italians, 19,557 British, 14,155 French, 7,117 Austro-Hungarians, 3,193 Russians, 1,301 Persians, 1,277 Germans, and 3,284 of other nationalities. Not included in the enumeration were Siwa Wahat, with 5,000 sedentary Egyptians; Dongola, recently reconquered, containing 53,037 sedentary and 3,389 nomadic inhabitants; or Suakin, containing 15,378 sedentary Egyptians and 335 foreigners. The increase in population since 1882 has been at the rate of 2.76 per cent. per annum. The population of the principal towns in 1897 was: Cairo, 570,062; Alexandria, 319,766; Tantah, 57,289; Port Said, 42,095; Assiout, 42,012.

Finances.—The budget for 1899 makes the total revenue £ E. 10,600,000, of which the land tax produced £ E. 4,661,300, other direct taxes £ E. 132,700, customs £ E. 800,000, tobacco £ E. 1,000,000, octrois £ E. 210,000, salt £ E. 183,000, fisheries £ E. 60,000, navigation dues £ E. 57,000, stamps and registration £ E. 38,000, various duties £ E. 32,000, railroads £ E. 1,920,000, telegraphs £ E. 47,000, port of Alexandria £ E. 145,000, other ports £ E. 2,000, post office and postal steamers £ E. 116,000, lighthouses £ E. 70,000, gold assay office £ E. 6,000, Ministry of Justice £ E. 480,000, various ministries £ E. 25,000, exemption from military service £ E. 100,000, interest on deposits £ E. 30,000, Government property £ E. 95,000, Suakin £ E. 12,000, deductions from salaries for pension fund £ E. 62,000, transfer from reserve fund to cover reduction of the land tax £ E. 216,000. The total expenditure for 1899 was estimated in the budget at £ E. 10,560,000, of which the civil list of the Khedive and appanages required £ E. 253,861, Council of Ministers £ E. 4,122, Legislative Council £ E. 8,456, Ministry of Foreign Affairs £ E. 11,116, Ministry of Finance £ E. 87,147, Ministry of Public Instruction £ E. 107,964, Ministry of Interior £ E. 394,195, Ministry of Justice £ E. 395,623, Ministry of Public Works £ E. 637,903, general expenses of ministries £ E. 100,678, provincial administrations £ E. 321,790, customs £ E. 77,246, coast guard £ E. 96,143, octrois £ E. 27,295, salt, etc., £ E. 46,810, fisheries £ E. 1,400, navigation dues £ E. 2,297, railroads £ E. 956,726, telegraphs £ E. 44,000, port of Alexandria £ E. 31,716, other ports £ E. 3,565, post office and postal steamers £ E. 107,589, lighthouses £ E. 27,076, gold assay office £ E. 2,597, Ministry of War £ E. 439,570, army of occupation £ E. 84,825, Government of Suakin £ E. 120,517, pensions £ E. 439,000, Turkish tribute £ E. 665,041, Daira Khassa £ E. 34,000, Moukabala £ E. 150,000, interest and exchange £ E. 20,860, domains deficit £ E. 60,000, expenses of Caisse de la Dette

£ E. 35,000, service of guaranteed loan £ E. 307,125, preference debt £ E. 1,003,056, unified debt £ E. 2,182,906, suppression of *corré* £ E. 250,000, unforeseen expenses £ E. 32,000, economy from conversion of the privileged debt £ E. 265,037, Government share of receipts in excess of expenditures £ E. 415,887, and Soudan deficit £ E. 317,255.

The revenue for 1897 was £ E. 11,092,564 and expenditure £ E. 10,659,257, leaving a surplus of £ E. 433,307. For 1898 the revenue was estimated at £ E. 10,440,000, and expenditures at the same amount. The extraordinary expenditure occasioned by the reconquest of the Soudan was charged against the special reserve fund, absorbing that and leaving a deficit of £ E. 666,000 at the end of the calendar year 1898. The general reserve fund at the beginning of 1898 amounted to £ E. 3,831,749; the fund derived from economies from conversions, £ E. 2,767,262. The charges on account of debts of all kinds, including Turkish tribute and the Moukabala, the internal debt extinguishable by an annual payment of £154,000 sterling till 1930, amounted for 1899 to £ E. 4,723,031, or £4,845,800 sterling. The charges on the debts managed by the Caisse de la Dette were £3,930,280 sterling for 1898. The amount of these debts on Jan. 1, 1898, was £103,863,940 sterling, of which £55,971,960 represent the 4-per-cent. unified debt, £29,393,580 the 3½-per-cent. privileged debt, £8,558,100 the 3-per-cent. guaranteed loans, £6,431,500 the 4-per-cent. Daira Sanieh loan, and £3,508,800 the 4½-per-cent. domains loan.

The Army.—After the disbandment of the Egyptian army in 1882 a new army was organized, to be commanded by a British general with the rank and title of sirdar. Major-Gen. Kitchener, who after the defeat of the Khalifa at Omdurman in 1898 was elevated to the peerage as Lord Kitchener of Khartoum, is the present sirdar. Under the military law of Dec. 22, 1882, supplementing the law of Aug. 5, 1880, all Egyptians, with the exception of priests, professors, and students, are liable to serve from the age of twenty-one six years in the active army, passing then into the *redif* for five years, and lastly for five years into the territorial reserve. Exemption can be obtained by paying £ E. 20. The peace effective of the army must not exceed 18,000 men. The effective authorized in 1898 was 664 officers, 712 employees, and 13,685 men, formed in 13 battalions, 9 squadrons, and 7 batteries of 6 guns, with 1,300 horses, 1,700 camels, and 310 mules.

The Egyptian police in 1898 numbered 23 European and 67 native officers, 240 employees, and 6,106 men. It is composed of soldiers of the *redif* and in part of foreigners. The coast guard numbered about 50 officers and 1,000 men.

The British army of occupation, for the expenses of which the Egyptian treasury provides £87,000 a year, had in the beginning of 1899 a strength of 5,553 men.

Commerce and Production.—The cotton crop in 1896 was 5,879,479 kantars of 99 pounds. The sugar crop in 1897 amounted to 72,918,250 kantars. There are 3,779 villages, cultivating 4,961,402 feddans, the feddan being equal to 1.03 acre. In 2,444 of the villages cotton is grown. The number of date trees is 3,452,674. The cattle and farm animals, including camels, number 1,068,860. Of the total cultivated area nearly three fourths are *Kharaji* lands, subject to an average tax of 22s. a feddan. The rest of the lands are mostly *ushuri*, subject to tithes averaging 7s. a feddan. The *Wakf* lands, belonging to the mosques, are

leased at a moderate rent, and the tenants may sell their leases or transmit them to their heirs. All cultivators must pay about 4s. per feddan annually for materials necessary to keep the irrigation system in order, and may be required to give their labor to keep the Nile embankments in repair or to watch them in flood time, although for other purposes the *corré* has been abolished. Of a total area of 4,721,300 feddans cultivated in 1894, holders of less than 5 feddans, 513,080 in number, possessed 933,700 feddans; 75,130 holders had 552,700 feddans, divided into farms of between 5 and 10 feddans; 61,740 holders had between 10 and 50 feddans each, the total area being 1,234,200 feddans; and 11,430 larger proprietors possessed 2,000,700 feddans. Of the last many were British corporations and investors. The lands of the fellahin are mortgaged to a great extent, and many former proprietors have lost their properties and fallen into the condition of laborers. Next to cotton and sugar, the most important crops are wheat, maize and durrah, clover, beans, barley, lentils, rice, fenugreek, onions, potatoes, melons, lupin, peas, flax, henna, indigo, castor oil, and sesame.

The total value of the imports in 1897 was £ E. 10,003,672, and of exports £ E. 12,321,220. The imports of specie, not included in the above, were £ E. 2,921,722; exports, £ E. 2,369,479. The imports of cotton cloth were £ E. 1,798,600 out of the total value of £ E. 3,526,666 for textile manufactures and materials; imports of cereals and vegetables, £ E. 1,190,409; of coal, wood, etc., £ E. 1,178,954; of metals and metal manufactures, £ E. 1,128,897; of spirits, oils, etc., £ E. 636,303; of tobacco, £ E. 521,518; of provisions and drugs, £ E. 389,673; of animals and animal food products, £ E. 374,848; of dyes, etc., £ E. 253,872; of chemicals, £ E. 252,212; of glass, stone, lime, etc., £ E. 235,238; of leather goods, leather, and skins, £ E. 174,132; of books, paper, and rags, £ E. 145,573; of various animal products, £ E. 64,611; of miscellaneous goods, £ E. 524,766. The exports of textiles were of the value of £ E. 8,989,445, raw cotton amounting to £ E. 8,915,640; exports of cereals, vegetables, etc., £ E. 2,389,630; of provisions and drugs, £ E. 645,928; of skins, leather, and leather goods, £ E. 89,244; of animals and animal food products, £ E. 49,081; of other animal products, £ E. 35,014; of metals and metal goods, £ E. 26,172; of wood, coal, cane work, etc., £ E. 18,700; of rags, paper, etc., £ E. 14,592; of spirits, oils, etc., £ E. 14,308; of chemical products, £ E. 8,715; of stone, lime, glass, etc., £ E. 1,463; of miscellaneous goods, £ E. 25,177.

The commerce in 1897 was distributed among various countries as follows:

COUNTRIES.	Imports.	Exports.
Great Britain	£ E. 8,536,425	£ E. 5,932,078
France	1,237,115	1,119,870
Russia	878,462	1,732,918
Turkey	1,534,535	362,481
Austria-Hungary	752,438	459,306
America	118,073	970,680
Italy	417,199	417,676
Germany	299,551	418,600
Belgium	500,282	37,624
British colonies in the East	406,572	64,248
Spain	2,498	274,217
China and the far East	99,295	26,258
British Mediterranean colonies	114,518	8,407
Greece	57,678	21,414
Morocco	49,541	.....
Persia	29,137	1,442
Other countries	478,921	484,664
Total	£ E. 10,062,154	£ E. 12,321,220

Great Britain imported from Egypt in 1896 raw cotton of the value of £6,484,450 sterling, cotton seed of the value of £1,801,079, beans of the value of £227,716, and sugar of the value of £94,829; and exported to Egypt cotton goods of the value of £1,722,955, coal of the value of £899,005, iron of the value of £409,172, and machinery of the value of £249,479.

Navigation.—The number of vessels entered at the port of Alexandria in 1897 was 2,203, of 2,267,120 tons, of which 657, of 1,034,019 tons, were British; 139, of 280,359 tons, French; 140, of 242,252 tons, Austrian; 100, of 204,087 tons, Italian; 83, of 179,049 tons, Russian; 777, of 126,456 tons, Turkish; 184, of 82,166 tons, Greek; 35, of 61,369 tons, German; 19, of 33,365 tons, Swedish and Norwegian; and 49, of 15,998 tons, of other nationalities. The total number cleared was 2,143, of 2,270,836 tons, of which 663, of 1,046,886 tons, were British; 139, of 278,333 tons, French; 141, of 243,921 tons, Austrian; 119, of 206,927 tons, Italian; 86, of 185,572 tons, Russian; 714, of 111,704 tons, Turkish; 184, of 85,449 tons, Greek; 35, of 59,946 tons, German; 19, of 29,317 tons, Swedish and Norwegian; and 45, of 22,781 tons, of other nationalities.

Railroads, Posts, and Telegraphs.—The total length of railroads in operation on Dec. 31, 1898, was 1,238 miles, of which 1,166 miles belonged to the Government. Of the total, which does not include 390 miles on the Daira Sanieh estates nor other agricultural railroads, nor the military railroad recently constructed in the Soudan, 825 miles were in the delta and 413 miles in Upper Egypt. The Government had under construction 226 miles, while private companies were building 64 miles, and had concessions for 230 miles in the delta. During 1897 there were 10,742,546 passengers conveyed on the state railroads, and 2,796,096 tons of freight. The gross receipts were £ E. 1,982,883, and the operating expenses £ E. 859,523; net receipts, £ E. 1,123,360.

The post office in 1897 carried 11,300,000 internal and 2,250,000 foreign letters and postal cards, 7,000,000 internal and 980,000 foreign newspapers, and 173,000 internal and 56,000 foreign parcels. There were 509,500 post-office orders and remittances, representing a total sum of £ E. 16,922,000.

The Government telegraph lines on Jan. 1, 1898, had a total length of 2,058 miles, with 8,770 miles of wire. The number of messages sent during 1897 was 2,498,834.

Suez Canal.—The number of vessels that passed through the canal in 1897 was 2,986, of 11,123,403 tons, of which 1,905, of 7,389,237 tons, were British; 325, of 1,194,106 tons, were German; 202, of 807,995 tons, were French; 206, of 532,272 tons, were Dutch; 78, of 265,231 tons, were Austrian; 44, of 218,514 tons, were Russian; 48, of 199,695 tons, were Spanish; 71, of 198,161 tons, were Italian; 36, of 165,425 tons, were Japanese; 48, of 117,794 tons, were Norwegian; 7, of 7,770 tons, were Turkish; 3, of 6,027 tons, were American; 3, of 5,916 tons, were Chinese; 3, of 5,344 tons, were Egyptian; 2, of 4,457 tons, were Siamese; 2, of 1,954 tons, were Danish; 1, of 1,648 tons, were Swedish; and 1, of 891 tons, were Mexican. The number of passengers was 191,224. The gross receipts were £2,913,222 sterling. The loan and share capital was 463,120,739 francs on Jan. 1, 1898, besides which 151,174,307 francs of earnings have been applied to improvements. The net profits in 1897 were 39,315,531 francs. The amount distributed in dividends was 40,913,803 francs.

The number of vessels that passed through the

canal in 1898 was 3,503, of 9,238,000 tons, of which 2,295 vessels were British, 356 German, 221 French, 193 Dutch, 85 Austrian, 74 Italian, 54 Turkish, 49 Spanish, 48 Russian, 47 Norwegian, 46 Japanese, 10 Egyptian, 8 Danish, 4 American, 4 Chinese, 3 Portuguese, 2 Greek, 1 Roumanian, and 1 Argentinian. The receipts amounted to 87,906,000 francs. The number of passengers who went through the canal was 219,000. The capital expenditure on improvements was 5,022,000 francs.

The Mixed Tribunals.—The charter of the mixed tribunals expired on Feb. 1, 1899, and after their decision regarding the diversion of the reserve fund of the Caisse de la Dette to meet the expenses of the Soudan campaign the English resolved upon the reorganization of these tribunals. The charter is given for a term of five years. The Egyptian Government addressed a circular note to the European powers, calling attention to the expiration of the charter. An international commission met at Cairo in April, 1898, to consider and report on the Government proposals. In December, 1898, an extension of one year was proposed in order to give time to consider points of divergence, also the question of the jurisdiction to be given to the tribunals in cases of fraudulent bankruptcy. The powers were slow in replying to the last circular, only six of the fourteen powers interested having sent replies prior to January, 1899. As the charter would expire with that month, the Egyptian Government made concessions on sundry points. The Government had asked that the competence of the tribunals should be determined entirely by the nationality of the actual parties to suits, not by the mixed character of the interests involved. The subcommission partly approved the Egyptian demand, but refused to interfere with the jurisdiction of the tribunals over *sociétés anonymes* and over the administrations of the Daira Sanieh, the railways, and the Alexandria municipality. The Egyptian Government agreed that *sociétés anonymes* should remain entirely under the jurisdiction of the tribunals, but demanded that the Daira Sanieh, the railways, and the municipality of Alexandria should not remain subject to them in questions concerning natives. The Government agreed to renew the charter for five years if this last demand were accepted. The most important changes in the commercial code are the power to grant permission to a debtor of good faith to manage his own business, without subjecting him to the inconvenience of being declared bankrupt; the institution of a delegation of creditors, who are permitted to appoint from one to three delegates to watch over the receiver and examine books and documents; and the restrictions placed upon receivers in the realization of assets, they having hitherto had absolute power, and frequently laid themselves open to charges of grave abuse. Under the new order they are obliged to submit their operations to the judge in bankruptcy for approval. The mixed tribunals will hereafter have power to inflict from one to five years' imprisonment on fraudulent bankrupts and their accomplices. In revising the penal code unremunerated labor for the Government has been substituted for simple imprisonment in default of payment of fines, and the English ticket-of-leave system was introduced for well-conducted convicts. The project of revising the Mekhemeh Sherieh, which is the highest religious court, met with strenuous opposition from the native Legislative Council. In hope of reforming the maladministration of justice in the religious courts, two judges from the native appeal court were appointed to sit on the bench

with three judges of the religious court. The Grand Mufti and the Grand Cadi pronounced against this as contrary to the Mohammedan religion. The Government, after considering the grounds of opposition, decided to advise the Khedive to exercise his authority, and accordingly a decree was signed enforcing the reform. The Cadi's court will be composed of six judges, three to be nominated by the Khedive, two selected from the native court of appeal, and the Cadi presiding. Judgments are to be rendered by a majority of the five presided over by the Cadi. The Mekhemeh, or religious courts, show a disinclination to abandon their old methods, and continue to throw out a large number of cases, while judging only a few. A diminution of serious crimes has taken place since 1896, however, and the proportion of convictions to cases tried has increased. The Government has decided to accept all the Assembly's suggestions for the reassessment of the whole of the land of Egypt. The unsatisfactory work of the mixed tribunals in Cairo led to the forming of an additional chamber of the court, with judges from Alexandria and Mansourah, to facilitate the clearing up of business that has accumulated. The mixed tribunals do nearly five sixths of the registration of deeds and similar formalities that do not concern judicial tribunals in other lands.

The Soudan.—Early in January, 1899, Lord Cromer laid down to the assembled sheikhs at Omdurman the principles on which the Soudan will be governed. The government will be by the Queen of England and the Khedive of Egypt, and the sole representative of both sovereigns was at that time the sirdar of Egypt. An agreement was signed by Lord Cromer and Boutros Ghali on Jan. 19 confirming this system of administration, and also defining the term Soudan, which means all territories south of 22° of north latitude which had never been evacuated by the Egyptian garrisons and those provinces which were administered by the Government of the Khedive previous to the rebellion, and were then temporarily lost to Egypt, and have since been reconquered by the two governments acting together, or might be reconquered in the future. The British and Egyptian flags are both to be used on land and sea throughout the Soudan, except in the town of Suakin, where the Egyptian flag only is used. One officer alone shall have supreme military and civil command. He is termed the Governor General of the Soudan, and is appointed by khedivial decrees. Laws, orders, and regulations for the good government of the Soudan, and for the holding, disposing, and devolution of property may be made, altered, or abrogated by proclamation of the Governor General, who shall notify the British agent in Cairo and the President of the Council of Ministers. Laws, orders, and regulations so issued may apply either to the whole or to any part of the Soudan, and may alter or repeal any existing law, either by explicit statement or by implication. No law or decree enacted hereafter can apply to the Soudan without the permission of the Governor General. No special privileges will be given to any one nationality in regard to trading or holding property in the Soudan. Import duties are not payable on goods from Egypt, but may be levied on goods entering the Soudan from Suakin or other ports on the Red Sea. Duties on goods leaving the Soudan will be prescribed from time to time by proclamation. The mixed tribunals will have no jurisdiction in the Soudan, which is under martial law. No consuls or consular agents are allowed to reside in the

Soudan without the consent of the British Government. The importation of slaves is prohibited, and special attention will be given to the enforcement of the Brussels act of July 2, 1890, relative to the import and sale of liquors and firearms. On Jan. 5 Lord Cromer laid the foundation stone of the Gordon Memorial College at Khartoum, built with funds subscribed in Great Britain by all classes of the population in response to Lord Kitchener's appeal. The Soudan budget for 1899 shows £ E. 39,500 of local receipts and £ E. 356,755 of expenditure, the balance of £ E. 317,255 being provided from the Egyptian treasury. The expenditure was distributed as follows: Khartoum central administration, £ E. 4,700; finance, £ E. 8,020; justice, £ E. 1,700; sanitation, £ E. 2,976; schools, £ E. 1,984; military garrison, £ E. 2,237; buildings and repairs, £ E. 5,000; post office, £ E. 3,000; telegraphs, £ E. 4,000; railways, £ E. 50,000; salaries of 6 provincial governors and 64 other officials, £ E. 18,032; district police, composed of 123 officers and 682 men, £ E. 21,100; religious tribunals, £ E. 2,424; military garrisons in the provinces, £ E. 17,569; prisons, £ E. 2,168; military operations, £ E. 197,455; provincial administration of Dongola, £ E. 12,426; of Berger, £ E. 12,426; of Kassala, £ E. 12,426; of Sennar, £ E. 8,354; of Fashoda, £ E. 8,354; of Khartoum, £ E. 21,127.

After the battle of Omdurman on Sept. 2, 1898, and the retirement of Abdullah, the Khalifa, who narrowly escaped capture in the battle in which his forces were shattered and his power overthrown, several attempts were made to take him prisoner during his retreat in the direction of El Obeid, but he evaded the pursuing detachments. He remained in the neighborhood of El Obeid for some months, raiding the Arab tribes of the district for food, and gathering together what he could of his scattered forces that remained loyal. In the beginning of 1899 he began to move northward through Kordofan toward the posts held by Anglo-Egyptian garrisons. When the British forces took possession of Omdurman they destroyed the tomb of the Mahdi, whose remains were thrown into the Nile, an act which aroused indignation in Europe as well as in Egypt and the Soudan. The skull alone was preserved, and this was reinterred at Wady Halfa. Lord Kitchener explained afterward that the desecration of the tomb and destruction of the remains of the false prophet was a political necessity on account of the fanatical superstition in which the tomb and body of the Mahdi were held by the followers of his religion.

The Khalifa when he went to El Obeid subsisted on the large supply of grain which he had stored there, and had a large treasure also and quantities of ammunition, previous to the military disaster at Omdurman. These resources that he still possessed encouraged him to issue a proclamation declaring that the battle fulfilled the prophecy which had foretold that all wavers in Mahdism would be weeded out in a battle with the infidels, and that the survivors, being the true believers, would rally at Abba, the island birthplace of Mahdism, and would drive the infidel before them. Emir Ahmed Fedil, a cousin of Abdullah, was the last of the Khalifa's lieutenants to have an organized force at his command. He had his home at Gedaref, between the Atbara and the Blue Nile. Moving down to the Nile with a large force of dervishes, he attempted to cross at the cataract near Roseires, 426 miles south of Khartoum, but was opposed on Dec. 26, 1898, by Col. Lewis with a Soudanese regiment

and a force of irregulars. Three quarters of the dervishes were well posted on an island in the river when Col. Lewis advanced to the attack by a ford. The Egyptian force captured the dervish position, and then dispersed a detachment of 300 dervishes that Ahmed Fedil had taken across to the opposite bank to fire upon the assailants as they approached the island. Ahmed Fedil escaped southward, still with a large body of followers, although the dervishes lost nearly 2,000 in killed and captured, while 6 Egyptian officers were wounded and 27 men killed and 124 wounded. Fedil withdrew to the province of Kordofan, where he joined the Khalifa in the vicinity of Lake Shirkeleh. The Khalifa had about 3,000 men, including a detachment under a Baggara Emir that was sent from Omdurman before the arrival of the sirdar's forces to form the nucleus of a new army in case of defeat at that place. He was joined also by the dervish force under Emir Arabi Wad Dafalla, which had evacuated Bor. Immediately after the battle of Roseires Lord Kitchener went in search of the Khalifa, reconnoitering as far as Duem, where he found the dervishes well intrenched near Lake Shirkeleh, and in such numbers that the Egyptian troops retired without engaging the enemy. A force of dervishes advanced toward the Nile, and their outposts fired upon a passing gunboat. Later the Egyptians moved in force upon the dervish encampment near Lake Shirkeleh, causing the Khalifa to evacuate the position and retire farther away from the river. Duem was then occupied as the advanced post of the Anglo-Egyptian forces. The Khalifa's camp was 140 miles west of the White Nile and 170 miles from Duem, which was garrisoned by an Egyptian battalion and some artillery and a camel corps. Parties of dervishes continued to raid the villages on the river, and ventured within a day's march of the post at Duem. When the Egyptians developed greater strength in the south they renewed their efforts to capture the Khalifa, until in the middle of May he moved farther south toward the Dar Sagalla mountains. After that the expeditions against him were abandoned for a time by order of the sirdar. The troops available at Omdurman and at Duem when active operations were resumed in the autumn consisted of 8 squadrons of cavalry, 5 batteries of artillery, 8 battalions of infantry, and 5 companies of the camel corps, over 10,000 men altogether. There were besides the garrisons left on the Blue Nile, in the eastern Soudan, and in the Fashoda district. The railroad bridge over the Atbara, the construction of which was given to an American firm because none in England would contract to complete it within the required time, was finished in August, and the railroad was declared open to ordinary traffic. There were 587 miles of railroad north of the bridge, and 122 miles were in working order south of it, leaving 75 miles to be completed to Khartoum. Lord Kitchener took a camel ride through the eastern Soudan in April, and discovered there much ruin and famine, the Hadendos suffering most, the whole of them having been collected by the Baggaras into Osman Digna's camp, where large numbers of them perished. The Shukurieh tribe was reduced from 80,000 camels to 1,000. The sirdar met the sheikhs of the different districts, who were then repairing as far as possible the damage wrought by the dervishes and collecting the scattered people.

In October Lord Kitchener ascended the Nile to a point 400 miles above Omdurman, and then marched inland about 50 miles until he was with-

in 30 miles of the place where the Khalifa was encamped. The Khalifa retired, being unwilling to accept battle. He was reported to have a force of 5,000 fighting men. Still, the sirdar did not consider him formidable or likely to give trouble, although his forces might at any time increase from local causes, and the fanatical and desperate tribesmen who remained true to him were themselves a constant menace to the peace of the Soudan. When Lord Kitchener withdrew a part of the garrison at Omdurman, leaving only a small force under Sir Francis Wingate, the Khalifa decided to make a forward movement. The Khalifa Abdullah el Taishi, who had remained for some time at Gedir, went northward in November, and was heard of in the neighborhood of Gedid. The sirdar collected a force as rapidly as possible, with the object of cutting him off and, if possible, destroying his army. On Nov. 21 Col. Sir Francis Wingate set out from Fachi Shoya in search of the Khalifa with a force of Egyptian infantry, black irregulars who had served under the Mahdi, Arab horsemen, a camel corps, a field battery, and six Maxim guns. The total strength of the column was 3,700 men. The Khalifa's advance guard of 2,400 men was encountered at Abo Adil, near the White Nile, on Nov. 22, having retreated from Mefissa at the approach of the Egyptian troops. The dervishes bravely charged up the hill where the mounted troops and artillery commanded their camp, and were only stopped within 60 yards of the guns by the infantry, who came up just in time. The Egyptians then made a general advance, driving the defeated enemy through their camp and several miles beyond. The Egyptian loss was only 1 killed and 6 wounded, while of the dervishes 400 were killed and 300 taken prisoners, most of them wounded. The rest rejoined the main body of the Khalifa's troops. The Khalifa's army was advancing northward when the Egyptian column was sent out by the sirdar, and its intended route was that by which Ahmed Fedil retreated. Col. Wingate judged that the Khalifa would either advance to give him battle or endeavor to escape by way of Gedid to Sherkeleh; not retreat over the route by which he had marched, as he had exhausted all the food and water when coming. The Egyptian column therefore proceeded as rapidly as possible to Gedid to stop the Khalifa from going west out of reach or to be in advantageous position to strike him if he tried to advance north, according to his original plan. From Gedid the Arab scouts that had enabled the Egyptians to surprise the dervish advance guard were sent out to find where the Khalifa was encamped. He was located with all his force at Om Debrekat, only six miles away. Advancing by a night march, the Egyptians before dawn on Nov. 24 occupied a ridge overlooking the dervish camp just before the Khalifa's men moved up, intending to take up a position on the same commanding ground. As the guns opened on the advancing dervishes the Khalifa moved his forces to the right, with the intention of turning the Egyptian left flank. The Egyptians concentrated their fire on that point and prolonged their line with the reserve battalions, in order to protect their flank. As soon as the dervish assault was checked Col. Wingate swung his right wing around, and a general advance all along the line swept the enemy through their camp. The Khalifa, although he saw that the battle was lost, did not stir from the spot in the center of the main attack, but courted death with his brothers Senussi Ahmed and Haroun Mohammed, Sadik, his son, Ali Wad Hila, Ahmed Fedil, his

chief fighting leader, and all his faithful emirs around him. They were all found dead in a group, their horses killed behind them, and the *mulamrin*, or black bodyguard of the Khalifa, lying prone, their faces to the foe, in a straight line about 40 yards in front of their master's body. In the camp were found about 6,000 women and children. The dervishes accepted *aman*, or quarter, and the fugitives, who were pursued by the cavalry, surrendered as soon as they knew that the Khalifa was dead. Besides the women and children, about 4,000 fighting men were taken, with large numbers of cattle and arms and property of various kinds. Of the Egyptian force, 27 were killed or wounded; of the dervishes, 700. Although Osman Digna was not among the slain or the captives, the power and influence of Mahdism was extinguished forever. Lord Kitchener sent officials to administer the reconquered territory, and reconstruction proceeded at such a pace that he announced the purpose of throwing the whole Egyptian Soudan open to commerce from Jan. 1, 1900.

The Anglo-French Agreement.—An agreement between England and France, delimiting the spheres of influence of both countries in Africa so far as they were not already defined in the Niger convention, was signed on March 21, 1899. Great Britain retains Bahr-el-Ghazal and Darfur, while Wadai, Bagirmi, Kanem, and the territory to the north and east of Lake Chad are relinquished to France, whose sphere extends south of the Tropic of Cancer as far as the western limit of the Libyan desert. The country between the Nile and Lake Chad and between 5° and 15° of north latitude the two countries agree to treat equally in commercial matters. The withdrawal of the French from Fashoda made it more apparent than ever that colonial policy in Africa must be governed by questions of the commercial interests of European nations. France, in order to protect and further her commerce in Africa, negotiated for the possession or reversion of Tibesti and of Wadai and Kanem, which are crossed by the caravan routes going to and from the Nile, and also by those going to and from Tunis and Tripoli. The possession of the whole eastern shore of Lake Chad insures territorial continuity and establishes closer communication between the various African possessions of France—namely, the French Congo, Senegal and the French Soudan, and the Sahara territory extending southward from Algeria and Tunis. France will also have commercial access to the Nile from the Lake Chad country through the central Soudan and from the French Congo territories on the Ubangi and Welle. The meager knowledge of the geography of the central Soudan makes it difficult to calculate the gains or losses of the two countries resulting from the agreement. Three separate methods were used in determining the boundary. The line of separation commences at the junction of the Congo Free State and the watershed of the Congo and Nile rivers, and follows the water parting up to 11° of north latitude, then runs north to 15° in such manner as to leave all of Wadai on one side of the boundary and Darfur on the other. The frontier line between those two countries will be traced by a mixed commission. North of 15° of latitude the line of separation starts at the intersection of the Tropic of Cancer with the meridian 16° east of Greenwich, near the southern frontier of Tripoli, and runs southeast till it meets the twenty-fourth meridian of east longitude, which it follows to the northern frontier of Darfur. The present agreement is the com-

plement of the Niger convention of June 14, 1898. The whole course of the Nile river is left under British control, but France does not abandon her diplomatic position regarding the status of Egypt and all territories formerly governed by Egypt as reverting to the independent Government of the Khedive under the suzerainty of the Ottoman Sultan upon the termination of the temporary military occupation of Egypt by Great Britain. England expects the conquered provinces of the Egyptian Soudan to become self-supporting. The present condition of Darfur is not known. Neither is the political state of Wadai, the old Sultan having recently died, and Abu Said been proclaimed Sultan in the beginning of 1899. Bagirmi is a flat country, rising slightly toward the north. Including Bagirmi, Wadai has a population of about 2,600,000 persons, partly Arab and partly negro, and an area of 172,000 square miles. The Mabas, who have embraced the Mohammedan religion and live in the northeastern part of Wadai proper, are the ruling race. The eastern frontier of the French sphere is the mountain range of Tibesti, which is almost unknown. In Rome and in Constantinople this latest Anglo-French agreement was regarded as an encroachment on what has always been regarded as the Hinterland of Tripoli. After the French occupation of Tunis Turkey would not negotiate for a delimitation of the boundaries of Tripoli, fearing such negotiations would acknowledge sovereign rights of France in Tunisia. France was thus able to extend her influence to the south without hindrance. Italy, which looks forward to the future possession of Tripoli when Turkish might shall no longer be able to hold the empire together, has considered the possession of Tibesti and Ghadames indispensable to Tripoli, whose chief value lies in the caravan routes which run through this large territory to distant parts of Africa. In the event of the disintegration of the Ottoman Empire Italy's contingent claim to the reversion of the country lying between Tunis and Egypt is held with a fixity of purpose that admits no rival pretensions, and her moral claim has not yet been disputed. The policy of England, her ally in the Mediterranean, which gave Tunis to France, deeply wounded Italian susceptibilities, and now the abandonment to France of the main caravan routes of Tripoli in the new Anglo-French agreement has given a shock to Italian feeling that threatens the stability of the Anglo-Italian naval alliance. Italy has at various times prompted the Ottoman Porte to make objections to encroachments made by France in the Hinterland of Tripoli; but the Turks, viewing Italy's interest in Tripoli with suspicion, took measures for the military defense of the vilayet itself rather than of the caravan routes and the oases of the desert. The Turkish protests were ignored by both France and Egypt, because the pretensions of the Porte were so enlarged beyond the Italian suggestions as to embrace extensive territories already in the possession of other powers. In reply to Italy's request for explanations regarding the Anglo-French agreement, both France and England gave assurances that Italy need fear no movement against Tripoli in the future, and that no efforts would be made by either of them to interfere with the trade routes between Tripoli and the interior. The British Government by the new convention engaged not to acquire either territory or political influence to the west of the line separating the two spheres, and the French Republic engaged not to acquire territory or influence to the east of the same line.

EVANGELICAL ASSOCIATION. The summary of the statistics of this body for 1899 gives the following total numbers: Of itinerant preachers, 1,031; of local preachers, 511; of members, 117,613; of members newly received during the year, 7,967; of adults baptized, 1,169; of infants baptized, 6,394; of new conversions, 8,782; of Sunday schools, 2,178, with 23,641 officers and teachers and 148,867 pupils; of catechumen classes, 911, with 10,735 catechumens; of Young People's Alliances, 987, with 34,960 members; of churches, 1,819; of parsonages, 696.

The total receipts of the Missionary Society for the year 1898-'99 had been \$199,673, the average of contributions being \$1.73 per member. The amount showed a gain over the previous year of \$9,124. The expenditures had amounted to \$146,000. The missionary debt had been paid, and for the first time in thirty-two years the treasury was free from obligations. The 548 home missions returned 543 missionaries, 46,577 members, 4,153 conversions, and 4,497 members newly received during the year. Fourteen missions had been changed to stations, and 22 new missions had been established. The foreign missions returned 106 stations, 130 missionaries, 14,250 members, 1,532 conversions, and 1,348 members newly received during the year, and 3 new stations had been formed. The whole shows an increase of 9 missions, 14 missionaries, and 670 members, and a decrease of 1,163 conversions and 699 members newly received. The Woman's Missionary Society had 6 conference organizations and 115 auxiliaries, with 2,587 members, and had contributed \$4,374, or \$1.76 per member. At the request of this society the Board of Missions had appointed 2 women missionaries to Japan, to be supported by the women's organization.

The Evangelical Correspondence College includes three schools, of which the Evangelical School of Theology embraces 10 departments in theology, Christian philosophy, and sacred languages, and had in 1898-'99 174 students; the Evangelical Reading Circle had 450 students enrolled; and the Evangelical Bible School had nearly 2,000 students.

The assets of the Charitable Society were reported to the General Conference as amounting to \$31,641, showing an increase of \$1,100 in the past four years.

A report was made to the General Conference concerning the Orphan House.

The twenty-second General Conference met at St. Paul, Minn., Oct. 5. A general episcopal address was presented, reviewing the condition of the Church, in which a check to its growth or reduction of the rate of increase was recognized as a result of the disturbances which it had suffered resulting in the formation of the United Evangelical Church as a separate body. This, however, did not appear so plainly in the foreign conferences in Germany and Switzerland and Japan, which had not suffered so seriously from the disturbances, and where the growth had been unhindered. Among the more important matters of business transacted by the Conference was the formation of a board of church extension, the object of which was defined to be "the assistance of needy congregations in the erection of houses of worship." A petition, numerously signed, asking for lay representation in the annual and general conferences, was referred to a committee of 5 preachers and 4 laymen, a bishop presiding, to prepare a practicable plan and report the same to the next General Conference. A centennial celebration or commemoration of the one hundredth anniversary of the existence of the

Church was determined upon to be held in the year 1900, on or about the time of the year when Jacob Albright effected the first organization. It was decided that the general celebration be held at Linwood Park, and a local committee was appointed to carry the scheme into effect; that each annual conference arrange for one or more general celebrations, and provide for the holding of celebrations by each individual society within its bounds; and that offerings be solicited for the higher institutions of learning, with provision for the application of special offerings to the particular benevolent societies of the Church to which donors may desire them appropriated. The bishops were empowered to appoint delegates to the Ecumenical Council of Methodism, to be held in London in 1901. J. J. Esher, Thomas Bowman, W. Horn, and S. C. Breyfogel, the present incumbents of the office, were re-elected bishops for the term of four years. Provision was made for the preparation of a commentary on the catechism for the use of ministers and teachers in the Sunday schools. The Conference determined to open a fund for beginning a mission in China. A minute was passed recognizing "the deaconess movement as the highest practical expression of the Samaritan law of Christian philanthropy," and welcoming its introduction into the Evangelical Association, and a committee was constituted to oversee the organization of its work in any part of the Church. The Christian Endeavor Society, the Epworth League, and the Baptist Young People's Union having adopted uniform prayer-meeting topics, favorable consideration was invoked for the adoption of the same by the Young People's Alliance of this Church. A report was adopted for insertion in the discipline concerning the relation of young people to the Church, recognizing those who have been baptized as belonging to it and as objects of its solicitude and pastoral care. The report of the Committee on Public Morals dealt with the subjects of family devotion, the Christian Sabbath, and temperance, and included resolutions against the seating in the national House of Representatives of Brigham H. Roberts as a member from Utah.

EVENTS IN 1899. The attention of the world has been largely fixed throughout the year upon wars, actual and possible, and upon means for preventing their recurrence. In our own country scandals connected with the Spanish war and the deplorable outbreak of hostilities in the Philippine Islands commanded a large share of public attention. In France the renewed army scandal of the Dreyfus case drew the attention of the world, while the International Peace Congress at The Hague resulted more favorably than had been expected in the direction of arbitration. In October the South African war startled the whole world by its developments, and the year ended with universal peace apparently as far off as ever.

January 1. Cuba: Spanish sovereignty terminates and the flag of the United States is raised at all military posts. Gen. John R. Brooke, U. S. A., military governor. Samoa: Hostilities begin between the rival native kings. Boston: Formal opening of the Terminal Railroad Station.

2. New York: Inauguration of Gov. Theodore Roosevelt. State Legislatures meet in California, Montana, and Tennessee. Sicily: Outbreak of tax riots.

3. State Legislatures meet in Delaware, Minnesota, Nebraska, North Dakota, and Pennsylvania. Denver: Organization of the United States 16-to-1 Money League.

4. State Legislatures meet in Colorado, Connecticut, Illinois, Maine, Massachusetts, Michigan, Missouri, New Hampshire, New York, North Carolina, and Rhode Island. Washington: Both branches of Congress reassemble after the holiday recess. Consideration of the treaty of peace with Spain begins at once in the Senate.

5. Egypt: The corner stone of the Gordon Memorial College laid at Khartoum by Lord Cromer. State Legislatures meet in Idaho and Indiana.

6. India: Lord Curzon installed as Viceroy.

7. Philippine Islands: Aguinaldo summons his countrymen to resist American occupation.

9. State Legislatures meet in Arkansas, Oregon, South Dakota, Utah, and Washington.

10. Washington: Charlemagne Tower nominated ambassador to Russia and Addison C. Harris minister to Austria-Hungary; both were duly confirmed by the Senate.

11. Washington: Joseph H. Choate nominated ambassador to the court of St. James. West Virginia: Meeting of the State Legislature. Vermont: The Governor appoints Chief-Judge Jonathan Ross for the unexpired senatorial term of Mr. Morrill, deceased. Connecticut: Renomination of Senator Hawley.

12. Washington: Commissary-General Eagan charges Gen. Miles with falsehood before the War Investigating Committee.

14. England: Launch of the White Star steamer *Oceanic* at Belfast, the largest ship now afloat. Washington: Senator Hoar offers a resolution favoring the independence of the Philippine Islands.

15. New York: Organization of the General Federated Union, a powerful labor organization, comprising two societies that are now dissolved.

16. Brooklyn, N. Y.: The Rev. Newell Dwight Hillis, of Chicago, invited to assume the pastorate of Plymouth Church.

17. A court-martial ordered for the trial of Commissary-General Eagan for insubordination and conduct unbecoming an officer and a gentleman. Washington: The President appoints a commission to visit the Philippine Islands and report upon the situation there. Election to the United States Senate of Chauncey M. Depew (Republican), New York; Albert J. Beveridge (Republican), Indiana; Joseph Hawley (Republican), Connecticut; Eugene Hale (Republican), Maine; Henry Cabot Lodge (Republican), Massachusetts; C. K. Davis (Republican), Minnesota; and F. M. Cockrell (Democrat), Missouri.

18. Pennsylvania: Beginning of a protracted contest over the re-election of United States Senator Quay, John Wanamaker being the leader of the opposition.

19. New York: United States transport *Grant* sails for Manila with the Fourth Infantry and part of the Seventeenth Infantry.

20. France: Proceedings in the Chamber of Deputies looking to the reopening of the Dreyfus case. Hungary: An attempt made in the Chamber of Magnates to demand the intervention of the Crown in a political crisis.

21. Egypt: Lord Kitchener, of Khartoum, appointed Governor of the Soudan.

22. Belgium: A Cabinet crisis occurs between the King and some of his ministers on questions connected with the electoral system.

24. Texas: Charles A. Culberson (Democrat) elected United States Senator. New Jersey: John Kean elected United States Senator. The Legislatures of Wyoming and Nevada re-elect their respective Senators, Messrs. Clark and Stewart.

25. West Virginia: Nathan B. Scott (Repub-

lican) elected United States Senator. Washington: Beginning of the court-martial of Gen. Eagan.

26. San Francisco: The Twentieth Infantry sails for Manila.

28. Montana: William A. Clark (Democrat) elected United States Senator.

30. Spain: Arrival at Barcelona of a military transport with 1,250 Spanish soldiers, 350 of whom are seriously ill, while 56 died on the voyage.

31. Wisconsin: Joseph V. Quarles (Republican) elected United States Senator.

February 1. The American flag raised at the island of Guam, in the Ladrone archipelago, Commander Tausig of the gunboat Bennington assuming the temporary governorship.

2. Cuba: Gen. Gomez agrees to co-operate with the United States authorities to secure the disbanding of the Cuban army.

4. Philippine Islands: First encounter between Filipinos and Americans.

5. Manila: Filipinos attack the American outposts and are repulsed with heavy loss.

7. Army: The Eagan court-martial, having convicted him on Jan. 27, and recommended his dismissal from the service, the sentence is mitigated by the President to suspension from duty for six years. (Subsequently he was "retired" at his own request.)

10. Washington: The President signs the treaty of peace with Spain.

11. Washington: The President nominates Horace A. Taylor, of Wisconsin, to be Assistant Secretary of the Treasury.

15. Washington: The President nominates George W. Wilson, of Ohio, to be Commissioner of Internal Revenue.

16. France: Sudden death of President Faure.

18. France: Émile Loubet elected President of the republic.

20. Russia: By order of the Czar the inhabitants of Finland are deprived of certain time-honored privileges as regards home government. Spain: The Cortes meets in Madrid to consider the peace treaty and other questions of national importance. Washington: A bill is passed appropriating \$20,000,000 to pay Spain under the terms of the treaty of peace. The vote stood 219 to 34.

21. Manila: Attempt of the insurgents to burn the city.

22. Spain: In the Cortes the ministry is bitterly attacked on account of its policy regarding the Philippines.

28. Spain: A measure rejecting the cession of the Philippines is defeated by a close vote.

March 1. Spain: Resignation of the Sagasta ministry on the question of ceding the Philippines.

2. Army: Six regiments of regular troops ordered to re-enforce Gen. Otis at Manila.

3. Navy: Rear-Admiral George Dewey promoted Admiral. Spain: Señor Silvela undertakes to form a new ministry.

4. Manila: Arrival of the members of the American Commission. The United States troops land on the island of Negros.

11. Cuba: The Assembly impeaches Gen. Gomez and degrades him from the army.

13. Washington: The President appoints Mr. Herbert Putnam, of the Boston Public Library, to be Librarian of Congress. Delaware: Adjournment of the Legislature without electing a United States Senator.

15. Spain: The Cabinet decides to ratify the treaty of peace with the United States.

16. Chicago: Renomination of Mayor Harrison by the Democrats.

17. Spain: The Queen Regent signs treaty of peace with the United States.

18. Cuba: Rioting occurs at Havana between the police and the populace. Manila: Arrival of the United States battle ship Oregon after a voyage of sixty-three days from the United States. California: Adjournment of the Legislature without electing a United States Senator.

21. Egypt: An Anglo-French treaty signed, amicably adjusting the Nile boundary.

22. Cuba: An increase of the Havana police force by 400 men ordered by Gen. Ludlow.

28. Cuba: Establishment of an independent postal service under authority of the department at Washington.

31. Philippine Islands: Fighting has been almost continuous since the outbreak of hostilities, and, although the American troops are uniformly successful, the Filipinos are able through their great numbers to maintain an extremely annoying system of guerrilla warfare, which entails constant, though not large, losses of killed and wounded on the part of the Americans.

April 1. Samoan Islands: Engagement between the allied forces of the English and Americans and the natives of Mataafa's army; 3 officers and 4 sailors killed. Detroit, Mich.: A committee appointed by the Common Council to purchase and operate all street railroads.

3. Greece: Resignation of the ministry. Ohio: Important elections held in Cleveland, Toledo, and Columbus.

4. Chicago: Carter H. Harrison, Democrat, re-elected mayor by a plurality of 40,000 over Z. R. Carter, Republican. Denver, Col.: H. V. Johnson elected mayor.

5. Rhode Island: Gov. Dyer, Republican, re-elected with a Republican Legislature.

19. England: The House of Commons rejects a bill to repeal the Irish coalition act.

20. Washington: Ratification of a new extradition treaty between the United States and the Orange Free State.

21. Pennsylvania: Ex-Senator Quay acquitted of a charge of conspiracy for the misappropriation of State funds.

25. England: Celebration of the three hundredth anniversary of Cromwell's birth.

26. New York: Passage of a bill for rapid transit.

28. New York: Adjournment of the State Legislature.

29. Puerto Rico: Brig.-Gen. George W. Davis appointed military governor. Idaho: Several hundred striking miners in the Cœur d'Alene district capture a railroad train, arm themselves, and destroy much mining property. The Governor asks for Federal troops. Philippine Islands: Gen. Otis, in reply to commissioners from Aguinaldo, demands an unconditional surrender on the part of the Filipino insurgents, and the commissioners withdraw after a fruitless errand.

May 1. The first anniversary of Admiral Dewey's victory at Manila. The day is generally celebrated throughout the possessions of the United States. Washington: Warrants for \$20,000,000 turned over to the Spanish agent, as provided by the terms of the treaty of peace.

2. Resignation of the Italian Cabinet. Cuba: The military governor issues decrees of reform in Spanish laws. Washington: Burial with military honors of 252 soldiers who died in Cuba and Puerto Rico.

3. Canada: Installment of the Most Rev. Dennis O'Connor, Roman Catholic Archbishop of To-

ronto. Kentucky: Dedication of the State monument to Union and Confederate soldiers on the battlefield of Chickamauga.

7. Charleston, S. C.: Indictment in the United States Circuit Court of 13 men charged with lynching Frazer B. Baker, the negro postmaster at Lake City.

8. New York: The Mazet Investigating Committee opens its inquiry into the Tammany administration.

10. Pana, Ill.: A street riot among miners causes death of 7 people, many wounded. Charleston, S. C.: Annual reunion of Confederate veterans.

11. Rome: The Pope proclaims a universal jubilee for the Holy Year of 1900.

14. New York: Ordination of the Rev. Dr. Charles A. Briggs, lately a Presbyterian, to be a priest in the Protestant Episcopal Church.

15. Cuba: Gen. Gomez gives up the task of paying off his compatriots with the \$3,000,000 given him by the United States for that purpose.

16. Boston: Resignation of the Rev. Edward Everett Hale, pastor for forty-three years of the South Congregational Church.

17. England: The Queen lays the corner stone of the Victoria and Albert Museum. Holland: The International Peace Congress meets at The Hague.

20. Manila: Admiral Dewey sails for home on the flagship Olympia.

25. Yale University: Prof. Arthur T. Hadley chosen president.

26. New York: The Governor signs the amended franchise tax bill as passed by the special session of the Legislature.

29. Washington: The President removes about 4,000 offices from the classified civil-service list.

30. President Krüger of the South African Republic and Sir Alfred Milner hold a conference respecting the alleged grievances of the Outlanders. New Rochelle, N. Y.: A bronze bust unveiled of Thomas Paine. Rhode Island: Inauguration of Gov. Dyer for the third term.

31. France: The Court of Cassation pronounces for a revision of the sentence of Capt. Dreyfus, and asks for a new court-martial.

June 1. France: Enthusiastic reception of Major Marchand, who defied the British on the upper Nile. Idaho: The Supreme Court rejects the application made in behalf of the rioting miners for a writ of *habeas corpus*.

4. France: President Loubet is attacked by a mob.

5. France: The Chamber of Deputies supports the course of the Government in punishing the rioters who attacked President Loubet. London: The House of Commons, by a vote of 393 to 51, grants \$150,000 to Gen. Lord Kitchener for the establishment of a college at Khartoum.

8. Philippine Islands: Gen. Luna, a Filipino leader, assassinated by order of Aguinaldo.

10. Rhode Island: The yacht Columbia launched at Bristol.

12. France: Resignation of the ministry, in consequence of a defeat in the Chamber of Deputies.

13. France: The Baron De Christiani sentenced to four years' imprisonment for assaulting the President.

14. Flag Day in the United States, a newly designated holiday, celebrated in many places. New York: Bronze statue unveiled of ex-President Arthur in Madison Square.

15. Paris: First formal meeting of the Venezuelan Arbitration Committee.

16. Spain: The first United States minister

under the peace treaty, the Hon. Bellamy Storer, formally received by the Queen Regent.

22. France: A new ministry formed by M. Waldeck-Rousseau.

26. London: Opening of the International Council of Women. Launch of the yacht *Shamrock* on the Thames.

29. Belgium: Riotous demonstrations against the electoral reform bill. New London, Conn.: Harvard wins in three boat races with Yale.

July 1. France: Capt. Dreyfus lands and is transferred to the military prison at Rennes to await retrial. Washington: Conclusion of a reciprocity treaty with Jamaica.

3. Spain: Adjournment of the Senate after ratifying the treaty of peace with the United States.

4. France: The Chamber of Deputies adjourns after sustaining the Government's decision not to debate the wages of workingmen and the hours of labor.

5. Detroit: The State Supreme Court declares unconstitutional the law providing for the purchase by the city of the street-railroad system.

6. Philippine Islands: Spanish commissioners secure the release of prisoners held by insurgents. Servia: An attempt made to assassinate ex-King Milan in Belgrade. England: The House of Commons adopts the Lords' amendment excluding women from membership in the county council. Gen. Joseph Wheeler ordered to report for duty in the Philippines. Detroit: Annual convention of the Society of Christian Endeavor.

10. Servia: Martial law declared throughout the department of Belgrade. The United States Government refuses to consider claims of Austro-Hungarian subjects in the recent miners' riots at Hazleton, Pa.

11. Russia: The Czar declares his brother, Grand Duke Michael Alexandrowitch, heir to the throne since the death of the Grand Duke George. Washington: An order is issued extending the protection of the American flag to vessels owned in Puerto Rico and the Philippines. California: Meeting of the National Educational Association at Los Angeles.

12. Cuba: Quarantine established at the city of Santiago to check the yellow fever; Gov.-Gen. Brooke reforms the Spanish *incommunicado* system of imprisonment.

13. England: The House of Commons passes the tithe-rent-rating bill.

17. Washington: The new German ambassador, Herr Von Schwartzstein, presents his credentials to the President. Manila: American newspaper correspondents unite in a protest against the military censorship of the press.

18. Washington (State): Arrival of \$6,000,000 in gold dust from Alaska. South African Republic: The Government provides for a seven-year franchise and to permit the naturalization of sons of Outlanders.

19. Washington: Resignation of Russell A. Alger as Secretary of War.

20. Chicago: Meeting of the Democratic National Committee.

21. Paris: Opening of the Venezuela arbitration case before the Joint Tribunal. Louisiana: Five Italians charged with murder are hanged by a mob. Washington: An official denial is published of the charges of American newspaper correspondents in Manila.

22. Washington: Elihu Root, of New York, appointed Secretary of War in place of Mr. Alger, resigned. England: In an international athletic contest Oxford and Cambridge show themselves superior to Yale and Harvard. Opening of Wag-

ner Festival at Bayreuth. Cleveland, Ohio: State troops called out to preserve order in connection with the street-railroad strike. Washington: Reciprocity treaties signed between the United States and several of the British West Indian colonies.

22-24. Manila: Arrival of the United States transports *Zealandia* and *Sheridan* with reinforcements for Gen. Otis.

24. Washington: Reciprocity treaty signed between United States and France. Crete: The English withdraw their protectorate, leaving the island under the governorship of Prince George of Greece.

25. England: Launch of the battle ship *Vengeance*. France: Launch of the battle ship *Suffren* at Brest; she is the largest vessel in the French navy. Philippine Islands: Gen. Otis proclaims a provisional government for the island of Negros.

26. Samoan Islands: An agreement reached abolishing the kingship and agreeing to government by an administrator with a council. Santo Domingo: Assassination of President Heurieux.

28. Washington: A postal convention is adopted with the Government of Peru.

30. England: Two balloonists cross the English Channel, landing at Dieppe, after reaching an altitude of 10,000 feet. Washington Territory: Return of the Alaskan Scientific Expedition to Seattle.

31. Ex-Secretary Alger issues a statement defending his course while at the head of the War Department. England: The Archbishops of Canterbury and York decide against the use of incense and processional lights in the Church of England. Sir Julian Pauncefote, ambassador to the United States, raised to the peerage.

August 1. Washington: Secretary Root assumes charge of the War Department. Cuba: Gen. Ludlow suppresses a Cuban newspaper for seditious language. Canada: Thomas Bain elected Speaker of the Dominion House of Commons.

2. Santo Domingo: Two of the assassins of President Heurieux executed.

5 Spain: The court-martial at Madrid acquits Gens. Toral and Pareja for the surrender of Santiago to the forces of the United States.

7. France: Beginning of the second trial by court-martial of Alfred Dreyfus.

8. South Africa: The Transvaal Parliament authorizes the Government in time of war to call upon every inhabitant for military service, and rejects English proposition for inquiry into alleged wrongs of foreigners.

9. England: Parliament adjourns.

10. Mexico: War breaks out with the formidable Yaqui Indians.

12. New York: Richard Croker, the Tammany leader, declares in favor of Bryan and against the Government's policy in the Philippines.

14. France: An attempt made to assassinate M. Labori, leading counsel for Dreyfus.

15. Paris: Anti-Jewish riots break out. Russia: The Czar declares the newly acquired Chinese port of Talien-Wan open for all nations. President McKinley addresses the Roman Catholic Summer School on one of the islands of Lake Champlain. Boston: Annual meeting of the League of American Wheelmen.

16. France: The Dreyfus court refuses postponement of the trial on account of the shooting of M. Labori.

17. Army: The enlistment ordered of 10 new regiments of United States volunteers and their colonels are appointed by the War Department.

19. Switzerland: Congress of Zionists at Basle. An American proposal rejected for the colonization of Jews in the island of Cyprus.

20. France: Continued riotous demonstrations of anarchists, Socialists, and the like in Paris.

21. Army: Secretary Root appoints Lieut.-Col. Joseph P. Sanger to superintend the taking of a census in Cuba.

22. Washington: Ex-Speaker Thomas B. Reed resigns his place in Congress. France: M. Labori is able to resume his duties with counsel in the Dreyfus trial.

23. Germany: The Emperor holds a council of Prussian ministers at Potsdam.

24. San Francisco: Enthusiastic reception of California volunteers returning from the Philippines.

25. Russia: The Czar issues an order for the systematic education of the children of the nobility.

26. Egypt: Lord Kitchener opens the Atbara bridge (of American construction) on the Soudan Railway. United States and Germany: A parcels' post convention signed.

29. Navy: The new battle ship Alabama develops a speed of $17\frac{1}{2}$ knots on her trial trip.

31. Brussels: The Chamber of Deputies rejects a motion to revise the Constitution.

September 4. France: The Senate summoned by President Loubet to sit as a high court for the trial of persons charged with treason. Philadelphia: Thirty-third annual encampment of the Grand Army of the Republic.

7. Detroit: National encampment of the Sons of Veterans.

9. France: The court-martial in Capt. Dreyfus's case finds him guilty and sentences him to ten years' imprisonment. Rioting in consequence at Rennes and in Paris.

10. France: The members of the Dreyfus court-martial recommend that he be not again punished.

12. Spain: Martial law declared in the province of Vizcaya.

13. Michigan: Gov. Pingree announces his retirement from politics.

14. Philadelphia: Opening of the National Export Exposition.

17. Illinois: Eight negroes killed in a mining riot at Cartersville. South Africa: The Transvaal refuses to comply with English demands regarding the franchise.

18. China protests against the order of Gen. Otis excluding Chinese from the Philippines.

20. St. Louis, Mo.: An antitrust conference of State governors and attorneys-general begins its sessions. Africa: A Russian exploring expedition discovers a hitherto unknown range of mountains in Abyssinia. West Virginia: Two thousand miners in the New River region strike for higher wages. Algiers: Nine persons wounded during an anti-Jewish riot.

24. London: A mass meeting in Trafalgar Square, nominally in sympathy with the Transvaal Republic, turns into a war demonstration.

25. Arrival of Admiral Dewey on the Olympia in New York Bay.

27. Chicago: Organization of the Young People's Christian Temperance Union.

28. Venezuela: Caracas, the capital city, invested by revolutionists.

29-30. New York: Naval and land parades in honor of Admiral Dewey's return.

30. Army: Capt. Oberlin Carter sentenced by court-martial to five years' imprisonment and fined \$5,000 for misappropriation of funds. Austria: Appointment of Count Clary as Prime Minister.

October 1. Philippine Islands: Insurgent commissioners hold an interview with Gen. Otis at Manila.

2. Texas: An enthusiastic welcome extended to W. J. Bryan and other Democratic party leaders. West Africa: Members of a German exploring expedition massacred by natives near the Calabar river.

3. South Africa: A treasure train wrecked with apparent intent on its way to Cape Town. Paris: The Venezuelan Court of Arbitration announces its decision, which is in effect a compromise. Yachting: First day of international sailing races off New York.

4. Philadelphia: Admiral Schley elected commander of the Loyal Legion. Washington: The President and members of the Cabinet start on a journey through the middle West.

10. South Africa: The Transvaal Republic presents an ultimatum to Great Britain.

11. South Africa: An armed force invades Natal, a British possession, thus beginning the South African war. A British armored train wrecked by the Dutch near Mafeking; 15 soldiers killed. Norway: King Oscar under protest signs a bill recognizing a separate Norwegian flag. Tennessee: An attempt to rob a bank at Servierville results in the killing of one robber, while others are wounded and one commits suicide rather than be taken alive.

15. West Africa: A German expedition against the Cameroons kills 200 of them in revenge for their attack upon a German expedition.

16. Virginia: Opening of the Dismal Swamp Canal, an important link in inland navigation from Chesapeake Bay southward. Cuba: The work of taking a census of the island begins under American officials.

17. England: Parliament meets to take action in regard to the South African war.

20. England: The House of Commons votes large credits for war purposes. Washington (State): Convention of the Women's Christian Temperance Union. Yachting: Final race for the America's Cup off New York.

24. South Africa: The Orange Free State proclaims annexation of a part of the British territory. Venezuela: The revolution declared successful. Colombia, South America: A revolution in full progress; a naval fight takes place in the Magdalena river.

25. Russia: A large number of high Government officials arrested for malfeasance in office. Illinois: Strikers at Decatur engage in rioting against officers and nonunion men.

The month ends with the South African war fairly begun between the Transvaal Republic and the Orange Free State as allies against the British Empire as represented by a somewhat inadequate army hurried forward to meet the emergency. Several sharp encounters have taken place, the British generally getting the worst of it; the important British posts at Ladysmith, Mafeking, and Kimberley are already closely invested by superior forces.

November 1. Navy: A three-days' test of Marconi's wireless telegraphy by war vessels at sea gives favorable results.

2. Kansas: A sword of honor is presented to Gen. Frederick Funston by the State in recognition of his distinguished military services.

6. Washington: The President appoints the governors of all the States to serve as a committee on the centennial celebration of the establishment of the national capital at Washington.

8. Germany and Great Britain agree upon terms respecting the partition of the Samoan Islands.

Richmond, Va.: A memorial unveiled in honor of Miss Winnie Davis, daughter of Jefferson Davis, President of the late Confederate States.

11. Pennsylvania: An encounter between police officers and robbers at Titusville results in the killing of two men and the wounding of several others. New Mexico: An attempt to arrest an Indian malefactor results in a fight, in which six Indians and one white man are killed. Cuba: Gov.-Gen. Brooke issues the first Cuban thanksgiving proclamation.

15. Washington: Secretary Gage announces the intended purchase of \$25,000,000 in 5-per-cent. Government bonds.

16. It is announced that two of the great women's temperance unions have decided to unite under one organization.

17. Egypt: A monument to De Lesseps, the engineer of the Suez Canal, dedicated at Port Said. Colombia, South America: Sharp fighting between Government troops and rebels, the Government having apparently the best of the campaign. Columbus, Ohio: At the congress of the National Municipal League a programme for general legislation was adopted.

19. Brooklyn, N. Y.: Resignation of the Rev. Richard S. Storrs, pastor for fifty-three years of the Church of the Pilgrims.

22. Egypt: Decisive battle between the Anglo-Egyptian troops and the dervishes on the upper Nile, apparently destroying the dervish power; their leader, the Khalifa, is slain.

23. The general assembly of the Knights of Labor passes resolutions denouncing President McKinley.

25. Great Britain officially notifies the nations that a state of war exists in South Africa.

27. Washington: Agreement of the United States with the partition of the Samoan Islands as arranged between Great Britain and Germany. Pennsylvania: An anonymous benefactor gives the university of the State \$250,000 to erect a laboratory of physics.

30. Columbia, S. C.: Dedication of a State home for negro boys and girls.

The war in South Africa is still in its preliminary stage. Great Britain is making every exertion to press forward re-enforcements and supplies, but her resources are not equal to the emergency, and the Dutch allies have not only carried the war into British territory, but hold all that they have taken, and threaten to advance still farther toward the principal towns in the British possessions. The situation at the end of the month is so critical that the financial markets of the world are notably affected thereby.

December 4. Washington: Congress organizes, with David B. Henderson as Speaker of the House. The Supreme Court in the Addystone Pipe case renders an antitrust decision.

5. The President's annual message is read to both houses of Congress. Chicago: Consolidation of the Pullman and Wagner Palace Car Companies. United States and Guatemala: A parcels post treaty signed.

6. Army: Brig.-Gen. Leonard A. Wood, who has rendered distinguished services of a civil character as governor of Santiago province in Cuba, is promoted major general, and a few days later is made Governor General of Cuba.

7. Philadelphia: It is announced that Peter A. B. Widener has purchased a site on which will be erected a school and hospital for crippled children.

9. Lease announced of the Tehuantepec Railroad to a firm of British contractors.

11. Michigan: Opening of the fifteenth annual

convention of the American Federation of Labor at Detroit. New Jersey: Arrest at Newark of representatives of numerous bogus corporations operating under the State laws, and charged with fraudulent use of the mails.

14. The one hundredth anniversary of the death of George Washington is appropriately celebrated in various parts of the United States. The President delivers an address at Mount Vernon.

17. England: The appointment is announced of Gen. Lord Roberts to the chief command of British forces in South Africa, with Gen. Lord Kitchener as his chief of staff.

18. New York: A notable decline takes place in the money market, and several important failures are announced. The banks come to the relief of the financial situation. England: Volunteers for the Transvaal war come forward in great numbers.

19. Philippine Islands: Major-Gen. Henry W. Lawton, U. S. A., killed in action near San Mateo.

24. Rome: The Pope performs the ceremony of opening the Holy Door at St. Peter's.

28. Washington: The bodies of the men who perished in the Maine disaster, having been brought from Cuba, are buried in the Arlington Cemetery with full military honors.

30. Seizures of German and American ships and goods by the British as contraband of war cause protests on the part of owners.

31. Philippine Islands: A native plot to throw bombs and inaugurate an uprising among the natives in Manila on the occasion of Gen. Lawton's funeral is discovered and frustrated by the military authorities.

The year ends with the Filipino forces so effectually dispersed that the whereabouts of their leader, Aguinaldo, is unknown, while his most trusted officers, and even his own family, are held as prisoners. Nevertheless, a formidable guerrilla warfare continues, necessitating the constant employment of troops for arduous service. In South Africa, at the end of December, the Dutch allies held all that they had gained in the British colonial possessions, and still successfully defied all attempts of the British to relieve the three beleaguered garrisons at Ladysmith, Kimberley, and Mafeking. The British losses to date from the beginning of the war, in October, were 1,027 killed, 3,675 wounded, and 2,511 missing or taken prisoners; total, 7,213. The losses of the Dutch allies are not known.

EXPOSITION, NATIONAL EXPORT.

This exposition, the first of its kind ever held in this country, was opened in Philadelphia Sept. 14, and continued until Dec. 2, 1899.

Origin.—Several years ago representative men of the business interests of Philadelphia organized a Commercial Museum, which has been in active operation since 1897. Its objects are to foster and promote, by practical and systematic efforts, and by new, original, and effective methods, the foreign trade of America. Through the heads of its various departments it is in constant communication with more than 20,000 correspondents abroad, through whom it keeps in touch with every phase of international commerce. The museum contains collections consisting of, first, manufactured articles arranged in lines of manufacture; and, second, raw products, which are displayed so as to show the geographical distribution and the development of the subject. It is possible from these collections to show the consuming capacity of any country by the exhibition of the goods that are most saleable there, and also to show its producing capacity. A pan-American commercial congress

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was held under the auspices of this museum in 1897, which resulted in the placing of orders for American manufactures amounting to several million dollars, and since that time the holding of an exposition has been the ambition of the museum authorities. The preliminary steps that were taken for that purpose in October, 1897, were abandoned temporarily, owing to the war with Spain in 1898, and it was therefore not until December, 1898, that a bill giving the exposition the sanction and support of the National Government was passed by the House of Representatives, although before that time a bill had been put through the Senate. The National Government gave \$300,000 to the exposition, contingent upon an equal amount being raised from other sources. Accordingly, \$200,000 was appropriated by the Philadelphia City Council, \$50,000 by the State Legislature, and \$50,000 was raised through private subscription. Later an additional \$50,000 was appropriated by Congress for the purchase of samples of foreign goods to enable domestic manufacturers to acquire a knowledge of the style of goods wanted by foreigners, so as to compete successfully in their production.

Officers.—The officers of the Philadelphia Exposition Association conducting the National Export Exposition were: P. A. B. Widener, president; W. W. Foulkrod, John Birkinbine, and Sydney L. Wright, vice-presidents; B. W. Hanna, secretary; Sydney L. Wright, treasurer. The following were the officers of administration: William P. Wilson, director general; Edmund A. Felder, assistant director general; J. F. Weisinger, chief clerk; W. A. Raborg, chief clerk, department of exhibits; W. A. Sullivan, superintendent of terminal service; Frank W. Harold, chief of the department of publicity and promotion; William Buergermeister, German editor; William E. Cash, chief of the departments of admissions and concessions; William Harper, chief of the department of foreign samples; C. A. Green, superintendent of the department of foreign samples; John Birkinbine, engineer in chief; A. M. Greene, Jr., mechanical engineer; C. C. Billberg, electrical engineer; J. H. Stewart, assistant engineer; Edwin Elliot, assistant to engineer in chief; and Charles P. Hunt, captain of the guard.

Grounds and Buildings.—The grounds were on the west bank of Schuylkill river, and included a tract of 56 acres deeded to the Philadelphia museums by the city of Philadelphia, together with a tract of 6 acres secured for temporary use. The main entrance was at the north end of the grounds, on South Street. The exposition was easily accessible from all parts of the city by street-car and steam railways going directly to the entrance.

The main building was 1,000 feet long and 400 feet wide. It included three pavilions, two stories high, and an auditorium with a seating capacity of 5,000. The building covered 9 acres, and the area of floor space aggregated 12½ acres. The main entrance was in the north pavilion, which opened into a lobby 60 by 90 feet, beyond which and between the north and central pavilion was the auditorium, 200 feet long and 140 feet wide. On either side of the auditorium were arcades for exhibits, 78 feet wide by 300 feet long. In the auditorium the sessions of the International Commercial Congress were held and concerts were given. The pavilions were of brick and structural steel, and were each 90 by 380 feet. Each was two stories high. The second floor of the northern pavilion was devoted to the offices

of the exposition; the second floors of the other pavilions were given up to exhibits. These constitute the permanent part of the structure, and are destined to become the home of the Commercial Museum. Each entrance to the main building was flanked with pedestals, on which were groups of statuary, representing various industries, and the pediments over the entrances of all of the buildings contained heroic figures, symbolizing various aspects of manufacture and commerce. The walls of the main building were covered with a coating of white staff, and the cornices were of the same material. Around the roof ran an iron balustrade of rich design, and from the numerous staves floated the flags of the nations represented in the International Commercial Congress. The design of the building was by Wilson, Brothers & Co., assisted by G. W. and W. D. Hewitt.

The Implements, Vehicles, and Furniture Building was of the Flemish style of architecture, and had 72,000 square feet of floor space. The outside dimensions were 450 by 160 feet. Inside the finish was similar to that of the main exhibition hall—olive-green pillars and roof trusses, the ceiling finished in the natural color of the wood, and the walls painted in light tints. Four aisles ran lengthwise and six across the building, giving visitors an opportunity to see everything without hindrance. Broad walks and driveways surrounded it, and on the west was an automobile speedway. It was designed by Wilson, Brothers & Co.

The Transportation Building was 450 feet long and 75 feet wide. It was carefully designed by Wilson, Brothers & Co., and was adapted for the exhibits of locomotives and railroad rolling stock, electric cars, and equipment for electric railways. Its trackage, available for exhibits of rolling stock, was connected with the Philadelphia, Wilmington and Baltimore Railroad, of the Pennsylvania Railroad system.

Amusement Features.—These were grouped on the north end of the grounds, close to the entrance, on an avenue 800 feet long, called the Esplanade. The special attractions were a Chinese village; an Oriental theater, coffee house, and smoking room; an old plantation, Hagenback's trained animals, a glass works in full operation; Chiquita, the Cuban midget; Jim Key, the educated horse; the flag house of Betsy Ross Memorial Association, Edison's electric fairyland, and a cinematograph. Also throughout the life of the exposition two concerts were given daily in the auditorium by eight of the best-known bands and orchestras in the country, including the United States Marine Band and Damrosch's orchestra. Two concerts were given by the combined banjo, mandolin, and guitar clubs of Philadelphia, and on German day the combined singing societies of Philadelphia were heard in concert.

Opening Exercises.—At Mayor Ashbridge's office in City Hall were gathered, on the morning of Oct. 14, Admiral Sampson and the officers of his fleet, Gov. Stone and his staff, and the officials of the National Export Association, the Commercial Museum, and the Franklin Institute. These, with other distinguished guests, were escorted to the grounds by the marines of the North Atlantic squadron and the United States Marine Band. After the assembling in the auditorium, the first vice-president, Mr. W. W. Foulkrod, delivered an address, turning the exposition over to the Governor of Pennsylvania. He was followed by Director-General Wilson, on the plan and scope of the exposition, who said:

"The purpose of this exposition is to show the foreign consumer what the American can make, and how cheaply and how well he can make it." Gov. Stone, in behalf of the State, then accepted the exposition, and handed it over to the mayor of Philadelphia, saying in part: "We are selling our goods in every country on the globe, for the reason, and the only reason, that we sell a better article for less money than any other country can sell. The time has come for us to hoist our flag and proclaim it to the world, and that is the purpose of this exhibition. We invite the world's buyers to be the judge. We want the world's trade, and our demand is supported alone

tion of your most sanguine hopes of the success and influence of this undertaking." This concluded the exercises.

Exhibits.—As indicated by the scope of the exposition, the exhibits were confined for the most part to those American products for which a market is sought in foreign countries—electric devices, food products, new articles, and other things in the manufacture of which the United States excels. Of all these the exhibits were of decided interest. The American varieties of automobiles attracted considerable attention. Of conspicuous importance was the special collection of articles gathered for the exposition. Side by side

THE ESPLANADE ON OPENING DAY.

by the merits of our products." Mayor Ashbridge then accepted the exposition from the Governor, and then Congressman William P. Hepburn, of Iowa, chairman of the House Committee on Interstate and Foreign Commerce, delivered an address. The benediction was pronounced by Archbishop Ryan, of Philadelphia, and at its conclusion a telegraph instrument was moved to the front of the stage and communication was obtained with the White House in Washington. First Vice-President Foulkrod informed President McKinley that the exposition was ready to be declared open. The President at once sent the following message: "The opening of the National Export Exposition marks another important and most gratifying advance in the extension of our trade and commerce, and the promotion of more cordial relations in these respects with other nations. Accept for yourself and your associates my hearty congratulations and best wishes for the abundant realiza-

were shown, for example, the various forms of head gear worn in different parts of the world. Each display of this character was marked with a card showing where it was made, the cost of production, and the selling price. By a study of such samples a cloth manufacturer, for instance, could see at once what styles and qualities of print cloth are desired in the Philippines, and whether they are sold there at a price that he can meet in competition. This feature of the exposition was unique, and commanded much attention.

Commercial Congress.—This was convened on Oct. 12, and was opened by former Senator George F. Edmunds, representing the trustees of the Commercial Museum. He introduced the Hon. David J. Hill, Assistant Secretary of State, who, in behalf of President McKinley, extended to all the delegates assembled, and to all the foreign representatives who participated in the conference, the most cordial welcome of the United States. Subsequently addresses were

made by Mayor Samuel H. Ashbridge, the Hon. George F. Edmunds, and Director-General William P. Wilson, after which a few telegraphic messages were read, and then Dr. Hill announced that the congress was formally opened.

The congress continued until Nov. 1, and was attended by 350 foreign delegates, representing 40 nations. In addition to that, delegates were registered from 200 chambers of commerce of the United States. Some well-known person was chosen to preside each day, beginning with the Hon. Thomas B. Reed, and papers pertaining to topics affecting international trade were presented by men particularly interested and competent to consider every phase advanced. Typical of the papers read were the following: The Independence of Nations, by Edward Atkinson; The World as a Market for American Iron and Steel, by John H. Sternbergh; and The Southern Cotton Industry, by D. A. Tompkins.

Results.—At midnight on Dec. 2 Director-General Wilson of the exposition went to the south entrance of the exposition grounds and, in the presence of the officials, declared the exposition closed. Earlier in the evening there was a meet-

ing of the Board of Directors in the south pavilion, at which the reports of the heads of departments were received. In reviewing the results attained by the exposition, Director-General Wilson said that not only were the receipts sufficient to meet every obligation, but a substantial surplus would remain after all debts were paid. In many respects it had been the most successful exposition of its kind ever given in this country. As an instance of this he showed that the daily average of paid admissions was greater at the Export Exposition than the daily averages of the expositions at San Francisco, Atlanta, and Omaha. The total number of admissions at the Export Exposition had amounted to about 1,500,000. Treasurer Wright said that, after all debts were paid, a surplus of about \$50,000 would remain, which would be divided between the Commercial Museum and the Franklin Institute. Nearly all obligations had already been met.

That the exposition did a vast amount of good to the manufacturing interests throughout the country is generally admitted by all who were in a position to observe the nature and extent of the results which it attained.

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FARMERS' NATIONAL CONGRESS. The Farmers' National Congress of the United States met in nineteenth annual session, in Faneuil Hall, Boston, at 10 A. M., Tuesday, Oct. 3, 1899. Addresses of welcome were made by the Hon. Josiah Quincy, mayor of Boston; Gen. Francis H. Appleton, representing Gov. Wolcott, the State Horticultural Society, and the State Board of Agriculture; and E. G. Preston, secretary of the Boston Chamber of Commerce. Responses were made by the Hon. W. D. Hoard, of Wisconsin, president of the congress; John M. Stahl, of Chicago, secretary of the congress; the Hon. Benjamin F. Clayton, of Iowa, chairman of the Executive Committee of the congress; and the Hon. W. G. Whitmore, of Nebraska.

In his annual address President Hoard paid an eloquent tribute to "Boston and this grand old Commonwealth of Massachusetts, with their heroic history, their steadfast adherence since the beginning of the nation to republican ideals of government, their magnificent contributions of intellect and patriotic purpose to the growth of national character, achievement, and destiny." He said:

"The principal drawback and hindrance to agricultural thought, profit, and progress is a lack of union and sympathy between scientific theory and the everyday practice of the farm. As yet there is a wide gulf between the teacher of agricultural science and the working farmer, and our farmers are especially lacking in appreciation of the great value to them of the scientific teacher. They think that very much of what is done at experiment stations, taught at agricultural colleges, or related in dairy and farm papers, for instance, is nothing but theory. A new order of teaching agriculture needs to be instituted in this country, as is being done in some of the countries of Europe. The Canadian Government has solved this problem in one line at least—it has introduced dairying into regions where the industry was unknown by building cheese factories and creameries in the latest and most improved form, and placing them in charge of graduates of Government dairy schools. These

institutions were maintained until the farmers about them had learned the way and method of true practice, when they were absorbed by local capital. The difference between successful and unsuccessful men in all callings is not luck, but rather judgment and energy. Good judgment is an act of the mind, and one must have a mind well stored with sound knowledge and well trained to use it in order to exercise the best judgment. I see a ray of hope in the fact that this great national body of farmers have come to see the tremendous importance of this question. I hope you will include it every year in your programmes until discussion is crystallized into action all over the nation."

President Hoard also recommended co-operation among farmers, the conservation of the fertility of the farm, and the preservation of political independence. He said: "It is largely through the submergence of the political influence of the farming classes that the present unfair and offensive systems of taxation exist."

Committees on credentials, finance, and resolutions were appointed.

At the afternoon session Dr. Henry H. Goodell, President of the Massachusetts Agricultural College, read a paper on The Mission of the Experiment Station, which he stated to be "to apply scientific methods and principles to the investigation of all questions affecting rural economy; to teach the teacher, furnishing him with a body of facts from which coherent law can be deduced; to become bureaus of utility, distributing centers of information to the thousands applying to them for aid; to act as a detective force, preventing and exposing fraud in the sale of fertilizers, concentrated cattle foods, the products of the dairy, seeds, and the thousand and one spraying mixtures offered in the market; and the testing of foreign seeds, fruits, shrubs, and trees for either ornamental or economic purposes."

J. W. Stockwell, secretary of the Massachusetts State Board of Agriculture, read a paper on Decline of Farm Lands in the East: Cause and Remedy. Among the causes he mentioned unjust taxation, poor rural schools, and trusts. For

remedies he suggested electric railways, rural free-mail delivery, farmers' institutes, and granges.

At the evening session the Hon. Franklin Dye, secretary of the New Jersey State Board of Agriculture, read a paper on Agricultural Progress and Profit, in which he said:

"Greater intelligence applied to all agricultural work is the need of to-day. The chemist has

Farm Life. Among these problems he mentioned the ravages of insects, soil exhaustion, education of rural children, taxation, and land titles. He advocated stringent laws for the protection of birds; less grain and more stock and dairy farming; kindergarten work and practical elementary instruction in botany, chemistry, physics, and entomology in country schools; better tax laws and the Torrens system of land transfers; the parcels post; and thorough organization of farmers.

He was followed by E. F. Wetstein, of Kentucky, in a paper on Intensive Gardening, who said: "The sharpness of competition compels us to raise many crops on the same ground and within a few months, and to do this the soil must be in an ideal condition. In the fall we apply between 50 and 75 tons of well-rotted stable manure to the acre. It is turned down to a depth not exceeding 4 inches. The following spring we plow to a depth of 10 or 12 inches. Commercial fertilizers may be used to advantage as a top dressing on crops while growing. Cow-peas, rye, Indian corn, and clover, sowed every two or three years to alternate with barnyard manure, have proved highly advantageous. I have realized a net profit of \$150 to \$200 per acre in one season."

At the evening session the Hon. J. H. Brigham, Assistant Secretary of Agriculture, delivered an address on Foreign Markets for Farm Products. He said: "With the exception of Hungary and Russia, we can produce horses cheaper than any other country in the world, while at the same time our horses are better suited to the requirements of Europe. The department has discovered a remedy for hog cholera which has resulted in a saving of 80 per cent. of the hogs affected. We can produce mutton for Europe just as economically as we can produce anything else. The department desires to build up the markets for American dairy products all over the world, because when our butter goes abroad we sell merely skill combined with sunshine. We purpose at the coming exposition in Paris to have our corn prepared in many ways and presented to the visitors, with literature printed in the several European languages, giving information concerning this great product of ours."

He was followed by Prof. Willis L. Moore, chief of the United States Weather Bureau, who spoke on Benefits of the United States Weather Bureau to the Farmer. He pointed out the fact that the weather forecasts had saved the California raisin producers and the stock raisers of the plains hundreds of thousands of dollars a year, and that much valuable property had been saved in the lower Mississippi valley by flood warnings. He called attention to the great benefit to farmers, gardeners, and stock raisers everywhere of the cold-wave warnings of his bureau.

Thursday morning the Hon. C. C. James, Deputy Minister of Agriculture for Ontario, Canada, read a paper on Teaching the Elements of Agriculture in the Common Schools, which, he said, might be made optional in city and town schools, but should be obligatory in rural schools. He said that in rural schools the pupils should learn about the air and the soil, the growth of plants and of animals, and their diseases; and especially that they should learn to see, to touch, to hear, and even to smell and taste. "If their senses are rightly trained, they will be able to acquire facts for themselves. One of the greatest educational curses is to train a child to become an intellectual miser—a mere hoarder of facts."

The Hon. L. S. Coffin, ex-Railway Commission-

WILLIAM D. HOARD,

PRESIDENT OF THE FARMERS' CONGRESS SINCE 1890.

revealed the laws, hitherto unknown, by which the farmer, in co-operation with Nature, may secure greatest results at least cost. By the use of his intellect, by skill, by utilizing the information placed at his disposal, by better methods, one man moves forward to success on the farm, while another, failing to apply business principles and common-sense methods, loses in the game. We are face to face with new conditions. The world will not wait for the man who stands still in his calling. The nonprogressive man must drop out of the ranks."

At the morning session on the 4th the Hon. W. B. Powell, of Pennsylvania, delivered an address on Inventions for Farmers, in which he pointed out that 90 per cent. of the patents for inventions granted in the United States are to farmers or farmers' sons; that a very large percentage of the patents granted are for farm implements and machines; that inventions put to practical use within the past twenty-five years only had revolutionized farming; and that the farmer who did not avail himself of what invention had done to multiply the farmer's capacity for production put himself at a great disadvantage. Mr. Powell pointed out that many of the most useful and profitable inventions had been of seemingly unimportant and certainly simple things, and he called attention to several needed inventions to accomplish simple but highly useful results.

The following amendment to the constitution was adopted: "The time and place of holding the annual meeting shall be determined by the Executive Committee, acting with the president and secretary, which committee shall have full power to make all proper arrangements therefor."

At the afternoon session W. S. Delano, of Nebraska, read a paper on Problems confronting

er of Iowa, addressed the congress on Railway Transportation. He said: "As the railway company takes the place and in some sense the obligation of the government to see to it that there are public highways for the movement of the commerce and travel of the nation, all patrons of these semigovernment railways should be treated equally. I am not yet a convert to the idea of the danger or wrong of the cheap long haul. As long as active competition holds sway between great trunk lines, I do not see how the amount of watered or real stock cuts much of a figure in freight rates. The farmers of the great West, although they have been ridiculed and maligned as favoring drastic granger legislation, know too well the value of railroad transportation to make an unreasonable war on railroads."

At the afternoon session Dr. E. B. Voorhees, director of the New Jersey Agricultural Experiment Station, read a paper on Fertilizers and their General Application, in which he emphasized the necessity for and economy of the judicious use of commercial fertilizers and the value and necessity of official inspection, and laid down the scientific principles of the general application of fertilizers. The congress extended a vote of thanks to Dr. Voorhees.

The Hon. James W. Robertson, Dominion Commissioner of Agriculture, Ottawa, addressed the congress on the Canadian Department of Agriculture. He said: "There are only some kinds of help which a government may with benefit and safety extend to its people—those that develop intelligence, skill, and the tendency and powers of organization. The Department of Agriculture believes in the newspaper. It is one of the most taking ways of diffusing information. We have employed traveling dairy instructors. The Government has established illustration stations—to give object lessons. Farmers have been encouraged in every practicable way to enlarge the sphere of co-operation with one another."

the perpetuation of the human family. Occupation, with ownership of land, will bring out the best results for the individual and the community. The difficulties the farmer has always faced has brought out in his character the essential destructiveness to overcome them, and by opposing he has grown strong in the struggle. To supply his wants and protect himself he has had to plan, devise, and build, thus developing constructiveness. The necessity to deal with and preserve young and tender plants and animals has cultivated in him a painstaking and fostering spirit."

The evening session was devoted to good roads. The Hon. W. W. Armstrong, of New York, speaking of Advantages of State Aid to Farmers, said that the State-aid law should not compel a locality to build good roads until the sentiment of the locality itself inaugurated the movement, and that it should provide substantial assistance to those localities desiring good roads, and in such a way that those localities most desiring good roads may get aid first. The Hon. H. T. Budd, Commissioner of Public Works of New Jersey, read a paper on What New Jersey Farmers think of State Aid, which made it clear that they heartily approved it. Mr. William E. McClintock, member of the Massachusetts Highway Commission, gave the history of The Roads built in Massachusetts by State Aid.

This session was presided over by Sterling Elliott, chief consul of the Massachusetts division of the League of American Wheelmen, and the programme was arranged by Otto Dorner, chairman of the Highway Improvement Committee of that organization. In this way the congress showed its sympathy with the good roads' movement and State aid.

Friday morning the Hon. H. C. Adams, Dairy and Food Commissioner of Wisconsin, read a paper on The Necessity of Pure-food Legislation. He said: "The people of this country spend at least \$300,000,000 for food products that are mixed with cheap or injurious adulterants or sold under misleading names. The food question is a serious one. It concerns the public health. It touches the public pocket. Oleomargarine has its rights. It has a right to be sold under its own name and color if not injurious to the public health. Pure-food legislation should be both State and national. A national pure-food law would give the food products of this country better standing in foreign markets."

At the afternoon session was read a paper prepared by Mr. H. R. Hilton, of Kansas, on The Western Tenant and his Eastern Landlord, in which it was shown that "the tenant farmer should be given a longer lease, and a chance to help himself, help his nonresident landlord, and help his State."

The evening session was treated to an eloquent address on Improved Farming in the South, by Col. T. C. Slaughter, of Texas. He said: "Cheap cotton is teaching us diversity of crops with a vengeance. The South has been and is still land poor, but new methods are coming into vogue. Booker T. Washington understands fully the true condition of his people, and every Southern citizen bids him Godspeed in his noble work. The South is building here and there silos, packeries, sugar refineries, canneries, flouring mills, wool and cotton and oil mills; she is organizing State and county farmers' institutes, horticulture, dairy, cattle, sheep, swine-breeders', and truck-growers' associations; she is agitating the question of teaching agriculture in her common schools; she is learning to grow early vegetables,

JOHN M. STAHL,
SECRETARY OF THE FARMERS' CONGRESS.

Dr. E. L. Furness, of Indiana, presented a paper on Farming as it Influences and is Influenced. He said: "Everywhere man clings to the land. It is the earth that nourishes him, and on the rational and scientific culture of the soil depend not only the existence and power of nations, but

fruits, potatoes, and lambs; and she is learning the use of the best improved implements."

The congress voted to include in the printed proceedings of the meeting a paper on Dairying, prepared by the Hon. B. Walker McKeen, secretary of the Maine State Board of Agriculture, which there was not time to have read.

BENJAMIN F. CLAYTON,
PRESIDENT OF THE FARMERS' CONGRESS, 1900-1901.

The following officers were elected to serve for two years: President, the Hon. W. D. Hoard, of Fort Atkinson, Wis.; first vice-president, Capt. R. G. F. Candage, of Massachusetts; second vice-president, Col. John S. Cunningham, of North Carolina; secretary, John M. Stahl, of Chicago, Ill.; first assistant secretary, George A. Stockwell, of Rhode Island; second, D. C. Kolp, of Texas; third, E. A. Callahan, of New York; treasurer, the Hon. Levi Morrison, of Pennsylvania; executive committee, the Hon. B. F. Clayton, of Indianola, Iowa, chairman; Dr. E. L. Furness, of Indiana; the Hon. W. G. Whitmore, of Nebraska; E. F. Wetstein, of Kentucky; Col. T. C. Slaughter, of Texas. The following State vice-presidents were chosen: Alabama, George I. Motz; Arkansas, R. R. Dinwiddie; California, D. L. Cantlin; Colorado, F. Bemis; Connecticut, J. H. Hale; Delaware, J. A. Whitaker; Florida, T. J. Appleyard; Georgia, W. G. Northen; Idaho, W. H. Buchanan; Illinois, A. F. Moore; Indiana, J. N. Babcock; Indian Territory, Mrs. Julietta A. Jordan; Iowa, Eugene Secor; Kansas, T. M. Potter; Kentucky, C. S. Longest; Louisiana, John Dymond; Maine, O. Gardner; Maryland, W. L. Amos; Massachusetts, O. B. Hadwen; Michigan, C. S. Kelsey; Minnesota, W. M. Liggett; Mississippi, Charles Scott; Missouri, G. W. Waters; Montana, C. W. Hoffman; Nebraska, P. M. Morse; Nevada, S. P. Davis; New Hampshire, J. D. Roberts; New Jersey, Franklin Dye; New Mexico, A. Goetz; New York, F. E. Dawley; North Carolina, J. S. Cunningham; North Dakota, S. M. Edwards; Ohio, D. L. Pope; Oklahoma, H. A. Todd; Oregon, R. Baird; Pennsylvania, John Hamilton; Rhode Island, H. L. Greene; South Dakota, H. L. Loucks; Tennessee, G. M. Slaughter; Texas, W. A. Rhea; Vermont, D. H. Morse; Virginia, H. E. Alvord; Washington, D. Buchanan; West Virginia, John Myers;

Wisconsin, E. M. Anderson; Wyoming, E. L. Ramsey.

Resolutions were adopted favoring rural free-mail delivery, and asking for its rapid extension; protesting against any national appropriation to be expended directly or indirectly in the irrigation of lands; recommending farmers to write to members of legislatures and Congress in favor of the legislation asked for by the congress; requesting Congress "to pass an act providing that no dairy or food products shall be falsely branded or labeled as to the State or Territory in which they are made or produced"; commending the efforts of Massachusetts to exterminate the gypsy moth, and recommending national aid in the work; recommending to the States in which bovine tuberculosis exists an investigation of that disease to determine if there may not be a better way of treating the disease than is now in practice; requesting Congress to take such action as may be necessary to prevent unjust discrimination in freight rates; calling on Congress to enact such legislation as will enable American-built mail carriers and freighters to compete successfully with the subsidized and bountied merchant ships of foreign countries in carrying our imports and exports; requesting Congress to enact a law providing that oleomargarine, butterine, imitation butter, imitation cheese, etc., when transported into any State or Territory, whether for sale, use, or storage, shall upon arrival become subject to the laws of such State or Territory enacted in the exercise of its police powers, and not be exempt by reason of being transported in the original importer's package; requesting the several States to support in a greater degree the public-school system; commending the Pan-American Exposition in 1901 as an opportunity for the complete representation of the agricultural resources of the Americas; approving the efforts of the National Dairy Union to secure the passage of a law by Congress increasing the internal-revenue tax on oleomargarine to ten cents a pound; asking Congress to enact a pure-food law, prohibiting the transmission from State to State of articles of food which are injurious to the public health and the interstate traffic in adulterated foods, and compelling the labeling of compound foods in such a manner as to advise consumers of their character and composition; declaring in favor of the patriotic principle of home-grown products to supply the needs and requirements of our people, and especially commending the beet-sugar industry; and asking Congress to pass a law to prevent the false branding and labeling of maple sugar or maple sirup as to the State in which it is manufactured or produced. The congress also adopted the usual resolutions of thanks to the press, to those who had welcomed the congress to Boston, and to all who had made the meeting of the congress profitable or pleasant.

FINANCIAL REVIEW OF 1899. Early in the year there was more or less political friction between Great Britain and France growing out of the irritation resulting from the Fashoda incident, and at the same time the feeling seemed to prevail among the French people that Great Britain desired to provoke war. The action of the Bank of France, at the close of the previous year, in refusing to discount financial bills, though it was intended to force the French banks to withdraw money they had so long employed in promoting speculation in Germany, was thought to give some color to the rumor that the Bank of France had reason to know that war with England was impending. The internal

political condition of France was unsettled because of the Dreyfus affair, and a sentiment widely prevailed throughout Europe that a military coup might be precipitated. This feeling was so intense in France that depositors largely withdrew money from banks, and some of them remitted it to London, indicating want of confidence in the Government. The political and financial conditions here noted tended to check business throughout Europe at the beginning of the year. Fortunately, however, more cordial relations were established between Great Britain and France by the end of January through the pacific declarations of the French ambassador to London, and also through assurances by Mr. Chamberlain, of the British Cabinet. The situation rapidly improved, business revived, and the outlook grew quite hopeful. Though the Dreyfus affair began in February to be more or less of a disturbing factor in France, its influence was entirely local, and prosperous business conditions generally prevailed, and especially throughout Great Britain. The sudden death of President Faure, of France, on the 16th was followed by the election of M. Loubet on the 18th, and, though the demonstrations of the revolutionists against the new President were disturbing, nothing serious resulted therefrom. General trade continued to expand in England, though speculation languished in London. Money, however, was in active demand, reflecting the improvement in business, and there seemed to be an impetus given the latter by the British agreement with France, toward the end of March, settling the respective spheres of influence in Africa of both countries. Until the middle of April there was not an event of importance to cause the least apprehension. Then the petition of the Uitlanders to the British Government for its intervention with the Transvaal Government for the redress of grievances resulted in some political friction between the two governments, which was intensified early in May by the refusal of President Krüger to make the least concession either to the Uitlanders or to the mining industry. Gradually the political situation grew more tense, and toward the end of June war seemed unavoidable. There was, however, little interruption to trade, though speculation in London was held in check. In July political conditions grew more hopeful, and they so continued until near the end of September, with a growing conviction that President Krüger would finally recede from his position of opposition to British demands. Then the insistence of the English Colonial Secretary that President Krüger should promptly accede to the British requirements brought about an acute political crisis, which was followed, Oct. 10, by an ultimatum by the Transvaal President demanding that "all troops on the borders of the republic shall be instantly withdrawn, that re-enforcements of troops which have arrived in South Africa shall be removed within a reasonable time, and that her Majesty's troops which are on the high seas shall not be landed at any port of South Africa." No reply was made by the British Government to this ultimatum, and on Oct. 11 a movement of troops of the Orange Free State, which had formed an alliance with the Boers, began, and a state of war was inaugurated. While British military preparations then became active, the financial preparations by the Bank of England had already begun, and on Oct. 3 the bank rate was raised from $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent., and on the 5th from $4\frac{1}{2}$ to 5 per cent., the managers of the bank foreseeing that, as the country would soon have its supplies of gold from the

Transvaal (amounting to at least £1,500,000 per month) cut off, measures must be taken to attract gold from the Continent. The double raise in one week in the bank rate, it may be noted, was precipitated by an advance by the Imperial Bank of Germany on the 3d to 6 per cent. Thereafter financial tension prevailed throughout Europe, and on Nov. 30 the Bank of England rate was raised to 6 per cent. Troops were hurried from England to South Africa; fast transports were secured from the transatlantic lines, more or less crippling ocean traffic, and international commerce was to some extent disturbed. The first important battle in Natal resulted in disaster to the British, Gen. White being defeated at Ladysmith on Oct. 30, and being thereafter besieged by a superior force. A column under Gen. Gatacre, moving to the relief of Kimberley, which was in a state of siege, was defeated at Stormberg, Dec. 10; another column, under Gen. Methuen, was entrapped at Magersfontein on the 11th; and Gen. Buller, moving to the relief of Ladysmith, was defeated at Chieveley, Tugela river, on the 15th. These successive disasters caused consternation in England. Field-Marshal Roberts was directed to supersede Gen. Buller in command of the forces in South Africa, and additional re-enforcements were sent to the seat of war. The Imperial Bank of Germany on the 19th advanced its rate to 7 per cent., and the Bank of France, which had raised its rate to $3\frac{1}{2}$ per cent. on the 8th, further advanced it to $4\frac{1}{2}$ per cent. on the 21st. Thus prevented from obtaining greatly needed supplies of gold from the Continent, the Bank of England, while maintaining a 6-per-cent. discount rate, adopted the expedient of raising the price of gold in order to attract the metal from New York. There was an absence of news from the seat of war after the defeat of Gen. Buller, and military operations were apparently unimportant for the remainder of the year.

More or less tension began to develop at Manila early in February between the United States military authorities and the Filipinos under Aguinaldo, and Feb. 6 the latter attacked the United States troops, inaugurating an insurrectionary movement, which continued almost uninterruptedly throughout the year. In November the insurgents were driven into the interior of Luzon, and the Filipinos thereafter conducted a harassing guerrilla warfare. Admiral Dewey, it may be noted, returned to the United States at the end of September, and was enthusiastically welcomed by the citizens of New York, Sept. 29 and 30.

By far the most important feature of the year was the rapid progress which was made in the organization of industrial and other combinations of capital, which were known as trusts. Such concerns as were organized in 1898, it may be noted, though having a total capitalization of \$873,263,000, then attracted comparatively little attention, simply exciting surprise at their magnitude. Early in 1899, however, facilities were offered by New Jersey and other States for the organization of these corporations, and they began to grow with marvelous rapidity, while the aggregate capitalization reached enormous amounts month by month. The apparent recklessness with which these organizations were created attracted the notice of conservative bankers, and in April, at the suggestion of Secretary Gage, the officers of the New York banks began to take measures for self-protection to guard against the threatened danger to the market of the great mass of overcapitalized properties, which were even then regarded as a serious menace to the

situation. The conservative measures above noted consisted principally in discriminating against the stocks of the new corporations when such stocks were offered as collateral on loans, the bankers with good reason insisting that the dividend-paying capacity of the properties should be fully demonstrated before the stocks could be recognized as adequate security. Influenced by this conservative policy, the digestion of such stocks as had already been sold by the promoters of the organizations was arrested, and the market for them became congested. The promoters of many new concerns found it difficult to secure capital sufficient to float their enterprises, and a large number were abandoned. Some schemes—notably iron and steel combinations—met with success, mainly because of the marvelous prosperity of these industries, and this success gave encouragement to the promoters of other enterprises, so that some progress was made with these organizations almost to the end of the year. Where success depended, however, upon borrowing in the market or the enlistment of capital other than that represented in the industry embraced in the combination, progress continued exceedingly slow, and increasing difficulties were experienced when the money market grew stringent. In the opinion of close observers, the stringency in money which was noticeable at intervals after August was in great measure due to the vast amount of overcapitalized properties, which were constantly being offered upon the market as collateral, and also to borrowings by the promoters of these organizations from institutions other than banks.

The grand total of stocks and bonds represented in the above-noted combinations created or projected during 1899 was \$5,215,795,000. Of this amount, the capital of completed industrial organizations was \$712,850,000 of preferred and \$1,125,650,000 of common stock, and \$182,395,000 bonds. The capital of other completed organizations was \$37,000,000 preferred and \$310,500,000 common stock, and \$50,000,000 bonds. The capital of uncompleted consolidations, pending at the end of the year, was \$619,500,000 common stock. The capital of consolidations projected and abandoned was \$1,110,700,000. The capital of new companies formed was \$769,850,000, and new issues of stock by other companies were \$288,350,000. This makes a classified total of \$749,850,000 preferred stock, \$4,233,550,000 common stock, and \$232,395,000 bonds; a grand total, as above noted, of \$5,215,795,000. Adding the capital creations of such organizations in 1898, as above, makes the enormous amount of \$6,089,058,000 in two years.

The organizations, it may be noted, embraced almost every conceivable branch of industry, from iron and steel to bicycles; from electric to compressed-air motors; from interoceanic-canal construction to matches; from railroad cars to automobiles—indeed, everything of whatever nature which was manufactured or otherwise produced was secured by the ever-watchful promoter for conversion into a consolidation or combination of some character. The attractiveness of the stocks of these companies was sought to be increased by provision for from 6- to 8-per-cent. dividends, most of which were made cumulative. The capitals of some of the companies were enormous, few being less than \$5,000,000, and by far the majority being between \$25,000,000 and \$100,000,000. The largest capitalization was that of the Carnegie Steel Company—\$350,000,000, of which \$100,000,000 was in bonds. This organization, however, was abandoned. The Distilling Company of America had \$55,000,000 of preferred

and \$70,000,000 of common stock; the National Steel Company, \$27,000,000 of preferred and \$32,000,000 of common stock; the Amalgamated Copper Company, \$75,000,000 of common stock; and other companies of similar character had equally large capitals. It is not surprising that conservative bankers early in the year reached the conclusion that such capital creations, which were in very many cases entirely unjustifiable, were a menace to the market. Neither is it surprising that the attempt to float these properties met with resistance through utter inability of the market to digest them.

A noteworthy incident of the year was the payment by the United States to Spain of \$20,000,000 gold for what is known as the Philippine indemnity. On April 11 ratifications of the treaty of peace between the United States and Spain were exchanged at Washington, M. Jules Cambon, the ambassador from France to the United States, representing the Spanish Government. On April 29 the State Department officially requested the Treasury Department to pay the \$20,000,000 indemnity to M. Cambon, whereupon four warrants for \$5,000,000 each were drawn, and on May 1 M. Cambon received these warrants and receipted for the same, thus completing the payment of the indemnity under the provisions of the treaty.

Not only was the payment of this indemnity noteworthy, but likewise was the manner in which the money was transferred to Europe. It should be observed that, owing to the scarcity of notes in the Treasury, the assistant treasurer at New York had since April in the previous year settled his debit balances at the New York Clearing House with gold. In order to avoid the daily transfer of the metal between the subtreasury and the clearing house for this purpose, the assistant treasurer devised a form of receipt which, with the concurrence of the Clearing House Association, was accepted in lieu of the gold. This receipt represented the theoretical deposit of gold in the subtreasury. For example, the manager of the clearing house would collect from the assistant treasurer the amount of the debit balance of the latter at the clearing house for that day, whereupon the assistant treasurer would theoretically pay this sum in gold. The manager would then theoretically deposit this gold in the subtreasury, taking therefor a receipt or receipts for divisional parts of the total amount, which receipts, drawn to order, would be paid by the manager to such banks as were creditors at the clearing house on that day. The receipts were available by any of the banks for the settlement of indebtedness at the clearing house or for deposit at the subtreasury in the customs fund, against which banks having the accounts of importers drew checks for the payment of duties at the customhouse. Gradually, therefore, the receipts would be returned to the assistant treasurer and be canceled, having performed the original function of settling his debit balance at the clearing house, and indirectly the later function of the payment of duties at the customhouse. And this too, it should be observed, without the bodily movement of gold.

On May 4 the first of the three warrants for \$5,000,000 of the Philippine indemnity above noted was deposited by a representative of the French embassy with Mr. James Stillman, president of the National City Bank of New York, for collection. This warrant, instead of being collected by the bank directly from the assistant treasurer, which manner of collection would involve the movement of gold, was collected through the clearing house on the follow-

ing day. The process of collection then involved the presentation by the manager of the clearing house to the assistant treasurer of this warrant, precisely as other vouchers of the indebtedness of this official at the clearing house were customarily presented, and payment thereof was made in the manner above described, with receipts representing the theoretical deposit of the gold in the subtreasury by the manager of the clearing house. The remaining warrants for \$5,000,000 each of the Philippine indemnity were collected in a similar manner, and the receipts representing the amount were in due course returned to the assistant treasurer in settlement of obligations to the Government and canceled. Thus was the Philippine indemnity collected without the removal of the gold from the vaults of the Treasury.

The manner of the transfer of the indemnity to Europe and of the final settlement with the Spanish Government through the Deutsche Bank of Berlin is thus described by the secretary of that institution:

"As correspondents of the Bank of Spain we contracted on the 27th of April, 1899, to place in Europe within twenty days, and at a fixed rate of exchange, the United States indemnity for the Philippine Islands of \$20,000,000 put at Spain's disposal. We undertook to transfer £2,000,000 to London, 40,000,000 francs to Paris, and the balance of about 10,000,000 marks to Berlin, in which cities the Spanish Government had, as it permanently has, interest coupons maturing of its foreign debt issued in the English, French, and German markets.

"Under our instructions the Spanish authorities directed the French ambassador to the United States to receive from the United States Treasury the \$20,000,000 and to pay the same to the National City Bank of New York.

"On May 15, 1899, we had completed our payments in London, Paris, and Berlin, and on the same day the National City Bank of New York received the last installment on account of the \$20,000,000, the entire transaction being thus terminated as far as the two governments were concerned.

"It is hardly necessary to add that the entire \$20,000,000 could not have been transferred from New York to Europe within so short a period without disturbing the exchange and money markets. We therefore, on joint account with the National City Bank, made the necessary advances to spread the operation over a longer period, and arranged to settle the Spanish claim by making payment of the above-named amounts on this side, while the National City Bank was gradually securing the exchange on the other.

"At no time before, during, or after the war had we made any advance to the Spanish Government, nor has there ever existed any indebtedness to us from the same or from the Bank of Spain. The transfer of the entire indemnity and the payment of the \$20,000,000 was a *bona fide* exchange transaction carried out in the ordinary course of business.

"By referring to the Bank of Spain's weekly published balance sheets of May last it will appear that the bank's assets, under the heading of 'balances with foreign correspondents,' were increased at that time by the amount above stated, while the debit of the Spanish treasury to the bank simultaneously decreased 119,000,000 pesetas, which was reported to have been the amount credited to the Spanish Government by the Bank of Spain for the United States indemnity."

The following tabular survey of the economical conditions and results of 1899, contrasted with those of the preceding year, is from the Commercial and Financial Chronicle:

ECONOMICAL CONDITIONS AND RESULTS.	1898.	1899.
Coin and currency in the United States, Dec. 31.....	\$2,179,049,124	\$2,253,133,438
Bank clearings in the United States.....	\$68,381,197,734	\$68,977,908,198
Business failures.....	\$180,662,890	\$90,879,889
Imports of merchandise (year).....	\$634,964,448	\$798,845,571
Exports of merchandise (year).....	\$1,255,546,266	\$1,275,499,871
Gross earnings 119 roads (year).....	\$666,263,785	\$780,883,810
Railroad construction, miles.....	3,300	4,500
Wheat raised, bushels.....	875,148,705	547,303,846
Corn raised, bushels.....	1,924,184,680	2,078,143,938
Cotton raised, bales.....	11,825,883	9,500,000
Pig iron produced (tons gross).....	11,773,934	13,620,708
Anthracite coal (tons gross).....	41,869,751	47,665,203
Petroleum production, barrels.....	81,100,630	82,800,000
Immigration into the United States (fiscal year).....	229,233	311,715

Money.—As was the case in 1898, the noteworthy feature of the Treasury situation was the great abundance of gold. The net holdings of this metal, in coin and bullion, were, at the end of December, 1898, \$246,529,176. Owing to the usual disbursements at the beginning of this year, this amount was reduced by the close of January to \$228,652,341. By April 30, however, there was an increase to \$246,140,226. In consequence of the payment of the Philippine indemnity in the following month, there was a reduction by the end of May to \$228,415,238. This amount, however, was the lowest of the year. Thereafter the net gold holdings of the Treasury increased, and by Oct. 12 they were \$258,081,565. At the close of the year they were \$213,187,408. It may be noted that in August the Treasury Department resumed the issue of gold certificates, which had been suspended since the beginning of 1896, and the outstanding certificates at the end of December were \$184,844,619.

At the beginning of the year the New York associated banks held \$173,442,100 specie, nearly all of which was gold coin. This amount was increased by Feb. 25 to \$202,658,300. Then came a reduction by April 8 to \$187,152,500, followed by an increase to \$206,876,500, the maximum of the year, May 27. From that amount there was a decrease to \$130,778,300, Nov. 18. The specie holdings by the banks at the end of the year were \$143,496,900.

The loans of the associated banks at the beginning of the year were \$713,803,800. There was an increase to \$793,852,900, the maximum of the year, July 8, followed by a decrease, due to liquidation, hereinafter noted, to \$676,636,400, Nov. 25. The loans at the end of the year were \$673,689,400. The movement in specie was as above noted. The bank holdings of legal tenders at the beginning of January were \$56,808,700. The maximum of the year (\$61,156,500) was recorded Jan. 28. Changes were comparatively slight until after June 17, when the amount held was \$59,787,800. Thereafter, however, there was a gradual reduction to \$46,337,200, the minimum of the year, Nov. 11, and the amount held at the close of the year was \$52,682,900. The deposits of the banks were \$826,881,700, Jan. 7. There was an increase to \$914,810,300, the maximum of the year, March 4, followed by a reduction to \$883,595,300, April 29. Then came an increase to \$909,004,800, June 24, succeeded by a decrease to

\$736,836,900, the minimum of the year, Nov. 18. The amount of deposits at the close of the year was \$740,040,900. The surplus reserves of the banks were \$23,530,375 at the beginning of the year. There was an increase to \$39,232,025, Jan. 28, followed by a reduction to \$15,018,825 by April 8, and then came a rise to \$43,933,725, the maximum of the year, May 27. There was a rapid reduction to \$5,062,475 by July 8, succeeded by a recovery to \$15,082,350 by Aug. 19; but thereafter there was an irregular decrease to \$6,852,200 deficiency, the minimum of the year, Nov. 25. This deficiency in the reserve, it may be noted, was the first recorded since Aug. 12, 1893. The surplus reserve at the end of the year was \$11,168,075.

The condition of the New York Clearing House banks, the rates of interest, exchange, and silver, and the prices of United States bonds on Jan. 2, 1900, compared with the same items for the preceding two years, are given in the following table:

ITEMS.	1898.	1899.	1900.
NEW YORK CITY BANKS:			
Loans and discounts.....	\$607,781,600	\$713,808,800	\$673,680,400
Specie.....	104,730,700	173,442,100	143,496,900
Circulation.....	15,507,900	15,868,900	16,042,700
Net deposits.....	675,064,200	898,981,700	740,046,900
Legal tenders.....	79,824,100	56,908,700	52,682,900
Required reserve.....	168,786,050	306,730,425	185,011,725
Reserve held.....	184,554,800	230,250,800	196,179,800
Surplus reserve.....	\$15,788,750	\$23,530,375	\$11,168,075
MONEY, EXCHANGE, SILVER:			
Call loans.....	3½	2 to 2½	7
Prime paper, 60 days.....	4 to 5	3 to 3½	6
Silver in London, per ounce.....	28½d.	27½d.	27½d.
Prime sterling bills, 60 days.....	\$4 88	\$4 82½	\$4 82½ to \$4 88
UNITED STATES BONDS:			
Currency 6s, 1899.....	103½ bid	102½ bid	*
4½s coupon †.....	99½ bid	99½ bid	102½ bid
4s coupon, 1907.....	114½ bid	113½ bid	115 bid
4s coupon, 1925.....	128 bid	129 bid	132½ bid
3s coupon, 1918.....		107½ bid	110½ bid
5s coupon, 1904.....	114 bid	112½ bid	118½ bid

* Paid off.

† Extended at 2 per cent.

Money on call loaned at the Stock Exchange during the year at 1 per cent. in March and at 186 per cent. in December, the higher rate resulting from a sudden panic in the money market on Dec. 18, the culmination of influences which had gradually increased the monetary tension since October. Though the January settlements were almost unprecedentedly large, there was comparatively slight disturbance to the money market, in consequence of preparations therefor. This was due to the fact that such preparations were completed early in the previous week, and the resulting accumulations of money were freely loaned after the middle of the first week in January, causing a fall in the rates for money on call at the Stock Exchange to 2½ per cent. from 6 per cent. early in the week. For the remainder of the month the money market was easy, and rates on call averaged 3½ per cent. This easy tone continued throughout the month of February and in March until toward the close, and the lowest rate of the year (1 per cent.) was recorded after the middle of this month. Toward the close, however, money on call grew more active, because of rapidly decreasing bank reserves, and loans were made at 9 per cent. In April and in May, though bank reserves recovered, money was more or less active, loaning as high as 8 per cent. in the first-named month and at 7 per cent. in April, and as low as 2 per cent. each month. The activity continued throughout June and July, again influenced by low bank reserves, with loans in June as high as 15 per

cent. and in July at 7 per cent., while the lowest rate each month was 1½ per cent. The bank reserves partially recovered again in August, resulting in more normal conditions for money, and loans were made at 5 per cent. and at 2 per cent. In September and thereafter until the end of the year the monetary situation was entirely unique. At every important center of the country except this city, and even in other branches of the money market at this center, money was apparently in good supply. Indeed, in some of the Western centers the offerings of money were so greatly in excess of the local demand that investments were made thereat in New York commercial paper, and much money belonging to Western banks was loaned in this city on time on pledge of stock collateral. Moreover, the stringency at this center was chiefly observable in call money, of which, because of the low bank reserves, there was an insufficient supply. It was during October and November that the rate

ber and in November for call loans. The attempts of the Treasury Department, Oct. 10, to relieve the monetary stringency at this center through the anticipation of interest on the public debt, and later, Nov. 15, through the purchase of bonds, were only partially and temporarily effective, and it was not until early in December that the situation grew more normal. Even then there were almost daily spasms of activity in the call-loan branch of the market, causing money to loan as high as 12 per cent., though loans were made as low as 3 per cent. Toward the end of the second week in December the London discount market grew quite tense by reason of the succession of disasters to the forces of Gen. Gat-acre near Stormberg, to those of Gen. Methuen near the Modder river, in Cape Colony, and to those of Gen. Buller near Colenso, Natal. The Bank of England, instead of raising its rate of discount, advanced its price for American eagles and for gold bars, and, moreover, offered advances on gold while in transit with a view to attracting the metals from New York, and consequently gold to the amount of \$2,400,000 was shipped hence to London on the 16th. Almost concurrently the Globe National Bank of Boston, which, being embarrassed, had received temporary aid from the Boston Clearing House, could not fulfill the obligations which the directors had undertaken for the rehabilitation of the bank, and therefore it was placed in the hands of a receiver. At the same time the Broadway National Bank of Boston suspended as the direct result of the failure of a firm of which the vice-president of the bank was the principal member. These

day of the year and the movement of gold to London continued. It should be observed that assurances were given during the last week that the depositors of the Globe National Bank and of the Broadway National Bank of Boston would be paid in full, and a reorganization of the company made it certain that the depositors of the Produce Exchange Trust Company of this city would sustain no loss. These assurances seemed to aid in restoring confidence in the situation. The national banks of this city and elsewhere throughout the country altogether deposited \$17,000,000 Government bonds as security for public money, and the deposits of internal-revenue collections in depository banks began perceptibly to increase. The entirely local character of the monetary derangement above noted was again strikingly illustrated by the fact that rates for money did not materially advance in Boston during the disturbance at that center; neither was there any special demand for money on time in this city, while commercial paper was nominally quoted at 6 per cent.

The clearings of the New York associated banks were unprecedentedly large during 1899, amounting to \$60,761,791,901, against \$41,971,782,437 in 1898. Clearings of all banks in the country were likewise beyond precedent, amounting to \$93,977,903,186, against \$68,931,197,724 in 1898. The clearings on April 11 at New York were the greatest on record, amounting to \$352,882,567, and the largest balances were \$19,340,997, May 23. The following is the New York Clearing House statement of bank totals at the beginning of each quarter of 1899 and at the end of the year:

DATE.	Loans.	Specie.	Circulation.	Deposits.	Legal tenders.
January 7.....	\$718,808,800	\$173,442,100	\$15,858,300	\$326,881,700	\$56,808,700
April 1.....	779,361,100	187,144,800	13,870,600	898,917,000	63,079,800
July 1.....	786,884,000	182,466,100	13,588,500	906,127,900	58,090,400
October 7.....	710,582,500	147,252,400	15,534,700	781,158,800	48,680,500
December 30.....	678,689,400	143,496,900	16,048,700	740,046,900	52,682,900

embarrassments in Boston had more or less influence in this city, and on the following Monday, the 18th, there arose, toward noon, a sudden demand for money, due to the suspension of the Produce Exchange Trust Company of this city. Panicky conditions immediately developed, and the rate for money on call at the Stock Exchange rose to 186 per cent. A conference of representatives of large banks and prominent banking interests was promptly called, and in half an hour a pool of \$11,000,000—\$1,000,000 from each of those present—was contributed by these banks and bankers and loaned upon the Stock Exchange. This abundant supply of money caused the rate to fall to 6 per cent., but later there was a recovery to 40 per cent. On the following morning the Clearing House committee promptly assembled, offering \$10,000,000 on the exchange, but only \$5,000,000 was required. Late on Monday afternoon, it should be noted, the Secretary of the Treasury announced that the Government had decided to increase the number of depository banks and the amount of deposits in such banks by diverting to such of these institutions as would qualify by the deposit of Government bonds as security all of the receipts from internal revenue—estimated at about \$1,000,000 per day—for the ensuing thirty days or longer. This action by the Treasury Department and the above-noted action by the New York Clearing House committee fully restored confidence, and nearly normal monetary conditions thereafter prevailed for the remainder of the month, though money loaned on call at 25 per cent. on the last

Stocks.—The stock market was irregular during the first week in January, influenced by profit taking and also by reports of somewhat strained political and financial relations between Great Britain and France, and the tendency was downward. The market was partially affected also by reports that our army in the Philippines would meet with obstruction from the insurgents in seeking to gain possession of the territory. There was, however, a recovery in the tone of the market early in the second week in January, and then the conspicuous feature was enormous transactions at generally advancing prices, and there were also indications of buying of American stocks in London for New York account. The movement continued large and the tendency upward for the remainder of the month, and the market was influenced toward the close by rumors, which, however, were unconfirmed, of the formation of a through line of railroad from ocean to ocean by the consolidation of the Union Pacific with the New York Central system. The rise in prices was so rapid not only in investment but in speculative properties that it was not surprising that a reaction began with the opening of February. There was evidence that, tempted by the high prices, many Europeans had disposed of their stocks, and there was likewise evidence of comparatively free selling of investment properties by domestic holders. Lenders of money were, it may be noted, inclined to discriminate against certain classes of the new industrial stocks when they were offered as collateral on loans, and this conservatism had its

effect upon the speculation in these properties. The beginning of hostilities in Manila between the United States troops and the insurgents had some unfavorable influence temporarily. During the second week in the month there was an irregular recovery, aided by the subsidence of the political tension between England and France, above noted, and the sympathy aroused by the sudden death of President Faure seemed to contribute to a better feeling between France and Great Britain. A domestic event of a partially unsettling character in the second week was a phenomenal storm of snow which swept over the Middle States, and the storm was more or less severe in all parts of the country. The movement of freight on the railroads was interrupted, and the stock market was heavy until the end of the week, when there was a recovery in prices, with the anthracite coal shares leading, these being affected by the improved condition of the trade and by an advance in prices of the product. The market was active and generally strong for the remainder of the month, though at intervals irregular, in consequence of realizing sales. The unsettled state of affairs in the Philippines and a rumor, subsequently denied, that the American fleet in Manila had sunk a German war vessel had a depressing effect upon the market early in March; but it was observed that there was good support to railroad mortgages and to investment stocks, and prices speedily recovered. One favorable circumstance, it may be noted, was the adoption by the stockholders of the Central Pacific readjustment scheme. A firmer tone for money had a partially disturbing effect upon stocks soon after the opening of the month; but the tension was promptly relieved, whereupon prices recovered. One feature in the second week was an advance in some of the recently organized industrial properties, and there was exceptionally good buying of American Sugar Refining stock on a report that the differences with the opposition company had been adjusted. The denial of this report, however, caused a sharp fall in the stock; but this decline had no particular influence upon the rest of the market, which was strong, under the lead of the Anthracite Coal stocks, the Granger shares, and Brooklyn Rapid Transit, the movement in the latter being due to a report, later denied, that control of the Long Island Railroad had been obtained. The improvement in the industrial situation and in railroad traffic rates contributed greatly to the strength of the market for the remainder of the month. One notable movement was a rise, accompanied by large transactions, in New York Central, Chicago and Northwestern, and Union Pacific. The market, as a whole, was more buoyant in the closing days in March than it had been at any time since January; and this, too, notwithstanding the fact that the rates for money were unsteady, due to exceptional causes, and also that the railroad net earnings for February indicated the effect of the heavy snowstorms in that month. Activity in money on call and more decided discrimination by lenders against the newer industrial stocks caused the market to open active and lower in April, and there was quite general liquidation during the first week. The attitude of the banks toward the industrials was felt to be justified by the fact that, since the beginning of the year, there had been vast amounts of these stocks placed upon the market, and it was asserted that they were a menace to the situation. The remarks of Secretary Gage at the centennial anniversary dinner of the Manhattan Bank seemed to call public attention to the dangerous over-

capitalization of industrial properties, and the banks thereafter were even more rigid in their discrimination against these stocks as collateral on loans than before. While the industrial shares fell off as the result of this discrimination, there was good support to the better class of railroad properties, and improved earnings of the principal lines contributed to the advance in the Granger stocks. Toward the middle of the month there was a notable rise in the Vanderbilt properties, followed by a recovery in almost the entire list, and, influenced by renewed evidences of improvement in the iron and steel situation, and also by easier rates for money, the market advanced. One feature was a rise in Great Northern and in Chicago, Burlington and Quincy, and there was also good buying of Louisville and Nashville and Southern Railway preferred. Seasonable weather, encouraging reports regarding the crop situation, large railroad earnings, continued ease in money, and favorable news from the Philippines contributed to make the market generally strong in the closing week of the month. On the 1st of May stocks were unfavorably influenced by a rise in exchange to near the gold-exporting point, supposed to be due to preparations for the remittance of the \$20,000,000 indemnity to Spain, which indemnity was paid on the previous Saturday by the State Department to the French minister, representing the Spanish Government. The disclosure on the following day that the remittance would be made with exchange resulted in a partial recovery in stocks; but the passage of the Ford franchise tax bill by the State Legislature was an adverse influence, which tended to keep the market unsettled for the remainder of the week, and, indeed, during the greater part of the following week, when the selling was so liberal as to have a demoralizing effect upon most stock values, and the greatest declines were in the local traction stocks. Though there were occasional recoveries, due to repurchases to cover short contracts, the movement was quite irregular, with the first-class investment properties the strongest. On the last day of the week the sudden death of ex-Gov. Roswell P. Flower, who had been an active promoter of Brooklyn Rapid Transit, caused an unsettling fall in the stock of this company and in the shares of other corporations in which his stock commission house was interested. The decline was promptly checked, however, and by Monday of the following week large supporting orders in what were known as the Flower properties brought about a recovery. The calling by Gov. Roosevelt of a special session of the Legislature to reconsider the Ford franchise bill contributed to an improvement in the market, and, though irregular, it was generally strong for the remainder of the week and to the close of the month, the passage by the Legislature of the amended franchise law stimulating a rise in the local traction stocks in the last week. Railroad earnings continued to show increases, and the exceptionally strong position of the associated banks exerted a favorable influence upon the general market. The tendency was downward at the beginning of June. Higher rates for exchange, the unexpected shipment of gold to Europe, fears of the adverse effect of the franchise law, antitrust legislation in many States, and the outbreak of yellow fever at New Orleans had more or less of an unsettling influence, and there was some manipulation by the bear operators in the market. There was later a recovery in the tone and a more active speculation, influenced by favorable railroad earnings,

by an increase in the dividend on Atchison preferred, by easy money, and by good crop reports, and, though gold exports continued, they seemed to have little effect upon the stock speculation. Toward the middle of the month, though the share market was irregular with wide fluctuations, there was notably good buying of railroad mortgages at advancing prices. The irregular movement in stocks continued for the greater part of the remainder of the month, though there was a substantial advance in high-grade railroad shares. The industrial stocks were, however, generally lower, indicating an oversupply. The development of political tension between Great Britain and the Transvaal Government caused higher discounts in London, and there was some selling of securities for European account. In the closing days of the month the approval by the directors of the New York Central and of the Boston and Albany Railroads of the terms of a lease by the former of the latter had a favorable influence, and the improvement was aided by encouraging crop prospects, but the gain was in only a comparatively few specialties. One notable feature of the situation was the greatly augmented railroad earnings, due not only to increased traffic but to better rates.

The market opened in July with a good demand for railway stocks, and one feature was a well-sustained advance in Pennsylvania, while Louisville and Nashville sold at the highest price in seven years. The general market was strong for a few days, after which it irregularly yielded to realizing sales. Later material changes in the condition of the banks, as disclosed by the weekly statement, caused some apprehensions of activity in money, and this fear was taken advantage of by the bears to attack the market; but the first-class railroad properties were well sustained, and especially New York Central, Pennsylvania, Chicago and Northwestern, and Northern Pacific. Toward the middle of the month labor troubles on the Brooklyn Rapid Transit lines, encouraged, as was alleged, for speculative purposes, made these stocks temporarily weak, and after their recovery the market became quite dull. There was, however, a good demand for railroad bonds, and Western railway shares were favorably affected by large traffic returns. One notable feature in the third week was a rise of 25 points in New York Air Brake stock, on news of a favorable decision in its suit with the Westinghouse, but this was followed by a decline of 40 points. In the closing week of the month the market was dull, though generally strong, with the Trunk-line stocks, the Grangers, and shares of all properties directly or indirectly connected with the manufacture of iron and steel leading. General business activity, favorable crop prospects, large railroad earnings, and rumors of contemplated new railway combinations contributed to the improvement. The market was active and generally strong in August, influenced by the conditions above noted, and also by the assurance that the corn crop would be the largest on record. European purchases of stocks through the arbitrage houses were large; labor troubles at the West and the local gas war appeared to have no disturbing effect, and dividend announcements in Chesapeake and Ohio, Southern Pacific, and Union Pacific preferred stimulated buying of these properties. Among the notable movements were a rise in all the iron and coal stocks, and especially in Tennessee Coal and Iron. International Paper stock fell 12½ points, and Brooklyn Rapid Transit declined on the publication of the annual report, but later there was a recovery.

Toward the end of the month the development of an acute situation in the Transvaal caused some selling of stocks for European account; but the offerings were promptly absorbed, and the market closed strong, though the higher rates for money served somewhat to check speculative operations, particularly in the industrial properties. Early in September the reduction in bank reserves foreshadowed activity in money; the Transvaal situation seemed to be more threatening; there was some apprehension of trouble in France growing out of the Dreyfus trial, which disturbance, it was thought, might be unfavorably reflected in our exchange market, and the outlook was unfavorable. Still, notwithstanding these conditions, the market was strong, and there was a quite general advance in all properties, even the industrial shares. In the second week, however, a further reduction in bank reserves, accompanied by the calling of loans, resulted in more active rates for money at the Stock Exchange, and the tendency of the market was downward, with more or less sharp declines in the industrial stocks. The death of Cornelius Vanderbilt on the 12th, it may be noted, had no influence upon the market. One feature, however, was a fall of over 17 points in Brooklyn Rapid Transit, and there were wide fluctuations in Tennessee Coal and Iron, Colorado Fuel and Iron, the Tobacco, and the iron and steel stocks. The tendency was downward in the early part of the third week, influenced by further losses in bank reserves, calling of loans, and still dearer rates for money on the Stock Exchange. There seemed, however, to be supporting orders in many of the specialties at the decline, and quite noticeable buying of Delaware, Lackawanna and Western and Brooklyn Rapid Transit. Though money continued stringent in the last week of the month, the stock market was not unfavorably influenced thereby, partly for the reason that the engagement of \$2,350,000 gold in London for shipment hither was announced, and it was felt that the monetary situation might otherwise soon be relieved. The market was dull and irregular, however, and the most active stocks were Delaware, Lackawanna and Western, Tennessee Coal and Iron, American Sugar Refining, American Tobacco, Consolidated Gas, and Federal Steel. In the first week of October the disturbing influences were the double advance in the rate of discount by the Bank of England, a rise in the rate by the Imperial Bank of Germany, higher foreign exchange, and dear rates for money in our market. There was liberal selling of stocks for European account early in the week, and also large offerings by the commission houses and considerable bearish pressure, which at intervals had an unsettling effect, but good properties seemed to be well sustained, and the market closed at a substantial recovery, under the lead of the anthracite coal shares. The outbreak of war in the Transvaal in the second week of the month appeared to have no special influence upon our market, probably for the reason that the London security markets were not greatly affected. The local money rate was easier, and there was a better feeling, due to the offer of the Treasury to anticipate payment of the interest on the public debt. The stock market was irregular and lower after the middle of the week, with the traction stocks heavy and the iron and steel properties well supported. One feature was a rise in Pullman, on a rumor that control of the Wagner Palace Car Company had been obtained. There was a good demand for first-class railroad mortgages, which continued in the following week,

and then there was a more active and a stronger market than had been observed for nearly a month. One notable feature was a steady advance in Great Northern preferred, while Delaware, Lackawanna and Western and Chicago and Northwestern were higher. There was a broader market for stocks in the closing week of the month, influenced by favorable traffic returns, by the placing of large orders by several roads for rails and for equipment, by the consolidation of the Pullman and the Wagner Palace Car Companies, and by the announcement of the intended distribution of new shares of New York Central stock at par. The local traction stocks were quite strong, as also were the anthracite coal properties. Though money was active and higher on the Stock Exchange, the security market was generally strong, and it seemed to be favorably influenced early in the month by the result of the State elections, which indicated gains for the dominant political party, thus encouraging efforts which were expected to be made at the ensuing session of Congress for the radical reformation of the currency. Another favorable influence, it may be noted, was a fall in the rates for foreign exchange. The stock market soon grew irregular, however, in consequence of realizations, and the notably weak properties were the local traction issues and some of the recently organized industrial. The railroad shares were, however, well supported. The announcement on the 15th, by the Secretary of the Treasury, that he would purchase \$25,000,000 4- and 5-per-cent. bonds, for the purpose of relieving the monetary situation, had a stimulating effect upon the security market, and the tone was buoyant and the advance in prices quite decided, due to rebuying to cover short contracts, and one prominent feature was a good demand for railroad mortgages. There was also exceptional strength in New York Central, caused by reports that the lease of the Boston and Albany road would be ratified by the stockholders. Gradually more settled monetary conditions and improved dividend prospects exerted a stimulating influence upon the market, and the tendency was generally upward for the remainder of the month. One feature toward the close was an advance in New York Central and in Pennsylvania, on reports of a contemplated union of interests with a view to the establishment of more stable and remunerative rates for trunk-line traffic. The market for the industrials was unfavorably influenced early in December by the decision of the United States Supreme Court in the Addyston Pipe Line case, which decision was interpreted as unfavorable to the combinations of capital known as trusts. The recommendation in the President's message favoring legislation by Congress, having for its object the regulation of trusts, also tended to have a depressing influence upon these properties, and the whole market declined. The fall in prices gradually grew more decided, in consequence of a bearish demonstration upon certain specialties, notably Brooklyn Rapid Transit, and in the week ending the 16th the tendency of the market was almost uninterruptedly downward, influenced by the selling of securities for European account; by the increasing tension in the London discount market, accompanied by movements by the Bank of England to attract gold from New York; and by the disturbed condition in Boston, resulting from the embarrassments of the Globe National and the Broadway National Banks of that city. On the 18th, during the panic in the New York money market, elsewhere noted, the selling of stocks was general, and in very many cases the

lowest prices of the year were recorded. There was a partial recovery following the restoration of confidence in the monetary situation, but the stock market was more or less feverish thereafter until the last week in the year, when there was quite a general recovery in prices of leading properties, with good buying of investment stocks as the feature, and the market was strong at the close.

Total sales of stocks at the New York Stock Exchange for 1899 were 172,882,462 shares, against 112,699,957 in 1898; 77,324,172 in 1897; 54,490,643 in 1896; 66,583,232 in 1895; 49,075,032 in 1894; 80,977,839 in 1893; 85,875,092 in 1892; 69,031,689 in 1891; 71,282,885 in 1890; and 72,014,600 in 1889.

The following shows the highest prices of a few of the speculative stocks in 1898 and the highest and lowest prices in 1899:

STOCKS.	1898.	1899.	
	Highest.	Highest.	Lowest.
American Sugar Refining Co.	146½	188	114½
American Tobacco	158½	229½	78½
Brooklyn Rapid Transit	78½	187	61
Central New Jersey	99	186½	97
Chicago, Burlington and Quincy ..	125½	149½	114½
Consolidated Gas	90½	222½	168
General Electric	97	138	96½
Louisville and Nashville	65½	98½	68
Manhattan Elevated	120½	153½	85½
Missouri Pacific	46½	52½	33
Omaha	94	126½	91
Pacific Mail	46	55	35
Reading	29½	85	15½
Rock Island	114½	122½	100
St. Paul	120½	186½	112
Southern, preferred	48½	58½	40½
Tennessee Coal and Iron	32½	126	36
Union Pacific	44½	51½	38½
United States Leather, preferred ..	75½	84½	64½
Western Union	96½	96½	82

The following table shows prices of leading stocks at the beginning of the years 1898, 1899, and 1900:

STOCKS.	1898.	1899.	1900.
New York Central	106	128	131
Erie	14½	14½	11½
Lake Shore	170½	196½	205
Michigan Central	101	109	110
Rock Island	86½	114½	106½
Northwest, common	121½	142½	160½
St. Paul, common	94½	120½	117½
Dela., Lackawanna and Western ..	155	157½	178
Central New Jersey	96	98	118½

The Crops.—The early indications pointed to a smaller yield of winter wheat, owing to unfavorable conditions resulting from extremely cold weather in February, and the outlook for spring wheat was far from satisfactory until June, when prospects improved. The Russian crop of wheat was said to be deficient, and, as this report seemed to indicate the probability of a continued demand by Europe upon our supplies of grain, prices advanced at the distributing centers, stimulating the liberal marketing of reserves from the previous year's crop. Corn made good progress in July and in the later summer months, and the expectations then of an unprecedented yield of this cereal were fully realized. As the harvest of spring wheat progressed there seemed to be good evidence that the yield would be fully as great as that of the previous year, and the prospects for oats were regarded as excellent. The cotton crop made good progress, and early in the picking season there appeared to be assurance of a yield nearly as large as that of the last year. When the crop began to come into the market from the plantations, however,

it was seen that the yield was not likely to be as large as was expected, and the revised estimates placed the crop at not exceeding 9,500,000 bales. The most striking feature of the year was the steady advance in the price of cotton. English spinners, influenced by the conviction that there would be a large yield of the staple, refrained from buying early in the season. The price advanced in response to liberal purchases by Southern and Northern spinners, and this fact also seemed to deter buying by English manufacturers, though the Continental spinners bought largely. Toward November, however, the British manufacturers appeared to realize the fact that the crop would be below their early expectations, and then their purchases contributed to maintain the advance in the price of the staple to the end of the year. It is noteworthy that the exports of cotton to Great Britain for four months of the cotton year ending Dec. 31 were only 518,410,203 pounds, against 1,166,756,962 pounds for the same time in 1898, while exports to France were 223,140,120 pounds for the four months in 1899, against 252,127,048 pounds for the same period in 1898, and exports to Germany were 363,544,165 pounds for four months in 1899 and 550,868,410 pounds for the same time in 1898. Exports to Japan increased from 12,094,822 pounds in the cotton year 1898 to 49,660,787 pounds in the cotton year 1899. Another factor which more or less influenced the export movement not only for cotton, but for breadstuffs and for all exportable products, was the high ocean freight rates, which were caused by the withdrawal from the regular transportation lines of large numbers of steamers which were employed by the British Government for the transport of troops and military supplies to the seat of war in South Africa. The dearth of transportation facilities also materially checked the export movement in other commodities. The following shows the yield and the value of the crops for the years 1898 and 1899 on the basis of the price at New York at the beginning of the years 1899 and 1900:

PRODUCTS.	CROP OF 1898.			CROP OF 1899.		
	Yield.	Price, Jan. 3, 1899.	Value.	Yield.	Price, Jan. 2, 1900.	Value.
Wheat, bushels.....	675,748,705	\$0 81½	\$548,558 822	547,803,846	\$0 75½	\$413,898,533
Corn, bushels.....	1,924,184,660	44½	856,202,178	2,078,143,833	40½	849,441,323
Cotton, bales.....	10,745,106	5½	815,587,547	9,500,000	7½	866,125,000
Total values.....			\$1,720,258,042			\$1,681,464,856

Foreign Exchange.—The exports of domestic and foreign merchandise for the year ending Dec. 31, 1899, were \$19,953,405 above those of 1898, and the imports of merchandise were \$163,881,123 greater. The excess of merchandise exports over imports for the year was \$476,654,100, against \$620,581,818 for 1898. The excess of exports over imports of merchandise and gold and silver coin and bullion for 1899 was \$493,455,303, against \$503,278,544 in 1898. Gold imports were \$5,815,553 in excess of exports in 1899, against \$141,068,998 in 1898.

The rates for exchange were low at the beginning of the year, influenced by liberal supplies of commercial bills, and imports of gold from London to the amount of \$1,500,000 were announced in the first week. Sixty-day sterling was quoted at the opening of January at \$4.81½ to \$4.82, while sight sterling was \$4.84½ to \$4.84½, and cables were \$4.85½ to \$4.85½. Gradually the market grew stronger, influenced by a demand for seventy-day bills for investment, and

later by an inquiry for sterling for remittance against securities sold for European account. Toward the end of the month, however, the investment inquiry relaxed, commercial bills became smaller in volume, and the marketing of maturing investment drafts caused a slight recession in rates for short sterling. The tone was firm at the close of the month, with rates for sixty day, \$4.82½ to \$4.83; for sight, \$4.84½ to \$4.85; and for cables, \$4.85½ to \$4.85½. The tone was strong in February, with a good demand to remit for securities bought in London for New York account, and there was a dearth of commercial bills. The market opened with sixty-day sterling, \$4.83½ to \$4.83½; sight, \$4.85½ to \$4.85½; and cables, \$4.85½ to \$4.86. The highest and the closing rates for the month were \$4.84½ to \$4.84½ for long, \$4.86½ to \$4.86½ for short, and \$4.87 to \$4.87½ for cables. The Bank of England reduced its discount rate from 3½ per cent. to 3 per cent. on Feb. 2, and the Imperial Bank of Germany on Feb. 21 reduced its rate from 5 to 4½ per cent. The market opened weak in March, influenced by higher rates for money, and also by free offerings of bills against the Central Pacific readjustment scheme, and rates were \$4.84½ to \$4.84½ for sixty-day, \$4.86½ to \$4.86½ for sight, and \$4.86½ to \$4.87 for cables. Later easier rates for money in our market and a firmer tone for discounts in London caused a slight advance in sterling, after which the market grew dull, and it was without special feature until toward the end of the month. Then there was a very strong tone, influenced by rumors that preparations were being made for the remittance of the Philippine indemnity, it being assumed that when the money was paid by the United States Government it would be remitted through exchange, thus causing more or less of an urgent inquiry for sterling. The market was also influenced by a demand to remit for securities sold for European account, and there was a notable absence of all kinds of bills. The tone was easier at the close, at a recession of one quar-

ter of a cent from the highest rates to \$4.84½ to \$4.84½ for sixty-day, \$4.86½ to \$4.86½ for sight, and \$4.87½ to \$4.87½ for cables. High rates for money during the first week in April tended slightly to depress exchange, which, after opening at the figures above noted, fell to \$4.83½ to \$4.83½ for long, \$4.85½ to \$4.86 for short, and \$4.86½ to \$4.87 for cables. Toward the middle of the month there was a recovery, due to buying, which was supposed to be connected with preparations to remit the Philippine indemnity when it should be paid. The tendency was upward to the end of the month, when rates were \$4.85½ to \$4.85½ for sixty-day, \$4.87½ to \$4.87½ for sight, and \$4.87½ to \$4.88 for cables; the rate for sight, it may be noted, being close to the gold-exporting point. When the fact appeared that the remittance of the Philippine indemnity would be made through exchange, which had already been accumulated, the market for sterling, after opening strong at \$4.85½ to \$4.86 for sixty-day, \$4.87½ to \$4.88 for sight, and \$4.88½

to \$4.88½ for cables, suddenly developed weakness, and rates fell by the 10th to \$4.84½ to \$4.85 for long, \$4.86½ to \$4.87 for short, and \$4.87½ to \$4.87½ for cables. There was a gradual recovery, however, followed by an irregular movement, and the tone closed firm at \$4.85½ to \$4.86 for long, \$4.88 to \$4.88½ for short, and \$4.88½ to \$4.89 for cables. These rates clearly foreshadowed gold exports, and early in June there was a demand to remit for securities sold for European account, and during the month \$17,050,000 gold was shipped. The opening rates for exchange were the same as those at the close of May. The offerings of sterling against gold exports caused an irregular recession in rates until after the middle of the month, when there was a more decided decline, and the market closed easy at \$4.85½ to \$4.85½ for sixty-day, \$4.87½ to \$4.87½ for sight, and \$4.88 to \$4.88½ for cables, these rates being the lowest of the month. Gold exports ceased after the shipment of \$2,250,000 early in July. The exchange market opened at the figures ruling at the end of June, and there was a steady decline, influenced by dearer rates for money, until the 13th, when an advance in the Bank of England minimum to 3½ per cent. caused a temporary recovery. Later, however, the market grew easier, and it closed weak at \$4.83½ to \$4.83½ for long, \$4.86½ to \$4.86½ for short, and \$4.87½ to \$4.87½ for cables. Liberal offerings of long sterling, in the expectation of covering with grain and cotton bills later in the season, made exchange weak during the early part of August, and, after opening at \$4.83 to \$4.83½ for long, \$4.86½ to \$4.86½ for short, and \$4.86½ to \$4.87 for cables, there was a decline by the 10th to \$4.82½ to \$4.82½ for sixty-day, \$4.86 to \$4.86½ for sight, and \$4.86½ to \$4.86½ for cables. Then the Imperial Bank of Germany advanced its rate of discount to 5 per cent., in consequence of increasing tension at Berlin, and there was some expectation that the Bank of England would likewise advance its rate. Sterling grew firmer, so continuing until the 17th, when, there being no change in the Bank of England rate, the tone grew easier. Though irregular thereafter, the market closed heavy, with rates for sight sterling \$4.86 to \$4.86½, while those for long sterling and for cables were unchanged compared with the rates at the opening of the month. Higher rates for money dominated the foreign-exchange market in September, and the tendency was almost uninterruptedly downward. After opening at \$4.83 to \$4.83½ for long, \$4.86 to \$4.86½ for short, and \$4.86½ to \$4.87 for cables, the market advanced one quarter of a cent and then gradually declined to \$4.81½ to \$4.81½ for sixty-day, \$4.84½ to \$4.85 for sight, and \$4.85½ to \$4.85½ for cables by the close of the month. Gold to the amount of \$2,350,000 was shipped hither from London, the open market discount rates at that center advanced, and by the end of the month it was expected that the Bank of England would be forced to raise its rate because of the increasing tension in discounts in London. One feature of our exchange market was the negotiation of sterling loans as a measure of relief to the money market. On Oct. 3 the Bank of England advanced its rate of discount from 3½ to 4½ per cent., immediately following a rise by the Imperial Bank of Germany from 5 per cent. to 6 per cent., and on the 5th the Bank of England further advanced its rate to 5 per cent. The almost unprecedented occurrence of two advances in the rate of discount in one week by the Bank of England indicated extreme tension, which was clearly due to the rap-

idly developing acuteness in the relations between England and the Transvaal Government. The above-noted action by the Bank of England had a direct influence upon the exchange market, causing a fall in long and a rise in short sterling, rates being adjusted to conform to the higher discounts in London. After opening at \$4.81 to \$4.81½ for long, \$4.85½ to \$4.85½ for short, and \$4.86 to \$4.86½ for cables, rates for long declined to \$4.80½ to \$4.81, while those for short advanced to \$4.85½ to \$4.86, and those for cables to \$4.86½ to \$4.87. From these figures the whole market rose, and by the 10th rates had advanced to \$4.83½ to \$4.83½ for long, \$4.87½ to \$4.87½ for short, and \$4.88½ to \$4.88½ for cables. The rise, it may be noted, was directly due to the invasion of Natal by the Boers on the 11th. This news caused a sharp demand for exchange to cover bills previously sold. Moreover, the market was reported to be largely overdrawn, and hence the urgency of the inquiry for bills. After this demand subsided rates gradually fell off to the close of the month, when they were \$4.82½ to \$4.83 for long, \$4.86½ to \$4.86½ for short, and \$4.87½ to \$4.87½ for cables. The exchange market was influenced at the beginning of November by high rates for money, and later by the prospect of a less strained monetary situation through relief by the Treasury, and also by some relaxation in the tension of the discount market in London. Rates opened at \$4.83 to \$4.83½ for sixty-day, \$4.86½ to \$4.87 for sight, and \$4.87½ to \$4.88 for cables. Then there was a rapid fall until the 13th, due to dear money in this market, and rates on that date were \$4.80½ to \$4.81 for long, \$4.84½ to \$4.85 for short, and \$4.86 to \$4.86½ for cables. The market was further influenced by liberal offerings of commercial bills against cotton and breadstuffs, and also by drafts against sterling loans. After the announcement by the Treasury Department of the offer to buy \$25,000,000 bonds the exchange market sharply recovered, rates rising by the 17th to \$4.81½ to \$4.82 for long, \$4.86 to \$4.86½ for short, and \$4.87 to \$4.87½ for cables. A noteworthy feature was the movement in one week from rates almost low enough to permit gold imports to those which were almost high enough to justify gold exports. The market gradually grew weaker after the above-named date, affected by continued activity in money and by offerings of bills against purchases of stocks for European account, but it closed with a slight recovery at \$4.81 to \$4.81½ for long, \$4.86 to \$4.86½ for short, and \$4.87 to \$4.87½ for cables, influenced by the advance on the 30th of the Bank of England rate to 6 per cent. The tone was firm at the opening in December, with long unchanged at the above-noted figures, while short was higher at \$4.86½ to \$4.86½, and cables were advanced to \$4.87½ to \$4.87½. The Bank of France moved its rate of discount up to 3½ per cent. on the 7th, and the open-market rate at London grew firmer, more or less influencing our exchange market, which advanced with a firm tone. The news of the disastrous repulse of Gen. Buller by the Boers at Tugela river, near Chieveley, on the 15th, following the defeat of Gen. Gatacre at Stormberg on the 10th and of Gen. Methuen at Magersfontein on the 12th, caused consternation in England, and there was a security panic in London. The open-market discount rate consequently rose sharply, the Bank of England advanced the bid price for bar gold and for American eagles, and also offered to make advances on gold while in transit from New York. Influenced by these inducements, \$2,450,000 gold was

shipped hence to London on the 16th. Exchange grew firm, with figures adjusted to conform to the higher open-market rates in London, and the tone was strong. The Bank of France, it may be noted, advanced its rate of discount on the 21st to $4\frac{1}{2}$ per cent., while on the 19th the Imperial Bank of Germany advanced its rate from 6 per cent. to 7 per cent. Moreover, the Bank of France raised the premium on gold to rates which prohibited withdrawals of the metal from the bank for export. The crisis in money at this center on the 18th had a temporarily unsettling effect upon exchange. Offerings were, however, restricted, because of the almost entire absence of demand, and therefore rates did not show material declines. Later supplies of bankers' bills for remittance came largely from those drawn against gold exports, and, while there was a good supply of commercial drafts, they were promptly absorbed at full prices. The higher discount rates at London caused a gradual fall in long sterling in the third week of the month to \$4.80 $\frac{1}{2}$ to \$4.81, while short sterling advanced to \$4.87 $\frac{1}{2}$ to \$4.87 $\frac{1}{2}$, and cables to \$4.88 $\frac{1}{2}$ to \$4.88 $\frac{1}{2}$. Gold to the amount of \$5,425,000 was shipped to London in the week ending the 20th, and in the last week of the year the shipment to London was \$3,350,000. The exchange market closed quite strong at \$4.81 $\frac{1}{2}$ to \$4.82 for sixty-day, \$4.87 $\frac{1}{2}$ to \$4.87 $\frac{1}{2}$ for sight, and \$4.88 $\frac{1}{2}$ to \$4.89 for cables.

Railroads.—The business of the railroads showed almost uninterrupted gains during the year. Tariffs were well maintained from the beginning to the end of the year, and the railroad traffic was so great in the fall that, notwithstanding large additions to the equipment of the principal lines, there was a remarkable dearth of transportation facilities. Among the notable events of the year was the successful readjustment scheme of the Central Pacific Railroad Company providing for the payment in full of the claims of the Government, amounting to \$58,812,175; the lease by the Southern Railway of important lines, including the Mobile and Birmingham, the Northern Alabama, and the South Carolina and Georgia; the purchase by a syndicate of the Chicago and Alton; an increase of \$15,000,000 in Great Northern stock; the sale by the Delaware and Hudson of its canal; the lease of the Boston and Albany by the New York Central; the purchase by the Baltimore and Ohio of the Baltimore and Ohio Southwestern; an increase in the capital of the Southern Pacific from \$150,000,000 to \$200,000,000 to acquire the Central Pacific; the consolidation of the Pullman and the Wagner Palace Car Companies; the increase of \$15,000,000 in the stock of the New York Central to provide for 15,000 additional cars; the purchase by a syndicate of the interests of the Crocker and of the Stanford estates in the Southern Pacific; the authorization by the Pennsylvania Railroad Company of an allotment of \$13,000,000 stock to provide for new equipment and construction; and the acquirement by the Hocking Valley of control of the Toledo and Ohio Central. Dividends were increased by the Burlington, Cedar Rapids and Northern, the St. Paul and Omaha, the Louisville and Nashville, the Union Pacific, the New York Central, the Chicago and Northwestern, the Boston and Maine, and by other more or less important roads. Dividends were declared for the first time by the Iowa Central on its preferred stock; by the Chicago, Indianapolis and Louisville on its preferred stock; by the Chesapeake and Ohio; by the Evansville and Terre Haute; by the Hocking Valley; by the Pittsburgh, Bessemer and Lake Erie; and by the

Flint and Pere Marquette. One notable event was the acquirement by parties interested in the New York, Ontario and Western of the coal properties of the Lackawanna Iron and Steel Company in the vicinity of Scranton, Pa., estimated to contain from 25,000,000 to 30,000,000 tons of anthracite coal. It is noteworthy that very few foreclosure proceedings were instituted during the year, indicating the prevalence of prosperous conditions throughout the country. The Baltimore and Ohio receivership was terminated June 30, and later large purchases of the stock by the president of the Great Northern gave some color to a rumor that a close alliance between the two roads was contemplated.

The listings of railroad bonds on the Stock Exchange during the year amounted to \$446,634,000, and of new railroad stocks to \$410,716,630. Of the \$525,384,240 of bonds of all companies listed, \$154,304,760 represented new issues, \$22,908,000 old issues newly listed, and \$346,171,480 for replacing old securities. Of the \$704,172,605 stocks listed, including railroad and miscellaneous companies, \$311,420,285 represented new issues and \$392,752,320 for replacing old securities. The above-noted total of stocks listed was greater by \$175,918,609 than the total listings in 1898, and larger than the listings in ten years. The stocks placed on the "unlisted" department of the Stock Exchange, including those of 11 industrial corporations, those of the Brooklyn Rapid Transit Company, and of the Wagner Palace Car Company, amounted to \$286,313,650 common and \$142,187,400 preferred, a total of \$428,501,050.

The following shows gross and net earnings of the trunk lines:

ROADS.	1897-'98.	1898-'99.
PENNSYLVANIA:		
Gross earnings.....	\$65,608,612	\$72,922,812
Net earnings.....	20,659,962	22,144,462
NEW YORK CENTRAL:		
Gross earnings.....	45,774,240	46,184,658
Net earnings.....	16,263,226	17,055,076
ERIE:		
Gross earnings.....	33,740,861	38,752,708
Net earnings.....	8,302,522	8,562,778
BALTIMORE AND OHIO:		
Gross earnings.....	28,524,587	30,430,623
Net earnings.....	7,351,526	8,873,548

Manufacturing Industries.—The most notable feature of the year was the enormous increase in the organization of industrial concerns, elsewhere referred to. There was marvelous improvement in the iron and steel industry during 1899. Production of iron steadily increased, the demand was urgent, unsold stocks were depleted, and prices were more than doubled. At the end of the year the pig-iron production was 296,959 tons per week, or at the rate of 15,500,000 tons per annum, against an output of 11,773,934 tons in 1898. The price of Bessemer pig iron at Pittsburgh at the end of 1898 was \$10.64 per ton, while at the close of 1899 it was \$25 per ton. Steel billets advanced from \$15.90 per ton in December, 1898, to \$36.37 in the same month of 1899. Steel rails and, indeed, all manufactures of steel were in urgent request, particularly in the latter part of the year, and the principal railroads bought largely of rails and equipment, while the export demand for iron and steel products was entirely unprecedented. There was also a great expansion in the cotton-manufacturing industry not only at the South, but in New England. Standard print cloths at Fall River advanced from 2 $\frac{3}{4}$ to 3 $\frac{1}{4}$ cents per yard, and, under the influence of the improved condition of the industry, wages of opera-

tives were increased to the highest figures on record in recent years. The woolen industry was not so active as was that of cotton until after the middle of the year; then it gradually improved, and its condition was thereafter very satisfactory. Though there was less marked improvement in other lines of industry, all were prosperous. The dry-goods trade was exceedingly profitable throughout the greater part of the year in all branches, and consumption appeared to be largely in excess of production, causing generally advancing prices. Indeed, not since the resumption of gold payments was activity in trade and manufactures so general.

Commercial failures during the year numbered 9,337, the smallest since 1883, when they were 9,184. The liabilities amounted to \$90,879,889, against \$130,662,899 in the previous year, and they were the lowest since 1881, when \$81,155,933 were recorded. It is noteworthy that not only were the liabilities smaller in the aggregate, but they were less also in both manufacturing and trading in every section of the country, except New England, where the financial troubles in December involved several manufacturing concerns with heavy liabilities, though their failures were not due to the condition of their trade. Such uniformity of improvement throughout the country is extremely rare, indicating the exceptionally prosperous and sound business conditions prevailing during the year.

Exports of manufactures during 1899 were \$380,787,891, against \$307,924,994 in 1898, \$279,652,721 in 1897, and \$253,690,533 in 1896.

FINE ARTS IN 1899. Under this title are treated the principal art events of the year ending with December, 1899, including especially the great exhibitions in Europe and the United States, sales and acquisitions of works of art, and erection of public statues and monuments.

Paris.—As in 1898, the two Salons were obliged, on account of the preparations for the Universal Exposition of 1900, to give their exhibitions side by side in the Galerie des Machines, which after the close will be transformed into a Salle des Fêtes for the coming exposition. A single admission gave access to both exhibitions, the Société des Artistes Français receiving two thirds and the Société Nationale des Beaux Arts one third of the receipts. In the future art exhibitions will be held in the new Palais des Beaux Arts, now building in the Champs Elysées.

Paris: Salon of the Artistes Français.—The Société des Artistes Français elected the following officers for the year: Honorary Presidents, Léon Bonnat, Édouard Detaille; President, Jean Paul Laurens; Vice-Presidents, Benoit Édouard Loviot, Emmanuel Frémiet; Corresponding Secretary, Tony Robert-Fleury; Treasurer, Émile André Poisseau; Secretaries, Albert Maignan, Auguste Bartholdi, Jean Louis Pascal, Augustin Mongin.

The annual exhibition (May 1 to June 30) comprised 5,152 numbers, classified as follows: Paintings, 2,033; cartoons, water colors, pastels, miniatures, enamels, porcelain pictures, etc., 1,110; sculptures, 868; engraving on medals and precious stones, 111; decorative art, 244; architecture, 263; engraving and lithography, 523.

The following are the honorary awards for 1899: Section of Painting: Medal of honor, Francis Tattetgrain, Saint-Quentin pris d'Assaut. No first-class medal awarded. Second-class medals: Alberto Pla y Rubio, La Guerre; Hubert Denis Etcheverry, Les Nounous—Arlégeoise et Bretonne; Fulop Iaszlo, portraits; Désiré Lucas, Y a Personne?—Interieur de Ferme Bretonne; Émile Boggio, Labor; Louis Lemaire, Pivoines et Rosier

Grimpant; Marcel Rieder, Nocturne; Henry Perrault, Défense héroïque du Col de Banyuls; Pascal Blanchard, portraits; Ernest Gaston Marché, Automne; Edmond Borchard, Un Coup de Collier—Concarneau; Jean Eugène Julien Massé, Les Clos à Vaux-Harlin; Jean Laronze, Le Calme; Charles Hoffbauer, Les Gueux; Antonin Mercié, Colère d'Amour; Maurice Demonts, Les Sorcières; Henry Gaston Darien, Marché aux Oiseaux—Paris; Amédée Buffet, Jésus à Béthanie; Victor Bourgeois, Fin de Rude Journée—Maratchers Picards; Paul Sébilleau, Le Lever de la Lune au Golfe Juan. Third-class medals: Adrien Moreau-Neret, Georges Lavergne, Louis Alexandre Cabié, L. Jean-Pierre, Henri Zo, Léon Eugène Gérôme Dambeza, Henri Thierrot, Jacques Camoreyt, Marius Bartholot, Prosper Piatti, Jules Pagès, Maurice Chabas, Alexandre Chantron, William Édouard Laparra, Theo Henri Mayan, Henry Grosjean, Albert Decamps, Jules Victor Verdier, Mme. Gruyer-Brielman, Paul Eugène Sieffert, Victor Tardieu, Paul Place-Canton, Henry Mourin, Mlle. Hedda Stoffregen, Frederick Melville du Mond, Alfred Renaudin, Edmond de Palézieux, John Noble Barlow.

Section of Sculpture: Medal of honor, Ernest Dubois, Le Pardon (marble group). First-class medals: Aimé Octobre, Le Remords (marble group); Jean Carlus (bronze and granite monument); Jean Boucher, Un Soir (marble group). Second-class medals: Jacques Louis Villeneuve, Jules Grosjean, Roger Bloche, Pierre Laurent, Mlle. Jeanne Itasse, Charles Louis Picaud, Sylvain Kinsburger, Paul Mélin, Paul Breton, Charles Perron, Ferdinand Faivre. Third-class medals: Mme. Marguerite Syamour, Albert Guilloux, Frederic Pierre Tourte, Nicolas Grandmaison, Paul Moreau-Vauthier, Pierre Aubert, Marie Pierre Curillon, Richard E. Brooks, Paul Auban.

Section of Architecture. Medal of honor, Édouard Loviot, Grande Salle des Fêtes et Cérémonies and Exposition de l'Agriculture for the exposition of 1900. First-class medals: Henri Paul Hannotin, Projet de Sanatorium; Félix Boudron, État Actuel et Restauration des Thermes d'Augusta Trevirorum (IV^e Siècle); Alexandre Maistrasse, in collaboration with Marcel Berger, Projet de Salle des Fêtes pour Aubervilliers. Second-class medals: Benjamin François Chaussemiche, Georges Balleyguier, Paul Édouard Henneux, Jean Laborey, Joseph Charles Chausspié. Third-class medals: Gabriel Belestá and Joseph Thillet, Max Sainsaulieu, Fernand Jules Bourdilliat, Louis Charles Guinot.

Section of Engraving and Lithography: Medal of honor, Aristide Lionel le Conteux (etching). First-class medal, William Barbotin (engraving). Second-class medals: Louis Jean Muller (etching), Joseph Sourbier (lithograph), Eugène Juillerat (lithograph). Third-class medals: Julien Deturck, Lucien Pénat, Georges Antonin Lopisgich, Georges Serrier, Pierre Gustave Taverne, Antoine Martin, Mlle. Marguerite Vernaut, Eugène Dété, Victor Dutirtre, Léonard Antoine Jarraud.

The great picture to which the medal of honor was awarded—Tattetgrain's Saint-Quentin pris d'Assaut—exhibits the flight of the inhabitants of the town after its capture in 1557 by the army of Philip II under the Duke of Savoy. Women of all ages, with disheveled hair and terrified faces, accompanied by many children, crowd the streets, hurrying frantically between burning houses, the walls of some of which are falling in on them. It is a striking illustration of war's horrors.

Another great canvas, by Rochegrosse, L'Assassinat de l'Empereur Géta, represents the young emperor hiding despairingly under the robe of

his mother, Julia Domna, who herself is mad with terror at the sight of the daggers of the assassins. The picture is strong and rich in color.

L'Execution des Pazzi, by Barbin, illustrates a mediæval horror, the punishment of the Pazzis for their participation in the conspiracy against the Medicis in Florence in 1478.

Leftwich Dodge contributed a large picture, *The Conquest of Mexico* by Hernando Cortez, which shows all the horrors of the war of the conquest concentrated in the great temple, the staircase of which is strewn with dead and wounded. The composition is strong and very effective.

A masterly shipwreck scene was exhibited by Émile Maillard, with terrific waves sweeping over a vessel whose bulwarks are partly gone. The captain, clinging to the mast, which is about to fall, is giving the order to cast off the boats, already crowded with people, while frightened passengers run on the deck and a priest and some sisters raise their hands to Heaven.

M. Rubé exhibited a powerful picture of a Spanish soldier, who, having lost his sight in the Cuban war, is groping along the wall as he enters the house of his sympathizing mother. *The Funeral of Cesar*, by Piatti, an Italian painter, contains many figures in diverse attitudes and costumes, and shows much conscientious work. *The Triumph of Toulouse*, by Jean Paul Laurens, is a vast composition, which attracted universal attention. *Le Sermon sur le Bord du Lac*, by M. Du Gardier, is an impressive picture, representing Christ preaching to the fishermen, who are listening with the attention of conviction.

One of the curiosities of the exhibition was Louis Béroud's *Salon Carré du Louvre*, showing the fairies that inspire great artists coming to breathe with flowers their most celebrated canvases—Correggio's *Antiope*, Rembrandt's *Old Philosopher*, and Guido's *Rape of Dejanira*. Another singular picture, by M. Piatosky, exhibits Death, who has just come out of a house in which he has left a corpse, crossing a garden full of verdure and flowers, while dogs howl at him.

Paris: Salon of the Société Nationale.—The tenth annual exhibition of the Société Nationale des Beaux Arts comprised 2,854 numbers, of which 1,492 were paintings, 622 designs, drawings, etc., 167 engravings, 147 sculptures, 360 art objects, and 66 architecture.

Among the exhibits, Boutet de Monvel's *Joan of Arc* recognizing the King received much attention. The picture is executed like an old missal, without shadows, and is remarkable in detail, the ladies of the court of Charles VII being dressed in real brocade. The heads are excellently drawn, and the whole composition very skillful.

Homage à Puvis de Chavannes, by Guillaume Dubufe, is a large picture in the style of the great decorative painter, representing him seated in an attitude of meditation, while two nereids approach holding a gold palm over his head. The background is a reproduction of one of Puvis de Chavannes's compositions.

Une Lutte de Femmes, by Jean Veber, is a singular picture, the scene of which is located, perhaps ironically, in Devonshire, England. It represents two stout matrons, completely nude, engaged in a wrestling match on a platform, surrounded by a crowd of women spectators.

A new *Angelus* picture, *L'Heure de l'Angelus*, by Aimé Perret, bears no resemblance to Millet's famous picture, but is the work of a true artist. It represents a young goose girl standing against

a twilight sky, forming an exquisite and poetical statue.

A triptych, entitled *Eden*, by Levy-Dhurmer, represents in the first panel Eve listening to the serpent's bad advice; in the second, she shares with Adam the lessons thus imparted to her; and in the third, regrets all in the midst of a landscape planted with cypress. In another triptych, by Rondel, the middle panel is devoted to Fra Angelico's *Prayer to the Virgin*, while the other two, suggestive of the anachronism of Dagnan-Bouveret in his Christ with his Disciples at Emmaus, are occupied by the faithful in the costumes of to-day.

Conspicuous in the exhibition of sculpture was Augustus St. Gaudens's equestrian statue of Gen. Sherman. The general is firmly seated on a capering horse in a modest and dignified attitude, but with a face that betokens a victor. Rodin's *Eve après sa Faute*, in bronze, is a powerful group, rivaling in grandeur the works of the Italian masters of the sixteenth century. *The Struggle for Life*, by Cordier, representing two lions fighting, is a work exhibiting great anatomical skill and artistic treatment.

London: Royal Academy.—The thirtieth annual winter exhibition, devoted to the works of Rembrandt, is said to have been superior to the Rembrandt Exhibition of 1898 at Amsterdam. Among the exhibits was the large picture of 1633, from Buckingham Palace, *The Shipbuilder and his Wife*, one of the best examples of the painter's early work. Other canvases were: *The Young Gentleman with a Hawk*, *The Lady with a Fan*, *The Lady with a Parrot*, *Belshazzar's Feast*, *A Man in Armor*, *A Man with a Sword*, *Lord Ilchester's Rembrandt in a Yellow Gabardine*, and *Lord Iveagh's famous Rembrandt*, which stands alone in portraiture.

The one hundred and thirty-first summer exhibition, which comprised more than 2,000 exhibits, was fully up to the general standard, having, besides its oil pictures, a goodly representation in sculpture, water colors, and miniatures. Many of the more prominent painters, among them Sir E. J. Poynter, Prof. Herkomer, and Messrs. Orchardson, Yeames, Watts, and Fildes, sent only portraits. Alma-Tadema contributed a large picture, entitled *Thermæ Antonianæ*, a scene in the baths of Caracalla, in which are introduced many gay groups illustrative of the frivolous society under the decaying empire.

The Coasts of the Sirens, by J. Olsson, a successful rendition of classic romance, shows the sirens in a cavern, out of the semi-darkness of which are seen opposite cliffs and ships with orange-tawny sails passing in strong sunlight.

Val Prinsep's *Cinderella* represents a rustic maiden, possessing a good share of natural charms, as becomes a princess in disguise, seated in the chimney corner, holding wood in her apron, as if tending the fire that blazes under the hanging pot. She is clad in a dark-blue dress, making a pleasing contrast with the glowing orange of the pumpkins at her side.

On the Road to Mandalay, by F. Goodall, introduces a Tommy Atkins in khaki, the somber color of which assorts with the pink, white, and purple garments of a Burmese maiden who propitiates him with an offering of champak flowers.

God save the Queen, by John Charlton, shows the portico of St. Paul's, as seen from the south corner, with the royal carriage in the center and her Majesty's bodyguard of Indian cavalry, in their uniforms of blue and red and their head gear of cloth of gold, in the foreground.

Another brilliant representation of the same

event is Mr. Gow's *St. Paul's: The Queen's Diamond Jubilee*, a commission for the Guildhall Gallery. It represents the west front of *St. Paul's*, and the figures are larger than those of Mr. Charlton.

Perseus and Andromeda, by A. T. Nowell, exhibits a nude *Andromeda* escaping from the folds of the dragon, which *Perseus* is spearing. Among other noteworthy pictures are: *Love the Conqueror*, by Byam Shaw; *My Lady's Garden*, by J. Young Hunter; *O Mistress mine, where are you Roaming?* by Edwin Abbey; *The Diver*, by Henry Tuke; and *Laus Deo*, by Solomon J. Solomon.

Among the best pictures of the year were J. S. Sargent's portraits of Mrs. C. Hunter, Miss Octavia Hill, Miss J. Evans, and Lady Faudel-Phillips.

London: New Gallery.—The winter exhibition was devoted to the works of the late Sir Edward Burne-Jones. It is doubtful if so complete an exposition of his art will ever be gathered together again, for very few of the greater productions of the different stages of his career were absent from the collection. Among many other notable pictures, we may mention *The Merciful Knight*, *Danaë's Tower*, *Pan and Psyche*, *Love and the Pilgrim*, *The Prioress's Tale*, *The Depths of the Sea*, *Merlin and Vivien*, *Laus Veneris*, *King Cophetua* and the *Beggar Maid*, *The Mirror of Venus*, *The Hesperides*, *The Golden Stairs*, *The Wheel of Fortune*, *The Annunciation*, *The Wine of Circe*, the unfinished *Triumph of Love*, and many portraits, sketches, and designs.

London: Guildhall Exhibition.—The corporation of London exhibited this year a splendid collection of the works of England's greatest landscape painter, J. M. W. Turner. The oil painting ranged over a period of fifty years, from 1799 to 1849, the earliest example being *Kilgarren Castle*. Among others were: *Calais Pier*, *The Victory bringing Home the Body of Nelson after Trafalgar*, *The Wreck of the Minotaur*, *Mercury and Hersé*, *The Falls of Terni*, *Apollo and the Python*, *Dido building Carthage*, *Snowdon*, *The Campo Santo*, *Venice*, *The Bridge of Narni*, and *The Marriage of the Adriatic*, the last named having been for many years in the possession of Mr. Ruskin. The exhibition was one of the notable ones of the season.

London: Miscellaneous.—In the picture sales of 1899 28 canvases were sold for 1,400 guineas and over, while in the sales of 1898 15 only exceeded that amount.

The Sir John Fowler collection realized for 91 lots over £65,000, an average of over £700 per lot. The London Art Journal makes an interesting comparison between this and some previous notable sales, in which the total sums realized were as follow: Ruston sale (1898), £45,995; Pender (1897), £75,916; Goldsmid (1896), £67,342; James Price (1895), £87,144; Adrian Hope (1894), £49,884; Dudley (1892), £90,564; Murieta (1892), £50,592; David Price (1892), £69,577; Wells (1890), £78,312; Bolckow (1888), £66,567; Becket-Denison (1885), £71,050.

Among the highest prices obtained at the Fowler sale were: *Hobbema*, a noble landscape (41 by 50 inches), 9,100 guineas. It had been for four generations in the family of Richard Ford, author of the *Guide to Spain*, from which it was purchased in 1871 by Sir John Fowler for £3,100. *Turner*, *View of Venice*, 8,200 guineas; *View of Oxford from the Abingdon Road*, 4,000 guineas; *Lake of Nemi* (water color), 3,000 guineas; *Temple of Jupiter* (water color), 1,700 guineas; *Edin-*

burgh (water color), 1,000 guineas; *Lucerne* (water color, painted for Ruskin), 1,300 guineas. *Landseer*, *Ptarmigan Hill*, 2,000 guineas. *Phillip*, *A Chat around the Brasiro*, 2,700 guineas. *W. Muller*, *Slave Market, Cairo*, 1,300 guineas; *View of Gillingham*, 1,500 guineas. *W. Collins*, *Sunday Morning*, 1,380 guineas. *Greuze*, *La Petite Mathématicienne*, 1,680 guineas. *Meissonier*, *The Smoker*, 1,280 guineas. *Rosa Bonheur*, *Highland Cattle*, 1,450 guineas. *Sir John Fowler*, it will be remembered, was the engineer of the great *Forth Bridge*. His collection had been the work of thirty years.

Three important works of Rubens from the famous Lee Court collection were sold on May 13: *The Holy Family*, 8,300 guineas; *The Conversion of Saul*, 1,950 guineas; *The Woman taken in Adultery*, 1,950 guineas. On the same day 14 of Lord Methuen's pictures were sold, including *Lorenzo di Credi*, *Virgin Enthroned*, 680 guineas; *Gentile da Fabriano*, *Coronation of the Virgin*, 560 guineas; and *Andrea del Sarto*, *The Painter's Portrait*, 890 guineas. Among miscellaneous properties, two portraits by Franz Hals brought respectively 3,000 and 2,000 guineas, for which the late owner had paid £100 apiece. *Romney's* Mrs. Francis Newbery fetched 1,650 guineas; *J. Hoppner's* *Harriet Westbrook*, wife of Shelley, 1,380 guineas; and a portrait of a young girl, by *Raeburn*, 1,900 guineas.

In a composite sale in June a portrait of Sir Walter Scott, by Sir J. Watson Graham, brought 1,500 guineas; *Reynolds*, portrait of John Hely Hutchinson, 1,250 guineas; Sir H. Raeburn, Mrs. F. Robertson Reid, 1,320 guineas; *Murillo*, *Christ bearing the Cross*, 700 guineas; *G. Morland*, *Farm Scene*, 850 guineas; and *Hobbema*, *Woody Landscape*, 620 guineas.

The sale of the collection of R. Paterson Pattison included a few interesting works: *G. Romney*, *Viscountess Melville*, 900 guineas, and *Lady Hamilton*, 910 guineas; *J. Maris*, *Town on Dutch River*, 500 guineas, and *Dutch Fishing Boat Ashore*, 1,350 guineas.

At a sale by Messrs. Agnew in July a portrait of a young lady, a replica of an early Lawrence, attributed by error to Reynolds, fetched 2,800 guineas. *La Musette*, by Watteau, brought 1,380 guineas, and *Strolling Players*, by Landseer, 350 guineas.

The committee of the Burne-Jones Memorial fund, charged with the selection of one of his pictures for the National Gallery, have fixed upon *King Cophetua* and the *Beggar Maid*, for which £6,500 is asked. This choice, which many think does not represent the artist at his best, has met with considerable criticism.

Antwerp.—The tercentenary of Van Dyck was commemorated by an exhibition of his works, by a grand civic display, and by other celebrations. The collection of pictures, gathered from the galleries and churches of his own country and from many foreign galleries, gave the best opportunity possible of studying the several periods of his art. Many examples were sent from England, the Queen contributing three from Windsor Castle—the head of Charles I in three positions, his three children, and the portrait group *Killigrew and Carew*. The Dukes of Devonshire, Portland, Westminster, and Norfolk, Lords Spencer, Sackville, and Darnley, and other English owners were represented by contributions from their galleries, and Italy, France, Germany, Austria, and Russia lent important examples of the great master.

An interesting feature of the celebration was a magnificent procession organized by the artists of Antwerp, representing the progress of art

through the ages. Preceded by the images of the traditional patrons of Antwerp, the giant Antigonous and his wife, group after group typical of all nations and ages, marched through the Grande Place before the Hôtel de Ville, where were gathered the civil and military authorities and the art representatives and guests from all the academies of Europe. Egyptians and Assyrians, Greeks and Romans, were followed by the various renaissances, the crowning feature being Rubens and his School and the Homage to Sir Anthony Van Dyck. Besides this grand display, the opening ceremonies were simple but full of dignity.

Dresden.—The National Fine Arts Exhibition (April 20 to Sept. 17) was very successful. Of its 1,500 entries, 550 were paintings, 350 sculptures, and 600 drawings and engravings.

Madrid.—The third centenary of the birth of Velasquez was celebrated in June by commemorative *fêtes*, in which all the societies of art and science in Spain took part, and in an exhibition of the painter's works. For this purpose all his pictures in the various public galleries, in the churches, and in private collections were assembled in the National Museum. A statue of Velasquez was unveiled in the Prado.

Venice.—The third International Art Exhibition of specimens of contemporary art from all over the world was a pronounced success, and attracted many thousand visitors. It owed its origin to a former mayor of Venice, Signor Selvatico, whose object is to stimulate the Venetians to make their city once more a home of art.

New York: National Academy of Design.

—The officers for 1899-1900 are as follow: President, Frederick Dielman; Vice-President, J. G. Brown; Corresponding Secretary, Harry W. Watrous; Recording Secretary, George H. Smillie; Treasurer, Lockwood De Forest; Council, B. West Clinedinst, H. Bolton Jones, J. Carroll Beckwith, C. D. Weldon, C. Y. Turner, and H. Siddons Mowbray. Academicians elected: Herbert Adams, George Inness, Jr., and Douglas Volk; associates, George H. Bogert, Louis Paul Dessar, Leonard Ochtman, Edward H. Potthast, F. K. M. Rehn, and Robert Vonnoh. The Academy has 98 academicians and 58 associates.

The seventy-fourth annual exhibition (April 3 to May 13) contained 344 numbers, of which 329 were pictures. The prizes of the year were awarded as follow: The Thomas B. Clarke prize (\$300), for the best American figure composition, to Edward Potthast for his *Village Carpenter*; the first Julius Hallgarten prize (\$300) to George H. Bogert for his *September Evening*; the second Hallgarten prize (\$200) to Louis Paul Dessar for his *Portrait, Mrs. Ruthrauff*; the third Hallgarten prize (\$100) to Carl J. Blenner for his *The Letter*; and the Norman W. Dodge prize (\$300), for the best picture painted by a woman, to Matilda Browne, for her *The Last Load*. Among the best of the exhibits were *Childe Hassam's The Sea*, *Horatio Walker's Oxen Drinking*, *Cecilia Beaux's double portrait of Mr. and Mrs. Anson Phelps Stokes*, *John F. Weir's portrait of Dean Wayland*, of the Yale Law School, *Howard Russell Butler's Wave*, *Henry Mosler's The Coquette*, and *George Inness, Jr.'s, The Last Shadow of the Cross*.

A sentimental interest was attached to this exhibition, as it was the last annual display in the Venetian building at Fourth Avenue and Twenty-third Street, where the Academy has been housed for the past twenty-five years. The next exhibition will be held in the American Fine Arts Building, in Fifty-seventh Street; after that the Academy will occupy temporary quarters, now building on its new site on Morningside Heights,

until the erection of the new National Academy of Design.

New York: National Arts Club.—The organization of this new association, which has its first home at 37 West Thirty-fourth Street, has been perfected as follows: President, George B. Post; Treasurer, Spencer Trask; Secretary and Managing Director, Charles De Kay; chairman of House Committee, Samuel T. Shaw; chairman of Exhibition Committee, Charles R. Lamb; chairman of Library Committee, Richard Watson Gilder. A fire-proof gallery for exhibitions has been constructed, in connection with which are the general reading and assembly rooms, for the use of both women and men members. The second floor is devoted to women alone, and the third floor to the exclusive use of men. The club gave its formal opening in October.

New York: National Sculpture Society.

The Dewey Triumphal Arch, erected on Fifth Avenue at Madison Square as a part of the grand reception given by the city to Admiral George Dewey on Sept. 30, was planned and erected by the society, the members of which gave their services gratuitously to its construction and decoration. The architect of the scheme was Charles R. Lamb. The arch, with a single archway north and south and a transverse smaller archway east and west, was approached on each *façade* through an avenue of Corinthian columns in pairs, each pair fronted by a figure of Victory, the work of Herbert Adams. At the entrance of these avenues the columns were in threes, each trio faced with sculptured groups, those on the north symbolizing respectively the East Indies, by Charles A. Lopez, and the West Indies, by Isidore Konti; those on the south, *The Army*, by F. W. Ruckstuhl, and *The Navy*, by George E. Bissell. Each *façade* of the arch was ornamented with four Corinthian columns supporting an entablature, above which was an attic adorned with statues of naval heroes, the whole surmounted by an allegorical group, *Naval Victory*, by J. Q. A. Ward, representing Victory standing in a floating chariot drawn by Tritons. Between the columns, on each front, were symbolical sculptured groups: *To Arms*, by Philip Martiny; *The Combat*, by Karl Bitter; *Peace*, by Daniel C. French; and *The Triumphal Return*, by Charles H. Niehaus. The statues on the attic, surmounting each column, were: *Commodore Decatur*, by George T. Brewster; *Commodore MacDonough*, by Thomas S. Clarke; *Commodore Paul Jones*, by E. C. Potter; *Commodore Hull*, by H. K. Bush-Brown; *Commodore Perry*, by J. S. Hartley; *Lieut. Cushing*, by H. A. Lukeman; and *Admiral Farragut*, by W. O. Partridge. In the spandrels of the arch were symbolic sculptures—on one face *The Atlantic and The Pacific*, by R. H. Perry, and on the other *The North River and The East River*, by Isidore Konti. On the east and west faces of the arch were bas-reliefs, *The Progress of Civilization*, by Johannes Gellert, and *Protection of Our Country*, by William Couper; and medallions showing the heads of naval heroes: *Capt. Lawrence*, by Henry Baerer; *Commodore Preble*, by C. F. Hamann; *Admiral Foote* and *Admiral Worden*, by Frederick Moynihan; *Commodore Bainbridge*, by Ralph Goddard; *Admiral Dahlgren*, by Caspar Buberl; and *Commodore Barry* and *Admiral Davis*, by F. W. Kaldenberg.

The arch and its approaches, constructed of staff on a wooden superstructure, was completed within six weeks. It proved so successful a part of the celebration that a proposition for its perpetuation in marble and bronze has met with almost universal approval.

New York: Society of American Artists.—The twenty-first annual exhibition was held in the Fine Arts Society Building from March 24 to April 29.

The Shaw fund of \$1,500, awarded annually for the purchase of a figure composition in oil by an American artist, was given to Douglas Volk for his *Woodland Maid*. The Webb prize of \$300, for the best landscape in the exhibition painted by an American artist under forty years of age, was awarded to W. L. Lathrop for his *Clouds and Hills*.

The exhibition comprised 354 numbers, including a few miniatures, bronze medallions, and sculptures. Among the noteworthy exhibits were portraits and figure pieces by John W. Alexander, Albert Herter, Kenneth Frazier, Miss Lydia Field Emmet, Miss Louise L. Huestis, Carroll Beckwith, A. H. Thayer, Francis Lathrop, Will H. Low, and Kenyon Cox. The exhibition was, as usual, rich in landscapes, among the best of which were Bolton Jones's *Afternoon by the River*, D. W. Tryon's *Early Spring in New England*, Walter Nettleton's *Breaking up of Winter*—Stockbridge, and several by Birge Harrison. The place of honor was given to Dagnan-Bouveret's great picture, *Christ with his Disciples at Emmaus*, the gift of Mr. Henry C. Frick to the Carnegie Institute of Pittsburgh, and loaned by the institute to the Society of American Artists for the exhibition. This picture, which was briefly noticed last year, is worthy of further mention on account of the curious whim of the artist, who, in imitation of the practice of early Italian and German painters, has included in the group, beside the two disciples, himself, his wife, and his son, all in modern Parisian costume. Dagnan-Bouveret himself is standing—for "no man kneels," he is reported to have said—while his wife and boy are on their knees in devotion. Although this absurd anachronism renders the picture in a measure incongruous to any but a French eye, its broad treatment and masterly execution, especially in the management of the light, make it one of the most noteworthy pictures of modern times.

New York: Society of Landscape Painters.—The first annual exhibition of this new association, held at the American Art Galleries, March 24 to April 5, comprised 184 numbers, of which 61 were water colors. The members of the society are George H. Bogert, Walter Clark, William A. Coffin, Bruce Crane, Charles H. Davis, R. Swain Gifford, Frederick Kost, J. Francis Murphy, Robert C. Minor, Leonard Ochtman, Walter Palmer, and Carleton Wiggins.

New York: Ten American Painters.—This association, made up of disaffected members of the Society of American Artists, held its second annual exhibition (April 4 to 15) at the Durand-Ruel Galleries. Twenty-three pictures were contributed by nine of the members.

New York: Miscellaneous.—The principal art sale of the season was that of the pictures and art objects forming the collection of Thomas B. Clarke, which were disposed of in February at the American Art Galleries. The amount realized by the four nights' sale of paintings (372 works by American artists) was \$234,495, and the total of the sale, including bronzes and other art objects, was \$306,943. Among the best prices obtained for pictures were: George Inness, *Gray Lowery Day*, \$10,150; *Clouded Sun*, \$6,100; *White Mountain Valley*, \$3,100; *Nine o'Clock*, \$3,100; *Winter Evening*, \$3,050; *Wood Gatherers*, \$5,600; *Sunny Autumn Day*, \$4,100; *Twilight*, \$1,600; *September Afternoon*, \$1,500; *New England Valley*, \$2,050; *Harvest Moon*, \$2,700; *Path through*

the *Florida Pines*, \$1,650; *Sunset in the Old Orchard*, \$1,080; *Afternoon Glow*—Pompton, N. J., \$1,650; *End of the Rain*, \$1,550; *Autumn Silence*, \$1,325; *The Mill Pond*, \$1,400. Homer Martin, *Adirondack Scenery*, \$5,500; *Head Waters of the Hudson*, \$1,500. Winslow Homer, *Coast in Winter*, \$2,625; *The Lookout—All's Well*, \$3,200; *The West Wind*, \$1,625; *Maine Coast*, \$4,400; *The Life Line*, \$4,500; *The Gale*, \$1,625. A. P. Ryder, *Temple of the Mind*, \$2,250. A. H. Wyant, *Mountain and Lake*, \$1,200; *Early Morning*, \$1,800. William M. Chase, *A Coquette*, \$1,500. D. W. Tryon, *The End of Day*, \$2,050; *A Dewy Night—Moonrise*, \$1,000. Charles H. Davis, *The Deepening Shadows*, \$1,100. Charles Melville Dewey, *Edge of the Forest*, \$1,050. Louis Moeller, *Puzzled*, \$1,525. George Fuller, *A Romany Girl*, \$4,100. William L. Picknell, *The Road to Concarneau*, \$1,100.

The Appellate Court Building, on Madison Avenue and Twenty-fifth Street, New York, which was thrown open to public inspection in December, is worthy of special notice as being one of the few public buildings in the United States produced by the co-operation of the arts of architecture, sculpture, and painting. Mr. James Brown Lord, the architect, to whom is due the effective collaboration of the various artists whom he called to his aid, has produced one of the most artistic and impressive structures in the country. The material is of pure white marble, with the substructure and steps of granite. The design is classic, with a portico in the middle of the southern *façade* composed of six Corinthian columns, supporting a pediment, to be filled by a composition by Charles H. Niehaus representing the *Triumph of Law over Anarchy*. Two seated colossal figures, *Force* and *Wisdom*, are to occupy bases on each side of the entrance steps, and allegorical groups—*Justice*, by Daniel C. French, and *Peace*, by Karl Bitter—are to fill the east and west pediments. A series of figures representing eminent jurists of the past, by J. S. Hartley, J. T. Donoghue, Herbert Adams, H. K. Bush-Brown, A. Lukeman, George E. Bissell, Charles A. Lopez, Philip Martiny, E. C. Potter, and William Cowper, are to occupy the upper balustrade and fill the sky line.

The interior, rich with marble, onyx, and carved oak paneling, has been decorated by some of our best mural painters, including H. Siddons Mowbray, Robert Reid, Willard Metcalf, C. Y. Turner, H. O. Walker, Edward Simmons, Edwin H. Blashfield, George W. Maynard, Kenyon Cox, and Joseph W. Lauber. The most important panels are those on the east wall of the courtroom, opposite the dais of the justices. The center one, by Walker, represents *Wisdom*, attended on one side by *Learning*, *Experience*, *Humility*, and *Love*, and on the other by *Faith*, *Patience*, *Doubt*, and *Inspiration*. The right panel, by Blashfield, represents the *Power of the Law*. *Law*, who draws her sword in behalf of *Appeal*, is attended by black-gowned magistrates and by a Roman magistrate representing *Civil Law*, an Anglo-Saxon, *Common Law*, and a bishop, *Canon Law*. Above, two flying female figures are about to crown *Law*. The left panel, by Simmons, represents the *Justice of the Law*. *Justice* occupies the center, with *Peace* recoiling from *Brute Force*, withheld by *Fear*, on the left, and *Plenty* assisting the *Needy*, with *Labor* behind her, on the right.

Of the other decorations, a frieze by Kenyon Cox on the west wall represents the *Reign of Law*, and many small panels between the windows and pilasters, by Lauber, treat numerous allegorical subjects. The main hall is decorated

by beautiful and appropriate friezes and panels by Mowbray, Metcalf, Reid, and Turner; and the library, the robing rooms, and other apartments are furnished in a style harmonious with the general design. Regarded as a whole, the building is one of the most successful productions of American art, and reflects infinite credit on its designer.

Boston: Museum of Fine Arts.—The twenty-third annual report gives the officers for 1899: President, William Endicott; Treasurer, Charles Lowell; Director, Charles G. Loring; Executive Committee, William Endicott, Francis Bartlett, Samuel D. Warren, Francis Blake, Charles G. Loring; Committee on the Museum, J. Elliot Cabot, W. P. P. Longfellow, Edward W. Hooper, William Sturgis Bigelow, Arthur Astor Carey, Charles A. Cummings, Charles G. Loring; Committee on the Library, Charles Eliot Norton, W. P. P. Longfellow. The total number of visitors in the past year was 202,205.

Among the bequests are \$730,000 from Hon. Henry L. Pierce, given without restriction, and \$146,500 from Mrs. Julia B. H. James, the income to be used for the purchase of works of art. The museum has been largely enriched, and has so outgrown its surroundings that measures are now taking for the procuring of a larger and more eligible site. The museum differs from the Metropolitan Museum of New York in receiving no aid from city or State.

Philadelphia: Pennsylvania Academy of Fine Arts.—The sixty-eighth annual exhibition, which opened on Jan. 14, was more than usually interesting. Most of the prominent New York artists contributed pictures, and more than 20 works were sent from Boston.

Pittsburg: Carnegie Institute.—The fourth annual celebration of Founder's Day was held in the Carnegie Music Hall on Nov. 2. The principal speaker was President Arthur Twining Hadley, of Yale University, who delivered an able discourse on Modern Changes in Educational Ideas.

The awards made by the International Jury of Award were as follow: Medal of the first class (gold), carrying with it an award of \$1,500, to Cecilia Beaux, Philadelphia, for her painting entitled *Mother and Daughter*. Medal of the second class (silver), with an award of \$1,000, to Frank M. Benson, of Salem, Mass., for his painting *The Sisters*. Medal of the third class (bronze), with an award of \$500, to Andrée Dauchez, Paris, for his painting *The Boats*. Honorable mention, to Lucien Simon, Paris, for his painting entitled *Portraits*, and to J. H. Twachtman, Greenwich, Conn., for his painting *The Waterfall*.

The exhibition, comprising 258 pictures, was one of the best displays ever held in America. The most striking new works by American artists, besides the prize pictures, were Childe Hassam's *Improvisation*, George De Forest Brush's *A Family Group*, Edward C. Tarbell's *My Family*, William M. Chase's portrait of Frank Wadsworth, Winslow Homer's *High Seas and Summer Night*, Carl Melchor's *Young Mother*, and Frederick W. Freer's *Moonrise*. Among foreign canvases were Thaulow's *Old Factory in Norway*, two marines by Mesdag, Charles Collet's *The Three Holy Kings*, and some good pictures from Italy and Scotland.

Miscellaneous.—A noteworthy recognition of American art is the election to membership in the Accademia di San Luca of Rome of Daniel Chester French, the sculptor. The Accademia di San Luca, which was founded A. D. 800, has 41 members, 20 of whom are foreigners. Its rooms are in the Colonna Palace, near the Quirinal. Mr.

French is the first American artist to receive this honor.

The international contest for the Phœbe Hearst architectural plans for the buildings of the University of California has been decided in favor of E. Benard, of Paris. Ninety-eight architects contributed designs, which were submitted to a jury in Antwerp. Eleven plans survived a third examination, and these were sent to San Francisco for final decision, with the result that Benard was awarded the first prize of \$10,000. The second prize, \$4,000, was given to Howells, Stokes & Hornbostel, of New York; the third, \$3,000, to Despardelles of Stephen Codman, of Boston; the fourth, \$2,000, to Howard & Cauldwell, of New York; and the fifth, \$1,000, to Lord, Hewlett & Hull, of New York. While M. Benard's plan involves the removal of the present buildings and the virtual creation of a new city, he has preserved the natural contour of the ground. The style of the architecture is modern, but leans to the Roman Ionic order.

A bronze bust of Edgar Allan Poe, by Julian Zolnay, of New York, was unveiled at the University of Virginia, at Charlottesville, Va., on Oct. 7. It occupies an alcove in the rotunda of the new library building. The bust, which represents the poet in a reflective mood, with his head slightly bent, bears a facsimile of the poet's signature and the inscription: "Edgar Allan Poe, 1809-1849. Student of the University of Virginia, February to December, 1826." The principal address was made by Hamilton W. Mabie. Letters were received from prominent literary men all over the United States.

FLORIDA, a Southern State, admitted to the Union March 3, 1845; area, 58,680 square miles. The population, according to each decennial census since admission, was 87,445 in 1850; 140,424 in 1860; 187,748 in 1870; 269,493 in 1880; and 391,422 in 1890. By the State census of 1895 it was 464,639. Capital, Tallahassee.

Government.—The following were the State officers during the year: Governor, William D. Bloxham; Secretary of State, John L. Crawford; Treasurer, James B. Whitfield; Comptroller, W. H. Reynolds; Attorney-General, William B. Lamar; Superintendent of Public Instruction, William N. Sheats; Adjutant General, Patrick Houston; Commissioner of Agriculture, Lucius B. Wombwell; State Chemist, W. A. Rawls; State Examiner, W. V. Knott; Railroad Commissioners, R. H. M. Davidson, H. E. Day, J. M. Bryan; Board of Health, W. B. Henderson, D. T. Gerow, H. L. Simpson; Chief Justice of the Supreme Court, R. F. Taylor; Associate Justices, Milton H. Mabry and Francis B. Carter.

Finances.—The report of Treasurer shows a balance, Jan. 1, 1899, of \$317,372.06. The balance in the treasury, Jan. 1, 1900, to the credit of the several State funds was \$318,416.40. The deficit of the former Treasurer, C. B. Collins, \$52,591.97, was reduced \$26,225.38 through suits instituted by the State against him and his bondsmen. Payment on a loan of \$200,000 borrowed by the State in 1891 was made, reducing the amount to \$100,000, and arrangements were made for payment of the entire amount in January, 1900. The total bonded indebtedness of the State is \$322,500. The aggregate assessed valuation of property in 1898 was \$93,900,823.75. The total tax levy for 1899 was 4½ mills; general revenue tax, 3 mills; Board of Health tax, ¼ mill; pension tax, ¼ mill; school tax, 1 mill. The Treasurer in his report says the general revenue tax for 1900 can be reduced to 2½ mills because of the final payment of the debt of \$200,000.

Insurance.—The fire insurance companies in Florida number 54; life insurance companies, 11; miscellaneous (accident, plate-glass, tornado, surety, etc.), 17. The aggregate premium receipts in the State for 1898 were as follow: Fire, \$622,669.58; life, \$603,716.77; miscellaneous, \$54,141.33; total, \$1,280,517.68. The aggregate losses paid in Florida in 1898 were: Fire, \$312,388.64; life, \$213,361.68; miscellaneous, \$19,118.11; total, \$554,868.48. The net outgo for insurance during the year was: Fire, \$310,270.94; life, \$390,355.09; miscellaneous, \$35,023.22; total, \$735,649.25.

Charities.—The report of the State Insane Asylum for 1898 shows 491 patients at the close of the year, 48 more than during 1897, as follow: White males, 147; white females, 138; colored males, 106; colored females, 100. The per capita expense during the year was \$76.33.

Prisons.—The number of convicts in State camps Jan. 1, 1899, was 717, an increase of 30 over 1898. In the preceding year 344 were received and 237 discharged, 15 were pardoned, 40 died, 21 escaped, and 2 were committed to insane asylums. The convicts sentenced during 1898 were 50 white males, 2 white females, 269 negro males, 13 negro females. The Reformatory, at Marianna, for offenders under sixteen years of age was completed the last of the year.

Militia.—The report of the Adjutant General for 1899 shows the total of the active military force of Florida to be 1,254, of whom 99 were officers and 1,155 noncommissioned officers and enlisted soldiers, a gain of 75 enlisted men during the year. The naval militia had an aggregate of 218 men, 5 of whom were commissioned officers.

Communications.—The railroad mileage for 1899 is reported at 3,370.73, which is assessed at \$18,759,155.44. A passenger tariff rate of 3 cents a mile on some roads and 4 cents a mile on other roads, to go into effect July 18, 1898, was made by the Railroad Commissioners. The railroads involved contested this ruling in the courts of the State in 1898 and 1899. A compromise was effected of 3 cents a mile for round-trip tickets and 4 cents a mile for straight tickets.

The State of Florida in 1899 is reported to have 3,101.44 miles of telegraph lines. Their value is assessed at \$252,726.15.

Products.—According to the last report of the Commissioner of Agriculture, Florida has under cultivation 882,062 acres. The aggregate value of farm products was \$17,905,060; value of mine, forest, and miscellaneous products, \$31,059,015; total, \$48,965,075.

Periodicals.—The following list of periodical publications in the State is believed to be accurate: Dailies, 18; triweekly, 1; semiweeklies, 6; weeklies, 108; monthlies, 10; total, 143.

Indians.—The Seminole Indians in Florida number about 600. During the year a movement was begun to provide them with land in severalty in the Everglades. The State, in making drainage contracts, set aside for their use 10,000 acres subject to legislative action.

Homestead Land.—The State in 1898 held 1,592,793 acres open to homestead entry. Suwannee County contains the fewest, 768, and Walton County the greatest, 206,260.

Birth and Death Rate.—The birth rate of Florida for five years ending with 1898 per 1,000 of population was 14.63; the death rate was 8.05.

Legislative Session.—The biennial session of the Legislature convened April 1 and closed May 31. The Legislature comprises 32 Senators and 68 Representatives—all Democrats.

In his message the Governor called attention

to the excellent financial condition of the State, and said: "Since the adjournment of the last Legislature \$100,000 of the principal of the State's debt has been paid; \$75,000 of this amount was paid in 1898 and \$25,000 in 1899. The State tax proper has also been reduced to 3 mills.

"One of the most serious financial problems that confront the Legislature is the payment of pensions under the law enacted by the last Legislature. Prior to that period all pension laws were passed for the benefit of those who enlisted in the military or naval service of the Confederate States or of this State, who lost limbs or who were permanently injured by wounds or diseases contracted while in said service. The last Legislature departed from this principle, and gave the benefit of the pension laws not only to those who enlisted and are permanently injured from wounds or disease contracted during the service, but since. The same change was made as to the widows of pensioners." The Governor called attention to his recommendation to the former Legislature that the "Constitution should be so amended as to have a circuit judge appointed for the State, who could be directed to hold court in any county where a necessity existed, whether that necessity was produced by unusual crime or by disability of the judge of the circuit."

The Legislature was asked to consider a remedy for the failure of the Constitution to provide a successor to the Governor in case of a vacancy. The Constitution provides for the succession of the President of the Senate, and, failing him, the Speaker of the House. Owing to the death of the President of the Senate and the expiration of the term of the Speaker of the House, the Governor had no successor, in event of a vacancy, from Nov. 8, 1898, the date of the general election, to the meeting of the Legislature, April 1, 1899.

More than 200 bills were passed by the Legislature. The more important of these were:

To increase revenue by taxing railroad spurs.

Extending the pension law to a larger class.

Protecting fire insurance companies paying taxes from outside companies.

Compelling fire insurance companies to pay face value on policies drawn.

Providing for a tax for maintenance of the State Board of Health.

Giving enlarged judicial powers to the State Railroad Commissioners under a constitutional amendment previously passed. The general provisions of this act have been confirmed by the Supreme Court of Florida.

For suppression of the sale of railroad tickets by persons known as "scalpers."

Compelling the fencing in of railroad tracks.

Authorizing the Governor to appoint a committee of three to investigate the convict system of the State and to report to the next Legislature the best method of working convicts. Florida has no penitentiary, and its convicts are hired out to the highest bidder. They are kept in stockaded camps guarded by armed men.

For the protection of children. Up to this time no redress, except for personal assault, could be had by law for children.

To recover damages for death of minors.

For protection of shippers of merchandise.

For preservation of game.

A joint resolution relative to election of Senators of the United States by direct vote was passed.

A concurrent resolution and memorial to Congress relative to the Interstate Commerce Commission law was passed.

A memorial to Congress asking for additional powers to be conferred on the Interstate Commerce Commission was passed.

FRANCE, a republic in western Europe, proclaimed on Sept. 4, 1870, when the Emperor Napoleon III was deposed. The Constitution of Feb. 24, 1875, vests the legislative power in the Chamber of Deputies and the Senate, forming together the National Assembly, and the executive power in the President of the republic and the Council of Ministers. The National Assembly, united in Congress, elects the President for the term of seven years, and has authority to revise the Constitution, which has been modified by the additional laws of Aug. 2 and Nov. 30, 1875, Dec. 9, 1884, and June 16, 1885. The Senate is composed of 300 members, elected in the departments for nine years, one third retiring every three years, by the Senators, Deputies, members of the departmental and district councils, and delegates of the communal councils. There were 75 Senators elected by the National Assembly or by the Senate for life, but at the death of one of these the vacancy is filled by the election of a Senator for nine years by one of the departments determined by lot. Of the life Senators there were 26 survivors in October, 1897. The Chamber of Deputies is composed of 584 members, one to each *arrondissement* having less than 100,000 inhabitants, or to each electoral district of the more populous *arrondissements*. The ministers are responsible to the Chamber, and in case of their defeat the President selects a new premier minister representing the victorious party or combination, who in consultation with the President selects his colleagues. The President can dissolve the Chamber with the consent of the Senate.

The President of the republic at the beginning of 1899 was Félix Faure, elected on Jan. 17, 1895, as successor of Sadi-Carnot. The ministry formed on Oct. 30, 1898, was composed of the following members: President of the Council and Minister of the Interior, Charles Dupuy; Minister of Foreign Affairs, Théophile Delcassé; Minister of War, Charles de Freycinet; Minister of Marine, Édouard Simon Lockroy; Minister of Finance, Paul Peytral; Minister of Public Instruction and Worship, Georges Leygues; Minister of Justice, M. Lebreton; Minister of Commerce, Industry, and Posts and Telegraphs, Paul Delombre; Minister of Public Works, Camille Krantz; Minister of Agriculture, Albert Viger; Minister of the Colonies, Georges Guillaumin.

Area and Population.—The area of France is 204,092 square miles. The population present on March 29, 1896, was 38,517,975, comprising 37,490,484 French and 1,027,491 foreigners. The enumeration compared with that of 1891 showed a total increase of 175,027, which was confined to 24 departments, while in 63 there was a decrease of population. The number of marriages in 1897 was 291,462, compared with 290,171 in 1896; of births, 859,107, compared with 865,586; of deaths, 751,019, compared with 771,886; excess of births, 108,088, compared with 93,700. In 1895 deaths exceeded births by 17,813, as the birth rate was abnormally low. In 1896 the birth rate was 22.7 per mille and the death rate 20.2; in 1897 the birth rate was 22.4 and the death rate 19.9. The number of divorces in 1897 was 7,460, compared with 7,051 in 1896 and 6,743 in 1894.

Finances.—The budget estimates for 1899 make the total revenue 3,474,937,000 francs, of which 3,420,684,629 francs are the general budget of France, including exceptional receipts of 14,000,000 francs and 62,617,931 francs receipts *d'ordre*, and 54,152,371 francs are the revenue of

Algeria. Of the revenue of France 472,181,557 francs come from direct taxes, 36,363,527 francs from taxes assimilated to direct taxes, 2,025,176,450 francs from indirect taxes, 692,903,100 francs from Government monopolies and manufactories, 60,865,370 francs from state domains and forests, and 56,576,694 francs from various sources. Of the indirect taxes registration yields 526,904,000 francs, the stamp duty 179,219,400 francs, the tax on income from personal property 72,078,100 francs, the tax on stock-exchange operations 5,526,000 francs, import duties 433,272,050 francs, the duty on sugar 186,494,000 francs, and other indirect contributions 621,682,000 francs. The revenue from Government monopolies and factories is made up of 401,563,000 francs from tobacco, 234,099,400 francs from the post office, telegraphs, and telephones, 41,305,000 francs from gunpowder and matches, and 15,935,700 francs from railroads, mint, and other establishments.

The total expenditure for France was estimated for 1899 at 3,400,724,730 francs and Algerian expenditure at 73,370,449 francs, making the total budget 3,474,095,179 francs. Of the expenditure for France 1,248,264,165 francs are for the public debt, 13,368,560 francs for the President, Senate, and Chamber of Deputies, 20,149,410 francs for the Ministry of Finance, 35,074,033 francs for the Ministry of Justice, 16,066,800 francs for the Ministry of Foreign Affairs, 77,973,912 francs for the Ministry of the Interior, 647,998,109 francs for the Ministry of War, 304,078,400 francs for the Ministry of Marine, 217,405,043 francs for the Ministry of Public Instruction and Fine Arts, 43,065,553 francs for the Ministry of Public Worship, 218,006,188 francs for the Ministry of Commerce, Industry, and Posts and Telegraphs, 85,957,600 francs for the Ministry of the Colonies, 44,512,348 francs for the Ministry of Agriculture, 191,438,894 francs for the Ministry of Public Works, 204,921,715 francs for *régie* and collection of taxes, and 32,444,000 francs for repayments. The capital of the debt on Jan. 1, 1896, was 31,094,350,744 francs. The interest charges and annuities provided for in the budget for 1899 amounted to 1,255,748,884 francs, of which 693,680,314 francs were for the consolidated debt, 326,332,926 francs for interest and amortization of the redeemable debt, and 235,735,644 francs for the floating debt.

The local revenues collected in all the departments in 1896 amounted to 280,499,000 francs; expenditures, 280,499,908 francs. The debts of the departments made the sum of 751,770,240 francs. The ordinary revenues of all the communes amounted collectively to 751,770,240 francs; expenditures, 718,381,279 francs. The sum of the communal debts reached 3,511,984,252 francs. The ordinary receipts for the city of Paris were estimated for 1898 at 298,854,415 francs, and the extraordinary receipts at 54,874,705 francs; total, 353,729,120 francs, which balanced the estimated expenditures. The debt of Paris in 1896 was 1,769,000,000 francs.

The Army.—The law of July 27, 1872, made personal military service obligatory on all Frenchmen, who from the age of twenty-one are bound to serve three years in the active army; ten years in the active army reserve, which is twice called out for four weeks of exercises; six years in the territorial army, subject to one call for two weeks; and six years in the territorial reserve, called out once for a single day. A part of the conscripts, chosen by lot, the number being fixed each year by the Minister of War, pass into the reserve after one year of service; also those who are needed for the support of their parents

and the conscripts from the French population of Algeria. All those who are incapable of bearing arms or who serve less than the full term of three years pay a military tax of 6 francs and a variable surtax. For the colonial forces men are recruited only by voluntary enlistment. Since 1890 the annual recruit for the French army, inclusive of about 11,400 marines and the volunteers, has averaged 220,000. In 1895 the number was 224,535. The territory of France is divided into 20 regions, including Algeria, each occupied by an army corps, composed ordinarily of two divisions of infantry, a brigade of cavalry, a brigade of artillery, a battalion of engineers, a squadron of train, a section of the general staff, sections of recruitment, artificers, and the hospital service, and a legion of gendarmery. The military government of Paris, with the fortress artillery and a separate brigade of engineers, is distinct. Seven divisions of cavalry are attached to the army corps and the military government of Paris according to their requirements. The Nineteenth Army Corps in Algeria has three special divisions of cavalry and a division of infantry occupying Tunis. The infantry is armed with the Lebel rifle of 1886, having a bore of 8 millimetres and a magazine holding 8 cartridges. The dragoons, hussars, and chasseurs are armed with carbines of the model of 1886, the cuirassiers with revolvers. The field artillery comprises 430 mounted batteries of 6 pieces, 52 batteries of horse artillery, and 14 batteries of mountain artillery, besides 4 mounted and 8 mountain batteries in Algeria and Tunis. It is armed with rapid-firing guns of 7.5 centimetres or the recently introduced 12-centimetre guns. The foot artillery, comprising 107 batteries, has guns of 9.5, 20, and 27 centimetres and mortars of 15 centimetres.

The army in France on the peace footing, as provided for in the budget of 1899, had a total strength of 547,515 officers and men, 26,849 being officers. The Algerian corps numbered 55,122, of whom 2,195 were officers, and in Tunis were stationed 13,455, of whom 560 were officers, making the total peace strength of the French army, inclusive of 29,604 officers, 616,092 men, with 142,333 horses. The general staff numbered 3,485 officers, with 704 men, in France; 283 officers, with 94 men, in Algeria; and 70 officers, with 23 men, in Tunis. In the military schools there were 347 officers and 3,027 men. On other details there were 1,728 officers and 245 men in France, 550 officers and 222 men in Algeria, and 110 officers and 4 men in Tunis. In the 19 army corps of France there were 336,006 infantry, including 12,300 officers; 11,860 administrative troops; 66,681 cavalry, including 3,489 officers; 78,090 artillery, including 3,948 officers; 12,219 engineers, including 484 officers; and 8,527 train, including 361 officers; making a total of 513,383 men, including 20,582 officers. The gendarmery numbered 21,546 men, including 624 officers; the Garde Républicaine, 3,050 men, including 83 officers. In Algeria the infantry numbered 36,052 men, including 866 officers; the administrative troops, 3,527 men; the cavalry, 7,597, including 365 officers; the artillery, 2,583, including 49 officers; the engineers, 867, including 13 officers; the train, 2,175, including 38 officers. In Tunis the infantry numbered 8,823 men, including 256 officers; the administrative troops, 519 men; the cavalry, 1,853, including 86 officers; the artillery, 854, including 17 officers; the engineers, 340, including 4 officers; the train, 716, including 13 officers. The number of gendarmes in Algeria was 1,172, including 31 officers; in Tunis, 143, including 4

officers. The number of troops present in the active army in the beginning of 1899 was 540,582, and the number of gendarmes and Republican Guards was 25,647. The effective war strength of the French army is estimated at 2,500,000. The total number of men liable to service is about 4,350,000, of whom 2,350,000 are in the active army and its reserve, 900,000 in the territorial army, and 1,100,000 in the territorial army reserve.

The Navy.—The French navy in 1898 comprised 19 first-class, 10 second-class, and 7 third-class battle ships, 14 coast-defense vessels, 13 first-class, 17 second-class, and 10 third-class cruisers, 21 torpedo gunboats, and 125 first-class, 78 second-class, and 45 third-class torpedo boats. In this list only effective vessels are counted. There were building 1 first-class and 1 second-class battle ship, 10 first-class cruisers, 1 third-class cruiser, 1 torpedo gunboat, and 22 first-class torpedo boats. A programme of construction has been adopted which will add 85 vessels to the fleet in the course of eight years, beginning in 1898, at a total expense of 721,815,572 francs. The expenditure for 1899 was fixed at 111,494,942 francs. The vessels to be begun in that year were 1 battle ship of 14,500 tons, 2 armored cruisers of 10,014 tons each, 2 cruisers of 4,000 tons, 2 destroyers of 400 tons, 4 large torpedo boats, 11 first-class torpedo boats, and 6 submarine boats. The total programme comprises 8 battle ships, 10 armored cruisers, 10 other cruisers, 10 destroyers, and 42 torpedo boats of various classes. The superstructures on French battle ships have been much reduced in size on the later constructions, and the principal guns are disposed as in English ships. The *Hoche*, of 10,823 tons, launched in 1886, was the first of the newer type of vessels, having in the bow and stern 13.4-inch guns in closed revolving turrets and 10.8-inch guns on either broadside in barbette turrets protected by shields. The *Neptune*, of 10,810 tons, the *Marceau*, of 10,679 tons, and the *Magenta*, of 10,680 tons, have 13.4-inch guns mounted in barbette turrets as the only heavy guns. In these vessels the protection is better than in the earlier ones, but the side armor is reduced from 20 inches, or 22 inches, as on the *Amiral Baudin* and *Formidable*, to 18 inches. The quick-firing smaller guns are much more numerous and more effectively disposed. The *Brennus*, of 11,215 tons, has the armor plates reduced to 17½ inches, enabling her to carry 3 heavy guns, 2 forward and 1 aft. The *Bouvines*, *Valmy*, and *Jemmapes*, launched in 1892, with a displacement of about 6,500 tons, have 18 inches of armor on the sides, and carry, the first 12-inch, the two last 13.4-inch guns in their turrets. The *Tréhouart*, another vessel of this class, was built a little larger. The *Charles Martel* and *Jauréguiberry*, of 11,600 tons, and the still more powerful *Carnot*, *Masséna*, and *Bouvet*, carry 2 10.8-inch guns in turrets, besides the 12-inch guns mounted in turrets fore and aft. In the latest, the 5.5-inch and 4-inch, the quick-firing guns are also placed in close turrets, and the deck is not only armored but protected by a bulwark of 4-inch plating against the direct action of high explosives in shells. The *Charlemagne* and *St. Louis*, of 11,097 tons, carry 4 12-inch guns coupled in turrets, with a secondary armament of 10 5.5-inch, 8 3.9-inch, and 26 smaller quick firers, and with a belt of armor 15½ inches thick, are engaged for a speed of 18 knots. Their sister ship, the *Gaulois*, has her great guns mounted in barbette. The *Jena*, of 12,052 tons, carries a more powerful secondary armament than the others, consisting of 10 5.5-inch, 8 4-inch,

and 34 smaller quick frirers; and she is better protected, though the heavy plating is reduced to 13½ inches. She is fitted with Belleville boilers. A sister, the Suffren, is building at Brest. The latest development in second-class battle ships is the Henri IV, of 6,889 tons, armed with 1 12-inch, 10 5.5-inch, and 10 small quick-firing guns. The newer type of armored cruiser has been developed from the Dupuy de Lôme, launched in 1890, having a displacement of 6,305 tons, an armament of 2 7.6-inch guns, 6 6.5-inch quick-firing guns, and 20 small ones, and engines of 14,000 horse power, giving a nominal speed of 20 knots. The Latouche-Treville, Charner, Bruix, and Chanzy, of 4,600 tons and upward, with curved turtle decks, carry also 2 7.6-inch guns, but a smaller secondary armament, and can make 18 or 19 knots. The Pothuau, of 5,275 tons, launched in 1895, has 10 5.5-inch and 18 smaller quick frirers, besides the 7.6-inch guns. The Foudre is a torpedo cruiser, launched in 1895, with a displacement of 6,090 tons, a powerful quick-firing armament, and engines capable of making 18½ knots. The D'Entrecasteaux, launched in 1896, is a protected cruiser of 8,114 tons, armed with 2 9.5-inch guns and 12 5.5-inch and 12 small quick-firing guns, and having engines of 13,500 horse power, giving a speed of 19 knots. Higher speed was aimed for in the Guichen, launched in 1897, which has a displacement of 8,277 tons, a quick-firing armament only, consisting of 2 6.4-inch, 6 5.5-inch, and 10 smaller pieces, and engines of 24,000 horse power, capable of giving a sustained speed of 23 knots. The Chateaufort is an improvement, being a little lighter and, while carrying the same number of guns, making the same speed with engines not quite so powerful. This is the rate of speed marked out for the new armored cruiser Jeanne d'Arc, which has a displacement of 11,270 tons and engines of 28,000 horse power, and is armed with 2 7.6-inch guns and a secondary battery of 8 5.5-inch, 12 4-inch, and 26 small quick frirers; also in the protected cruiser Jurien de la Gravière, of 5,500 tons, with engines of 17,000 horse power and an armament of 8 6.4-inch and 12 1.8-inch quick frirers. The Montcalm, Dupetit-Thouars, and Gueydon are armored cruisers of 9,517 tons, carrying 2 7.6-inch, 8 6.4-inch quick-firing, 4 4-inch quick-firing, and 24 smaller guns, having engines of 20,000 horse power, capable of making 21 knots. The Gloire, Condé, and Sully, of the same class, are made a little larger, 10,000 tons. The Kleber, Desaix, and Duplex, of 7,700 tons, with an armament of 10 6.4-inch and 16 smaller quick frirers, are designed to make 21 knots with engines of 17,100 horse power. The vessels of the Gloire class have a complete belt of armor, 6 inches at the water line and thinner above, with armored decks having a splinter-proof lining, and their 2 heavy guns are mounted in armored turrets, the others in casemates. The smaller cruisers are like these in general design, and all are fitted with tubular boilers. The newest French torpedo boats are very fast, excelling even the Forban, which attained a speed of 31 knots.

Commerce and Production.—The soil of France is naturally fertile, and by diligent cultivation is made to produce a great quantity and variety of crops. In 1897, when the product of wheat was only three fourths of an ordinary crop, and many other crops showed a like deficiency, the yield of the principal agricultural products was as follows: Wheat, 86,900,088 hectolitres; barley, 14,503,560 hectolitres; oats, 80,204,076 hectolitres; rye, 16,904,215 hectolitres; buckwheat, 9,372,470 hectolitres; maize, 10,713,182

hectolitres; mixed grains, 3,096,871 hectolitres; potatoes, 113,176,149 quintals; sugar beet, 77,617,324 quintals; other beets and turnips, 120,641,874 quintals; colza, 572,993 quintals; linseed, 133,060 quintals; flax, 186,990 quintals; linseed, 95,077 quintals; hemp, 233,303 quintals; wine, 31,943,073 hectolitres; tobacco, 265,758 quintals; clover, 42,760,072 quintals; hay, 200,890,003 quintals. The total area of the vineyards in 1898 was 1,706,513 hectares, larger than that given up to potatoes or rye. The imports of wine were 7,529,000 hectolitres, and exports only 1,774,862 hectolitres. The production of cider amounted to 10,637,000 hectolitres. The value of the chestnuts and walnuts, olives, cider apples, prunes, and mulberry leaves produced in 1897 was estimated at 171,132,758 francs; of oranges and lemons, grown in the departments of Alpes Maritimes, Var, and Corsica, 1,140,355 francs. The live stock at the end of 1897 comprised 2,899,131 horses, 205,715 mules, 361,414 asses, 13,486,519 cattle, 21,445,113 sheep, 6,262,764 hogs, and 1,495,756 goats. The production of silk cocoons in 1897 was 7,760,132 kilogrammes. The export of cocoons was 463,232 kilogrammes, valued at 4,053,280 francs; of raw silk, 4,142,009 kilogrammes, valued at 89,308,843 francs. The chief mineral products are iron and coal. The number of separate mines in 1896 was 499; the total value of the product, 345,092,580 francs. The production of coal and lignite was 29,189,900 tons; of iron ore, 3,409,372 tons; of pig iron, 2,340,000 tons; of finished iron, 829,000 tons; of steel, 917,500 tons; of zinc, 35,585 tons; of copper, 6,544 tons; of nickel, 1,545 tons; of aluminum, 370 tons; of silver, 70,479 kilogrammes. The silk industry in 1896 employed 1,624,530 spindles for throwing and 150,000 for spinning and 28,270 power looms, besides 39,165 hand looms. In the cotton industry 4,024,811 spindles were at work; in the woolen industry, 3,173,274 spindles, 5,593 carpet looms, and 11,714 power and 16,604 hand looms for weaving cloth. The imports of woolen yarns were valued at 10,800,000 francs, and exports at 24,100,000 francs; imports of woolen cloth at 40,000,000 francs, and exports at 265,500,000 francs; imports of silk goods at 52,000,000 francs, and exports at 270,900,000 francs. The number of sugar works in 1897 was 358; the production of sugar was 668,545 tons. The production of alcohol was 2,208,140 hectolitres. The products of the fisheries in 1896 were valued at 101,624,792 francs. The codfish and oil brought home amounted to 569,155 quintals; herring, 319,186 quintals. The cod fishers receive premiums from the Government amounting to 4,983,000 francs per annum.

The general commerce of France in 1897 had a total value of 5,137,500,000 francs for imports and 4,803,100,000 francs for exports. The value of the special imports was 3,958,000,000 francs, of which 1,029,000,000 francs represent food products, 2,319,000,000 francs raw materials, and 608,000,000 francs manufactured goods. The special exports were valued at 3,598,000,000 francs, of which 721,000,000 francs represent food products, 944,000,000 francs raw materials, and 1,933,000,000 francs manufactured goods. The principal imports and their values in the special commerce of 1897 were: Raw wool, 343,700,000 francs; wine, 280,300,000 francs; raw silk, 266,400,000 francs; cereals, 247,400,000 francs; coal and coke, 189,500,000 francs; timber and wood, 154,600,000 francs; oil seeds, 135,600,000 francs; hides, skins, and furs, 116,500,000 francs; coffee, 105,400,000 francs; ores, 62,700,000 francs; silk manufactures, 52,000,000 francs; flax, 51,400,000 francs;

cattle, 41,100,000 francs; woolen manufactures, 40,000,000 francs; cotton manufactures, 36,300,000 francs; sugar, 32,100,000 francs. The leading exports and their values in 1897 were: Silk goods, 270,900,000 francs; woolen goods, 265,900,000 francs; wine, 232,500,000 francs; woolen yarn and raw wool, 172,200,000 francs; small wares, 160,300,000 francs; cotton goods, 119,300,000 francs; raw silk and yarn, 117,700,000 francs; leather, 102,800,000 francs; linen cloth and clothing, 95,400,000 francs; cheese and butter, 86,000,000 francs; hardware and tools, 79,500,000 francs; furs and skins, 77,100,000 francs; chemical products, 75,400,000 francs; leather goods, 69,400,000 francs; spirits, 51,900,000 francs; refined sugar, 45,400,000 francs.

The special imports of coin and bullion in 1897 were 461,845,329 francs, comprising 290,715,386 francs of gold and 171,129,943 francs of silver; special exports, 326,698,971 francs, comprising 131,862,865 francs of gold and 194,836,106 francs of silver.

The special trade of 1897 was distributed among the different countries as shown in the following table, giving values in francs:

COUNTRIES.	Imports.	Exports.
Great Britain.....	485,000,000	1,132,000,000
Belgium.....	288,000,000	513,000,000
United States.....	458,000,000	242,000,000
Germany.....	308,000,000	380,000,000
Algeria.....	228,000,000	216,000,000
Spain.....	247,000,000	199,000,000
Italy.....	132,000,000	151,000,000
Russia.....	226,000,000	.....
Argentine Republic.....	211,000,000	51,000,000
Switzerland.....	.....	191,000,000
British India.....	122,000,000	.....
Brazil.....	.....	61,000,000

The total export and import trade of the principal ports in 1897 was as follows: Marseilles, 1,763,000,000 francs; Havre, 1,657,000,000 francs; Paris, 740,000,000 francs; Bordeaux, 627,000,000 francs; Dunkerque, 559,000,000 francs; Boulogne, 465,000,000 francs; Calais, 262,000,000 francs; Rouen, 217,000,000 francs; Dieppe, 182,000,000 francs; Tourcoing, 171,000,000 francs; Cette, 164,000,000 francs.

Navigation.—The total number of vessels entered at the ports of France during 1897 was 100,277, of 22,499,031 tons, of which 80,005, of 11,512,233 tons, were French and 20,272, of 10,986,798 tons, were foreign. The total number of vessels cleared was 100,897, of 22,807,548 tons, of which 80,473, of 11,857,131 tons, were French and 20,424, of 10,950,417 tons, foreign. The French vessels entered comprised 8,592, of 4,603,320 tons, engaged in the foreign trade and 71,413, of 6,908,913 tons, in the coasting trade; of those cleared 9,060, of 4,948,218 tons, were in the foreign trade and 71,413, of 6,908,913 tons, in the coasting trade.

The French merchant marine on Jan. 1, 1898, numbered 14,352 sailing vessels, of 421,462 tons, and 1,212 steamers, of 499,409 tons.

Railroads, Posts, and Telegraphs.—The length of railroads in operation in 1897 was 23,167 miles, besides 2,610 miles for local traffic only and 2,234 miles of tramways.

The number of letters forwarded by the post office in 1896 was 912,438,000, of which 761,605,000 were internal and 150,833,000 international; of registered letters and packets, 43,749,000, of which 41,373,000 were internal and 2,376,000 international; of postal cards, 56,628,000, of which 49,887,000 were internal and 6,741,000 international; of newspapers, books, and samples, 1,195,454,000, of which 1,052,975,000 were internal and

142,479,000 international. The postal and telegraphic receipts amounted to 229,072,774 francs, and expenses to 180,324,215 francs. The total length of telegraph lines on Jan. 1, 1897, was 64,422 miles; length of wire, 208,828 miles. The number of messages in 1896 was 45,708,298, of which 36,968,805 were internal paid messages, 5,944,217 international, 1,410,297 in transit, and 1,384,979 official. The telegraph service is supplemented in Paris by the pneumatic tubes, of which there are 237 miles.

Dependencies.—The French colonies, protectorates, and spheres of influence, including Algeria and Tunis, but not the central Soudan conceded to France in the latest Anglo-French African delimitation treaty, have an aggregate area estimated at 3,630,000 square miles, with a population of 53,000,000. Mayotte, with an area of 140 square miles and 11,640 inhabitants, and the Comoros, with an area of 620 square miles and a population of 53,000 Musulmans, are islands off the east coast of Africa, producing sugar and vanilla, and recently coffee also. Réunion, having an area of 965 square miles and a population of 171,713, has a ruling class of creole proprietors, represented in the French Chambers by a Senator and 2 Deputies, who cultivate plantations of sugar cane, vanilla, coffee, cacao, and spices, with the aid of Indian coolie and negro labor. There is a railroad 78 miles long. The imports were 18,650,000 francs in 1895; exports, 21,734,520 francs.

In Asia France possesses French India, Annam, Cambodia, Cochin China, and Tonquin and Laos, having an aggregate area of 285,147 square miles and 21,821,910 inhabitants. The Indian possessions are towns of Pondicherry, Karikal, Shander-nagar, Mahe, and Yanaon, with adjacent districts, which were left to France by the treaties with England after the Napoleonic wars. There is a governor residing at Pondicherry, and the colony is represented in the French Chambers by a Senator and a Deputy. The total area is about 200 square miles and the population 286,913. The budget in 1897 was 1,209,876 francs, exclusive of the expenditure of the French Government, which for 1899 was 296,619 francs. The chief article of export is oil seeds.

Cochin China, Tonquin, Annam, and Cambodia are united under the general control of the Superior Council of Indo-China, which fixes the budget of Cochin China and advises as to those of Annam, Tonquin, and Cambodia. The French expenditure for Indo-China in 1899 was 20,360,000 francs. The four dependencies form a customs union. The imports into France from Indo-China in 1897 were 23,215,493 francs; exports from France to Indo-China, 38,557,399 francs. Cochin China is a French colony represented in the Chamber by a Deputy. It has an area of about 23,000 square miles and a population estimated in 1897 at 2,034,453. The French population was 4,335. There is a French garrison, numbering 1,217 in 1897; also a native soldiery consisting of about 2,400 Annamites. The main crop is rice, of which 10,086,700 piculs were exported in 1897 to China, Java, and Europe. Other products are salt, cotton, hides, fish, isinglass, pepper, cardamom seeds, and copra. The total value of exports in 1897 was £3,900,050. The port of Saigon was visited by 497 vessels, of 660,920 tons. There are 51 miles of railroad and 2,276 miles of telegraphs, with 3,840 miles of wire.

Cambodia is a kingdom, the titular ruler of which, King Norodom, is under French tutelage. The area is 46,000 square miles, with a popula-

tion estimated at 1,500,000, including 250,000 Chinese and Annamites and 40,000 Malays. The budget for 1898 was \$2,523,000. The products, besides rice, are cotton, betel, tobacco, indigo, pepper, maize, cinnamon, and coffee. Salted fish is also exported.

Annam has a king, Thanh Thai, and the officials are Annamites, but they are under the control of the French Government, which keeps a garrison in the citadel of Hue, the capital. The area of the protectorate is 81,042 square miles, with a population variously estimated between 2,000,000 and 6,000,000. The chief products are sugar, cinnamon, rice, maize, areca nuts, silk, tobacco, sugar, betel, manioc, bamboo, caoutchouc, drugs, and dyes. The natives weave silken stuffs and make pottery, and they work the iron, copper, zinc, and gold mines of the country.

Tonquin was formerly governed through a viceroy of the King of Annam, but has been administered directly by a French resident since July, 1897. The area is 34,740 square miles, with a population of about 9,000,000, not including the Laos territory formerly claimed by Siam, but annexed by France in 1893, which has an estimated area of 110,000 square miles and 270,000 inhabitants. Tonquin produces large quantities of rice for export to China. Other products are sugar, silk, cotton, pepper, and tobacco. Copper and iron are mined by the natives and coal by a French company. There are factories for expressing oil from seeds. In the Laos country are tin, lead, gold, and precious stones, and large forests of teak. The soil is rich, producing rice, cotton, and tobacco, but transportation to the seaboard is difficult, as the island of Khone blocks the Mekong. A railroad, 4 miles long, has been built across the island, and steamboats have been placed in the upper river. The number of vessels entered in 1896 was 1,407, of 461,454 tons. There is some trade with the Chinese province of Yunnan, to which European goods of the value of 5,000,000 francs were forwarded in 1896, and 3,200,000 francs' worth of native goods were brought back. The railroad from Phulang to Langson, 64 miles, is being built through to the Chinese frontier at Nacham. The French forces holding Tonquin and Annam number 23,370 men, of whom 14,500 are native soldiers.

The French colonies in America are Guadeloupe and Martinique (see WEST INDIES), French Guiana, or Cayenne, and St. Pierre and Miquelon. Guiana has an area of 46,850 square miles and a population estimated at 22,714, not including the wild tribes of the mountains. It is a penal colony, and the population includes about 4,500 convicts and convict settlers. The colony is administered by a governor, assisted by a council general, and is represented by a Deputy in the French Chamber. The local revenue in 1898 was 2,453,261 francs. The expenditure of France in 1899 was 6,368,139 francs, of which 4,915,000 francs were for the penal establishment. The products are few. The most important one is gold, of which 101,938 ounces were exported in 1896. More than half came from the tract about which there has been a dispute between France and Brazil that under a convention signed in April, 1897, at Rio de Janeiro was to be submitted to arbitration.

St. Pierre and Miquelon are islands off the south coast of Newfoundland, serving as stations for provisioning and refitting the fleet of French cod fishers who visit the banks. St. Pierre, with the smaller islands of the group, has an area of 10 square miles, with about 5,700

population. The group of which Miquelon is the chief island has an area of 93 square miles and 6,250 inhabitants. The imports of both groups in 1895 amounted to 8,165,792 francs; exports, 11,188,087 francs. There were entered at St. Pierre 1,544 vessels, of 47,868 tons, besides French and colonial vessels numbering 1,986, of 116,774 tons. The local budget for 1898 was 500,710 francs; the expenditure of France for 1899 was 290,791 francs.

In Australasia France possesses the island of New Caledonia and in Oceanica the Society Islands, with Raiatea, Huahine, Bora Bora, and other islands northwest of that group, and in other parts of the ocean the Marquesas, Tuamotu, Gambier, and Tubuai groups and Rapa. The area of New Caledonia is 6,000 square miles. The population in 1896 was 51,033, of whom 8,364 were European civilians, 1,506 military, 10,757 French convicts, 3,041 Asiatics, and 27,345 natives. The local budget in 1898 was 2,807,955 francs; the expenditure of France in 1899 was 7,392,361 francs, including 4,425,323 francs for the penal establishment. The Governor is assisted by a council general. There are mines of nickel, cobalt, chrome, and coal. In 1897 ores and minerals were exported to the amount of 3,900,000 francs. The number of vessels entered at the port of Noumea during 1897 was 127, of 134,656 tons; cleared, 157, of 183,091 tons. Dependencies of New Caledonia are the neighboring Isle of Pines, having an area of 58 square miles; the Loyalty Islands, which have an area of 756 square miles; the Huon Islands; and the more distant Chesterfield and Wallis groups.

The islands in Oceanica are under the administration of a single governor. Tahiti, the largest island of the Society group, has an area of 412 square miles, with a population of 10,287. Moorea, the next in extent, has an area of 50 square miles and a population of 1,596. The local budget in 1898 was 1,229,625 francs; the expenditure of France in 1899 was 856,080 francs. The exports in 1897 were valued at 3,150,668 francs; imports, 3,800,639 francs. The chief exports are copra, pearl shells, cotton, vanilla, and oranges. The port of Papeete was visited in 1897 by 286 vessels, of 29,585 tons.

The colonial budget for 1898 was 91,000,000 francs for 1898 and 86,000,000 francs for 1899, but these figures were largely exceeded. The annual cost of the colonies to the French Government has grown to between 110,000,000 and 120,000,000 francs on the average. Of the 86,000,000 francs voted in the regular budget for 1899 the military occupation absorbs 66,000,000 francs, of which 21,000,000 francs are for Indo-China, 18,500,000 francs for Madagascar, and 6,000,000 francs for the French Soudan. The remaining 20,000,000 francs appropriated for civil administration is double what England contributes to the expenses of colonial government. The French officials in the colonies greatly outnumber the French colonists—in Tonquin and Annam 1,396 to 447, in Cochinchina 1,966 to 272, in Senegal 521 to 367, in the Ivory Coast colony 111 to 52, in the French Congo territories 254 to 20. The expense of the colonies has grown from 5,000,000 francs in 1820. It was only 32,000,000 in 1880, on the eve of the great expeditions in Asia and Africa. In 1890 it exceeded 59,000,000 francs, and the acquisition of the Soudan, Dahomey, and Madagascar has nearly doubled this figure. The money cost of the colonies to France since the beginning of the period of expansion in 1881 has been disproportionate to the commercial returns. The conquest of Cochinchina

absorbed 284,000,000 francs, that of Tonquin 269,000,000 francs. The Soudan since 1881 has swallowed up over 200,000,000 francs, Madagascar close to 150,000,000 francs, Dahomey perhaps 75,000,000 francs since 1892, taking only the sums appropriated in the annual budgets, which do not cover the whole expense. Madagascar, for instance, in the year of the expedition entailed an expense of over 75,000,000 francs that does not appear in the budget. The aggregate sum that has been absorbed in colonial expansion since the period of conquest began has been about 1,500,000,000 francs. The annual exportation of French produce and manufactures to the colonies is only a little over 119,000,000 francs, of which 36,000,000 francs go to the American colonies, 41,000,000 francs to Africa, and 35,000,000 francs to Asia. Foreigners sell 26,000,000 francs of goods in the American, 42,000,000 francs in the African, and 63,000,000 francs in the Asiatic colonies. The trade of the colonies has in some instances declined, in others it has passed into the hands of foreigners, as the Germans on the Guinea coast and elsewhere the British. French exports to Martinique have declined from 22,000,000 francs in 1858 to 15,000,000 francs in 1895, to Guadeloupe from 18,000,000 to 9,000,000 francs, to Réunion from 30,000,000 to 12,000,000 francs. The importations from France of Senegal and the Soudan have, on the other hand, risen from 9,000,000 to 19,000,000 francs, those of other African possessions from 2,000,000 to 13,500,000 francs, those of Indo-China from 4,000,000 to 23,000,000 francs; but from these totals should be deducted the values of war material and stores destined for the troops. Taking the colonies as a whole, their purchases of French goods were 92,500,000 francs in 1858, and were only 28 per cent. greater in 1895; but during this period the expenditure of the French Government in the colonies has grown 500 per cent.

The Dreyfus Case.—Spies of the secret intelligence department of the army in September, 1894, discovered in the waste-paper basket of Lieut.-Col. Von Schwarzkoppen, military *attaché* of the German embassy, fragments of a paper which, when pieced together, formed a memorandum of which this is the translation:

"In the absence of any news indicating your desire to see me, I nevertheless send you, sir, certain information of interest: (1) A note on the hydraulic brake of 120 (method of operating this piece); (2) a note on the outpost troops (a few modifications will be made in the new plan); (3) a note on modifications in artillery formation; (4) a note relating to Madagascar; (5) the scheme relative to the manual of field firing of March 14, 1894. This last paper is extremely difficult to procure, and I can have it at my disposal only for a very few days. The ministry has issued a definite number to the corps, and these corps are responsible for them; each officer is obliged to return his copy after the manoeuvres. If, therefore, you wish me to take from it whatever may interest you, and hold it afterward at my disposal, I will take it, unless you want me to make a copy *in extenso* and address it to you. I am just leaving for the manoeuvres."

It was evidently part of a treasonable correspondence between a French officer and the foreign *attaché*. No one but an artillery officer, and one connected with the general staff, it was thought, could furnish the information enumerated in this *borderceau*, or memorandum. Capt. Alfred Dreyfus, a Jewish officer of artillery attached to the staff, who had made himself un-

popular with his comrades by his inquisitiveness regarding details of the service not connected with his own duties, was suspected, and the chief of his bureau affirmed that the handwriting of the *borderceau* resembled that of Dreyfus. Spies investigated his history for years past, and discovered numerous facts pointing to his guilt. In correspondence between the German and Italian *attachés* in 1893 the former hinted at information he expected to receive from some one on the general staff; and, in a later letter, of receiving the military organization of the French railroads, which could only come from the fourth bureau, where Dreyfus was then at work on the most important of the railroads, the one leading to Germany; and another suggested that the spy should be careful not to speak to his chief in the second bureau about a matter on which information was desired, for the reason that the foreign agent had openly made inquiries of the chief regarding the same subject, and this letter was written at a time when Dreyfus was employed in the second bureau. The Minister of War had knowledge at the same time from an independent source that there was a traitor in the second bureau. A French agent employed to furnish a foreign general staff with false information received a rude letter pointing out that pretended disclosures were contradicted by positive information derived from the map department of the Ministry of War, and another French agent had oral information that there was at this time a traitor in the second bureau. The *borderceau* was couched in the technical language of the general staff, and exactly fitted in with the work done in that office during the summer of 1894. Another suspicious circumstance was the adoption by the German Government of a shell much resembling one that had been elaborated in the artillery school at Bourges while Dreyfus was there. After leaving the school Dreyfus wrote to an officer there asking for the details of later experiments with the shell, falsely alleging that the professors at the École de Guerre desired the information. The charging of melinite shells seems also to have been revealed to a foreign power about the same time. Still another fact was that Germany obtained knowledge that batteries of No. 120 guns had been assigned to the Ninth Army Corps, the note regarding which had been sent to the section in the first bureau of the general staff in which Dreyfus was then working, and the minute taken down at the time had unaccountably disappeared. The notes on the hydraulic brake of gun No. 120 and on artillery formations could only be furnished by an artillery officer, and the language employed in the *borderceau* was such as only an artilleryist would use. The word hydraulic instead of hydro-pneumatic, which is the technical French designation of the gun brake, was an exception, which could be explained by the fact that the Germans applied to it the term hydraulic. Dreyfus being perfectly conversant with the German language, his mother tongue in Alsace. The statement in the *borderceau* that the firing manual was difficult to obtain would not probably be made by a line officer, but might by one of the *stagiaires* of the staff, because these passed the few copies furnished to them from hand to hand, whereas any officer in the corps could have a copy for himself. Information regarding the covering or outpost troops could only come from the staff, and the fact that changes were to be made was known only to the staff. The announcement at the end of the *borderceau* that the writer was going to the manoeuvres

was incorrect as to the *stagiaires*, as they were detained that year to work upon the plans, but they had the promise of the chief of staff that they should go nevertheless if it were possible.

As soon as the fact was revealed in 1893 by the correspondence and oral disclosures of foreign agents that there was a traitor connected with the general staff a watch was set on a great number of persons having access to the War Office, and this surveillance was gradually narrowed to a limited number of individuals, then directed after the *bordereau* reached the War Office in September, 1894, to the artillery *stagiaires*, and finally concentrated on Dreyfus. Major Du Paty de Clam, assisted by the chief detective of the War Office, conducted the preliminary inquiry, and when presumptive proof was in his possession he called Dreyfus into a room and before witnesses began to dictate to him a pretended letter, beginning with insignificant words, and little by little introducing phrases of the *bordereau*. When Dreyfus wrote these his hand trembled more and more, and he said it was so cold that he could not write, although the temperature was really moderate. Major Du Paty de Clam then placed him under arrest. Dreyfus after his arrest increased the suspicions of the officers who interrogated him by his persistent denial of everything. He denied all knowledge of army concentration, although he had himself drawn on a map the zones of concentration; he said he did not know that there was a firing manual, although he had had a copy in his possession. Even after his transportation he refused to discuss the *bordereau*, yet a duplicate of it was found sewed up in the lining of his vest. On the occasion of his degradation, as attested by Capt. Lebrun-Renault, the gendarmery officer who guarded him, he made this confession: "Original documents were not delivered, but only copies. The minister knows I am innocent, and in three years my innocence will be established. If I gave up documents to the foreigner, it was to obtain more important ones in return."

Of the five experts who compared the *bordereau* with the handwriting of Dreyfus, two did not attribute it to him, while three did, though they found the writing of the first page unnatural, constrained, possibly disguised, and different from the second page, which was written in a flowing, natural hand, and was more like the real writing of Dreyfus.

Dreyfus was arrested on Oct. 15, 1894, and kept for two weeks in the Cherche Midi prison in ignorance of the charges against him. His wife was cautioned not to tell of his arrest, nor did it become known until it was divulged by a newspaper. He was tried by court-martial, and when the handwriting experts disagreed secret documents were shown to the judges, but not to the prisoner or his counsel. One of these was a private letter from Lieut.-Col. Von Schwarzkoppen, the German military *attaché*, to Lieut.-Col. Panizzardi, his colleague of the Italian embassy, written two years before, which contained the sentence, "*Cette canaille de D. devient trop exigeante.*" It was afterward conceded by Dreyfus's accusers that the "D." referred to another person. Dreyfus was convicted, publicly degraded on Jan. 5, 1895, and on Feb. 9 transported to Devil's island, Cayenne, on a life sentence. His appeal to the supreme military council was not heard. In 1895 a card telegram (*petit bleu*) was brought by spies, which was in Lieut.-Col. Von Schwarzkoppen's handwriting, and was addressed to Commandant Esterhazy, calling upon him to

give more detailed information. Lieut.-Col. Georges Picquart, who had succeeded Col. Sandherr as chief of the intelligence department, looked up Esterhazy's record, which was bad, procured letters written by him, and found the handwriting so like the *bordereau* that he became convinced that Esterhazy was the traitor and Dreyfus an innocent man. He obtained permission from his superiors to pursue his investigations quietly, but found unexpected obstacles placed in his way. His chiefs would not sanction any steps tending to bring into question the justice of the Dreyfus verdict, for a revision of which the relatives of the condemned man were now agitating, and finally, on the ground that Col. Picquart was so much engrossed and worked up by these researches that he did not attend properly to the business of the office, they replaced him with Lieut.-Col. Henry, and sent him to organize the intelligence department in Tunis. A broker employed by Esterhazy had recognized the resemblance of his client's handwriting to a facsimile of the *bordereau* printed in a newspaper, and had communicated his suspicions to M. Scheurer-Kestner, one of the vice-presidents of the Senate. The latter went to Gen. Billot, Minister of War, but was told that the matter was a *chose jugée*, which could not be reopened. Mathieu Dreyfus, brother to the prisoner, wrote an open letter to the minister accusing Esterhazy. The wife of Capt. Dreyfus renewed her efforts to secure a retrial. Interpellations were made in the Chamber. Gen. De Boisdeffre, chief of the general staff, then asserted that the prisoner had been convicted on secret and irrefragable evidence submitted to the court. When it thus became known that secret documents had been put in evidence against Dreyfus without his knowledge, the illegality of the proceeding caused the agitation for a new trial to take a strong hold on a wide section of the public. Gen. Mercier, then Minister of War, justified the use of secret evidence on the ground that if it were made public it would lead to international complications. He affirmed that the Government possessed proofs that Dreyfus had been in correspondence with the agent of a foreign government for three years. The anti-Semitic press denounced the efforts to secure a revision of the trial as the work of an international syndicate of Jewish capitalists.

Major Esterhazy was ordered by his superiors to demand an investigation; but the court-martial that tried him was precluded from examining into the authorship of the *bordereau*, as Dreyfus had been judicially pronounced its author. Col. Picquart, who was recalled from Tunis to testify, was virtually on trial himself, and after the triumphant acquittal of Esterhazy on Jan. 11, 1898, he was arrested on the charge of forging the *petit bleu*, and, after that charge was dropped, was held on the charge of showing secret documents of the War Office to a lawyer. He was tried by court-martial and sentenced to be expelled from the army for revealing secret documents to his lawyer, and was held by the police to undergo a civil trial on this and on the charge of forgery of the *petit bleu*. Esterhazy was afterward placed on the retired list, and later still orders were given to arrest him for treasonable practices; but he escaped to England, and there published all kinds of startling but conflicting statements, denying what he had said before when he wanted to invent a new story. One of his avowals was that he was the writer of the *bordereau*. Emile Zola, who had published a diatribe against the general staff, was tried twice

for slander, and twice convicted, escaping to England before the second trial because the complaint was so drawn that he could not adduce proofs of his accusations. M. Cavaignac, on becoming Minister of War, informed the Chamber of the existence of a letter in the correspondence between the two foreign *attachés* in which the name of Dreyfus was mentioned. This letter was soon afterward discovered to be a forgery. Col. Henry, who had succeeded Col. Picquart in the intelligence department, confessed to having forged it—for the good of the country, he said—and a few days later he committed suicide in prison. M. Cavaignac and Gen. De Boisdeffre resigned, and the new ministry, headed by M. Dupuy, when Madame Dreyfus petitioned once more for a revision of the trial, on the ground that new material evidence had been discovered, referred the question to the criminal branch of the Court of Cassation. While the case was pending in the criminal chamber M. De Beaurepaire, one of the magistrates of the Court of Cassation, sought to impugn in advance the expected decision in favor of revision by accusing the president and another judge of the criminal branch of having shown partiality to Picquart at the time of his trial and of having held private communications with him and his lawyer. These charges were investigated by order of the Minister of Justice, and were declared to be baseless. M. Quesnay de Beaurepaire resigned his judgeship and published his accusations, adding fresh ones to them. An inquiry was then instituted to ascertain whether the criminal chamber had lost the public confidence. When the "miserable and fastidious details," as M. Dupuy designated them, were laid before the Chamber of Deputies, the insinuations against judges that M. De Beaurepaire had made being repeated in reports that Gen. Zur Linden, the military governor of Paris, had taken it upon himself to order to be made of the proceedings of the civil court, the Court of Cassation and the Government were sustained by a vote of 423 to 124. The Senate also vindicated the Court of Cassation and approved the separation of the judicial and executive powers. Without awaiting the result of the inquiry, an attempt was made by the opponents of revision to pass a special law taking the Dreyfus appeal out of the hands of the criminal chamber when it had already expended three months on the investigation, requiring the whole work to be done over again by the three chambers of the Court of Cassation sitting together. A subscription for the widow of Col. Henry, the suicide, to aid her in bringing suit against Joseph Reinach for defaming his memory by suggesting in newspaper articles that he had supplied Esterhazy with the treasonable information mentioned in the *bordereau*, was one of the means of agitation adopted by the antirevisionists, the Anti-Semites, Nationalists, Boulangists, and monarchistic revolutionists, who, forming the Patriotic League, the League of the French Fatherland, and other associations, which with the active participation of Orleanists and the covert aid of Bonapartists, under the pretext of defending the honor of the army, aimed at the subversion of the republic. The League of Patriots was frankly political, composed of Boulangists and open enemies of the republic as at present constituted. The League of the French Fatherland was joined by many men of the class called intellectual, representatives of the finest French culture, a large part of whom withdrew when they found that its object was not to surmount the prejudices awakened by the Dreyfus case,

and instill respect for the decisions of the civil courts, but to thwart revision and discredit the courts. Attacks on President Loubet, in which M. Coppée, the honorary vice-president of the league, joined, caused the resignation of most of the remaining academicians and distinguished representatives of literature. At the same time many officers of the army joined the league secretly, the names of military adherents being kept from the public.

Yielding to public clamor, the Government, hoping thereby to obviate all public distrust of the decision of the court, introduced a bill providing that the criminal chamber should conclude the taking of evidence, but that all the chambers united should then decide the question of annulling the condemnation or sending Dreyfus before a fresh court-martial. The bill was based on a report of M. Mazeau, first president of the Court of Cassation, who concluded that it would not be well to leave the criminal chamber to judge alone, although the result of the inquiry instituted by the Minister of Justice exonerated the judges of the criminal chamber, and the other members of the court besides M. Mazeau condemned the proposed law, as the commission of the Chamber, which had not yet reported, was also likely to do. The bill was offered by the Government as a measure of appeasement, calculated to satisfy the public mind and remove all doubts as to the justice of the verdict. The ministry threatened to resign if the bill was not passed as it stood, and it was passed on Feb. 10 by 332 to 216 votes. When the revision bill was before the Senate a street mob, headed by Deputies Déroulède, Marcel-Habert, Millevoye, and Drumont, hooted the newly elected President of the republic, calling him a Dreyfusard. The prosecution of Joseph Reinach, the most prominent and ardent of the Jewish defenders of Dreyfus, who had insinuated that Henry was a traitor, and was therefore charged by Mme. Henry with defaming her dead husband, was the greatest lawsuit ever seen at the Paris assizes, over 400 witnesses being summoned and a public subscription raised among the anti-Dreyfusards to defray the expenses of the prosecution. On Feb. 24 Paul Déroulède, president of the League of Patriots, accompanied by its secretary, M. Marcel-Habert, made a bold attempt to incite a military insurrection. The two Deputies, at the head of a few hundred followers, pushed themselves into the ranks of Gen. Roget's brigade as it was returning to the barracks from the funeral of President Faure. They succeeded in entering the barracks, and began to harangue the officers, calling upon them to upset the parliamentary republic in order to establish in its place a plebiscitary republic. Gen. Roget thereupon had them arrested for the offense of provocation by speeches and cries addressed in a public place to soldiers with the object of seducing them from their military duties and from the obedience which they owe to their chiefs. After his arrest M. Déroulède avowed that he had the revolutionary intention of raising the army to rebellion against the parliamentarians in order to abolish limited suffrage and restore universal suffrage for the good of the republic and the deliverance of the nation. M. Millevoye was arrested for inciting a street disturbance, but was released. In consequence of the demonstrations of the leagues, the Government instituted proceedings for their suppression as unauthorized associations under the law of 1834. The first of the prosecutions was directed against the pro-Dreyfus association called the Rights of Man League,

the officers of which were tried on April 18, found guilty, and subjected to a nominal penalty. The secretaries of the League of the French Fatherland and of the League of Patriots underwent the same formal condemnation.

The criminal chamber of the Court of Cassation on March 3 found that Col. Picquart and the lawyer Leblois should be tried by a civil court for the alleged forgery of the *petit bleu* and for using the forgery and divulging matter contained in secret documents of the Dreyfus case. Picquart, moreover, was found liable to trial by court-martial on the charge of communicating documents of the Ministry of War to M. Leblois. The Court of Cassation met on March 21 to consider the Dreyfus appeal. It decided to examine the secret *dossier*. M. Ballot-Beaupré, successor of M. Quesnay de Beaurepaire as president of the civil chamber, was made reporter, and in accordance with his report the court decided in favor of revision of the trial of 1894 and the sending of Alfred Dreyfus before a new court-martial.

The Minister of Foreign Affairs had on different occasions received official communications declaring that neither Col. Von Schwarzkoppen nor Col. Panizzardi had relations with Dreyfus. One of the documents which had confirmed the successive Ministers of War in their conviction of the guilt of Dreyfus was a message sent to the Italian Foreign Office after the arrest of Dreyfus suggesting that if the Italian Government had not been in communication with him it would be well to publish an official denial, so as to avert press comments. The final clause was made to read in the first inaccurate translation of the cipher, "Our emissary has taken his precautions." A key to the cipher was obtained by means of a decoy message, and the War Office was furnished with a copy of the correct reading. This document disappeared, and Col. Henry was sent to the War Office to get another. A copy was given to him, but this he kept or destroyed, and the document was afterward supplied from memory, and got into the secret *dossier* in this form: "Dreyfus arrested; our emissary forewarned." Another of the secret documents made a cousin of Dreyfus say that he believed in his guilt, whereas he had declared the opposite, and there was other falsified evidence of this character. The inquiry of the Court of Cassation revealed so much folly and credulity in the general staff and such tricks and chicanery and fantastic devices to falsify the evidence against Dreyfus, to screen Esterhazy, and to hunt down Picquart, that its reputation suffered, and some of the foremost officers of the French army have in succession lost their places, their standing, and their reputation for sagacity and ability, if not for probity and honor. Gen. Mercier, who sought to make the Dreyfus affair a stepping-stone for his political ambition, was one of the first to suffer. Gen. De Pellieux and Gen. Zurlinden were compromised by the latest revelations. Col. Du Paty de Clam and Col. Henry, with the permission or at the behest of their superiors, sent forged telegrams to Col. Picquart in Tunis, went to Esterhazy disguised in blue spectacles and false beards, made various adventuresses and shady characters their instruments and go-betweens, furnished him with articles to supply to newspapers, dictated or approved letters to the President of the republic, in which Esterhazy threatened the interposition of the Emperors of Austria and Germany. A document incriminating Dreyfus was abstracted from the secret *dossier* and handed to Esterhazy by a veiled lady

whom he met by appointment, and he, after copying the contents, delivered the original at the War Office, never knowing to whom he was indebted for this "liberating document." The dubious character and dishonest transactions of Esterhazy were known, and yet the chiefs of the general staff took him under their protection and declared him a man of honor. They compelled him to challenge Picquart and chose his seconds. Later they threw him over and punished him by dismissing him from the army on the charge of habitual misconduct. Col. Du Paty de Clam was also compulsorily retired on a charge of conduct unbecoming an officer. The motives for all these curious intrigues could not be divined, and, since men who stood at the head of the French army were concerned in them, it was natural to infer that these were a blind to cover up darker transactions in which they were involved. This dire but no doubt unfounded suspicion caused a more painful interest and deeper perturbation than the question of the guilt or innocence of Dreyfus or the justice of his trial. Gen. Gonse, Gen. De Boisdeffre, and all those who were active in the prosecution of Dreyfus and the defense of Esterhazy were made to feel the weight of public distrust.

A large number of forged documents and false affidavits incriminating Dreyfus were sold to the War Office by detectives, which were afterward eliminated from the *dossier*, as they only served to prove the stupidity and credulity of the intelligence department. Such were gossip tales of conversations overheard by cabmen and gambling-house servants, alleged secrets revealed by women of gallantry, and the like. The most notable forgery was that of two letters that were supposed to have been written by the German Emperor to Count Münster about Dreyfus. When their existence was first mentioned in a newspaper the German minister expostulated with the Minister of Foreign Affairs regarding the dangerous license given to the Paris press. After the first Dreyfus trial, when the newspapers and officials insinuated that there were grave secrets involving the question of peace or war, the German Emperor told his ambassador to go to President Casimir-Perier and ask him to declare that the German embassy was not implicated in the affair. President Casimir-Perier told Count Münster that the incriminating document had been obtained from the German embassy. Count Münster was surprised at this information, but still pressed for a note exonerating the embassy, which the President said could only be drawn up by the minister, and could not apply to one embassy alone. A note published in vague and general terms closed the incident.

On May 5 M. De Freycinet resigned his post as Minister of War in consequence of attacks in the Chamber which he had incurred by dismissing Georges Duruy, Professor of History at the Ecole Polytechnique, who had excited the anger of the students by publications in favor of Dreyfus; also as the result of a dispute with the Ministry of Foreign Affairs in regard to the mistranslated Panizzardi telegram. M. Krantz was appointed Minister of War, and he at once struck from the active list Capt. Cuignet, the officer who had prepared the last Dreyfus *dossier*, because he had communicated to the press the letters that had passed between the ministers. The furious attacks of the Anti-Semites impelled the Premier to demand a vote of confidence, obtaining 389 votes to 64. M. Ballot-Beaupré made a report in favor of revision at the end of May. He was convinced that the

bordereau was in Esterhazy's handwriting, adopting the conviction of experts who had first attributed it to Dreyfus, but changed their opinion after seeing the writing of Esterhazy. The submission of secret documents to the judges at the court-martial was an irregularity that would justify annulment of the verdict, but not revision, which was the question before the Court of Cassation. It would not be admissible to quash the verdict because the *bordereau* was a fact showing that a crime had been committed. The interpretations in favor of the innocence of Dreyfus since given to documents supposed to have been submitted and the forgery and suicide of Henry were not new facts warranting a retrial, neither was the discovery of the similarity of Esterhazy's handwriting to the *bordereau* such a new fact; on the other hand, the alleged confession of Dreyfus was not inconsistent with his innocence, because Capt. Lebrun-Renaud perhaps misunderstood his words, and he may have said that Major Du Paty de Clam asked him if he had not given up documents to obtain more serious ones in exchange. A new fact in the opinion of M. Ballot-Beaupré had been found, and this was that the same peculiar tracing paper on which the *bordereau* was written—obtainable in London, but not on sale in Paris—had been used previously by Esterhazy in his correspondence, although he declared in 1897 that he never wrote on such paper. On the other hand, every effort to find this kind of paper in the possession of Dreyfus or his friends had failed. The Court of Cassation on June 3 gave judgment decreeing that Alfred Dreyfus should be tried afresh by a court-martial at Rennes. Ex-President Casimir-Perier had testified that Gen. Mercier had told him that the document containing the words "canaille de D." was submitted to the court-martial; Gen. Mercier and Gen. De Boisdeffre refused to affirm or to deny this statement. The Court of Cassation found the evidence sufficient that this document was illegally communicated to the military judges, and found this illegality thus established to be a new fact justifying revision. Another new fact was the discovery of Esterhazy's letters written on tracing paper like the *bordereau*. The specific issue to be tried by the new court-martial was whether Dreyfus furnished a foreign power with the notes and documents enumerated in the *bordereau*. On the day the judgment was unanimously rendered a fashionable mob of Royalists and Anti-Semites made a disorderly demonstration against President Loubet at the Auteuil races; Baron Christiani even struck at him with a walking stick, and 130 arrests were made. M. Déroulède had been acquitted after turning his trial into a political demonstration. At the suggestion of M. Dupuy the Chamber considered the question of prosecuting Gen. Mercier, the ex-Minister of War, for placing the secret documents before the first court-martial, but by another vote the Chamber decided to await the Rennes court-martial. The Chamber passed a bill extending to prisoners before courts-martial the right to immediate interrogation and to the presence of counsel. Col. Du Paty de Clam was arrested on suspicion of complicity in the Henry forgeries, but was set free after a few days. Col. Picquart was released from custody. When the decision of the Court of Cassation was given Esterhazy, then in England, made a statement to a newspaper correspondent that he wrote the *bordereau*, and that he did so by order of Col. Sandherr; that the object was to supply false evidence for the con-

viction of Dreyfus, whose treason was known from German officers in the pay of France.

Dreyfus arrived in France on July 1 and was taken to the jail at Rennes. The solitary confinement on the Île du Diable had not broken his physical or mental vigor, although he was not allowed to speak to the sentinel, and since 1896 a palisade was built around the hut in which he was confined. This was in order to prevent his being rescued, a story having been printed of his escape on an American yacht, and for two months before it was finished he was chained to the floor at night. After the high fence was erected he was nearly suffocated until the floor of his cabin was raised. A forged letter addressed to him, interlined in sympathetic ink, suggested the precaution of copying all letters from his family and friends and giving him only the copies to read. Various traps and devices were used to induce him to reveal his accomplices in treason, if there were any.

Before the new trial of Dreyfus began the Government instructed the commissary to insist on confining the proceedings within the limits of the complaint defined by the Court of Cassation. Gen. De Gallifet became Minister of War at the grave juncture produced by the decision of the Supreme Court to grant a retrial, and he made important changes in the staff and the military commands to insure the discipline of the army in the event of civil disturbances. Gen. De Pellieux, who had conducted the Esterhazy prosecution, was removed from the command of Paris. Gen. de Négrier was dismissed from the Council of War and the post of inspector general because he issued an order announcing that when the Rennes court-martial was over the Supreme Council of War would call upon the Government to punish those who attacked the army, and if the Government refused to act the generals would act.

The court-martial began on Aug. 7. Ex-President Casimir-Perier, Gen. Mercier, the Minister of War who had ordered the first trial and sent the secret *dossier* to the court, other ex-ministers, members of the first court-martial, the generals of the staff, all who from the beginning had anything to do with the affair, were called as witnesses. The trial had proceeded a week when a political assassin, who was never found, wounded Maître Labori, the leading counsel for Dreyfus, with a pistol shot, so that he was incapacitated for many days. Paul Déroulède, who had been triumphantly acquitted by a sympathetic judge and jury, had renewed with his lieutenants his seditious agitation in Paris for a plebiscitary republic, in which President and Senators, as well as Deputies, should be elected by universal suffrage. When disturbances began he was again arrested. Jules Guérin, an Anti-Semitic leader, when threatened with arrest, provisioned, armed, and barricaded his house, in which he had collected a band of adherents, and bade defiance to the authorities, who, instead of forcing the building, placed a guard of soldiers in front of it.

One of the documents that had disappeared since the first court-martial was Col. Du Paty de Clam's commentary on the documents of the *dossier*, and this Gen. Mercier confessed that he had destroyed. Gen. Billot, though at times his belief had been shaken, M. Cavaignac, in spite of his having been duped by the Henry forgery, Gen. Zurlinden also, and Gen. Chanoine, the successive Ministers of War after Gen. Mercier, were as convinced as he was that Dreyfus was guilty. M. Cavaignac especially, who had taken office with no bias against the prisoner, and had

studied all the evidence conscientiously, and Gen. Roget and Major Cuignet, who had made an independent examination, were the most completely convinced as well as the most thoroughly versed in the case against Dreyfus. M. Cavainac was ready to believe that Dreyfus had sent the information even if Esterhazy had written the *bordereau* or sworn that he wrote it, because Dreyfus alone could have gathered these facts in the different bureaus with which he was connected. All the officers who had been in the Ministry of War had the same conviction of the guilt of the accused, based on technical grounds and on knowledge of his character and habits. Of new evidence not much of importance was brought forward. A man deposed that he had seen a newspaper in the palace at Potsdam with a marginal note that Dreyfus was arrested written by Emperor Wilhelm; a groom that he had driven Dreyfus in company with German officers to the German manœuvres. German officers had spoken his name in a Berlin restaurant. An Austrian adventurer was introduced toward the close of the trial, who said that some diplomatic agents had spoken at length of his treason in a Swiss summer resort. An Italian lady had offered to prove the guilt of Dreyfus. This gave the counsel of Dreyfus, who saw that the case was going against them, an opportunity to ask, since the prosecution had invoked the testimony of a foreigner, that Col. Von Schwarzkoppen and Col. Panizzardi be invited to testify, permission having been requested of the German Emperor and the King of Italy; but the court refused to accept their evidence if it were offered. Col. Du Paty de Clam was very ill, and could not appear. Major Esterhazy refused to come from London, although promised immunity from arrest. Gen. Roget declared that he could not have written the *bordereau*, because he was never employed by the intelligence department; and the denials of the Italian and German *attachés* seemed to him quibbling and equivocal. An officer proved that Dreyfus had drawn mobilization maps, and knew the dispositions of the covering troops when they were not known at the time the *bordereau* was written even to corps commanders. Gen. Mercier introduced a startling piece of evidence against the prisoner, consisting of a letter from Col. Schneider, the Austrian military *attaché* in Paris, stating his conviction that Dreyfus was in relation with the German confidential bureaus in Strasburg and Brussels. Col. Schneider at first denounced this as a forgery, but it appeared that the forgery consisted in putting a date on his memorandum and making it falsely appear as a report. Col. Picquart deposed that a German spy, Richard Cuers, had said that they had but one French officer in their pay, a major, and described Esterhazy. Henry went with others to Switzerland to question him further, but would not let him say what he was willing to reveal. It was Col. Henry and his underlings who had blocked all his investigations concerning Esterhazy. It came out subsequently that Henry was in Esterhazy's debt, and that they had relations with one another extending over many years. M. Bertulus, a magistrate well acquainted with Henry, endeavored to show that the latter was a traitor, recounting an interview in which he betrayed guilt and a fear of arrest. The theory of the defense was that Esterhazy had written the *bordereau* and communicated with the foreign agent, but that Henry had supplied the documents and information from the general staff. Handwriting experts maintained that

Dreyfus did not write the *bordereau*; some had changed their opinion since 1894, and now attributed it to Esterhazy; others retained their original impression. M. Bertillon offered a cryptographic theory that Dreyfus had written the *bordereau* by tracing the words over a keyboard, so that if it were discovered it would appear to be a forgery and himself the victim of a conspiracy; and that Esterhazy had since the conviction of Dreyfus been studying to imitate the writing in the *bordereau* so as to pass for its author. Statements of the Italian minister, Count Tornielli, that Dreyfus was unknown to Italian agents, and of Col. Panizzardi that the German *attaché* had assured him that he had no relations with Dreyfus, but had been in communication with and received documents from Major Esterhazy, were placed in evidence, and an admission of Col. Von Schwarzkoppen that he had sent many telegram cards to Esterhazy, and perhaps the *petit bleu* of the *dossier*, were offered in evidence. The military judges gave little attention to the evidence against Esterhazy, except perhaps as an accomplice of Dreyfus. The confession of Dreyfus, as related by Capt. Lebrun-Renaud and corroborated by statements made before his death by Capt. d'Attel, who had overheard the conversation, influenced their decision, but most of all they were impressed by the weight of the technical evidence against Dreyfus and the overwhelming preponderance of professional opinion in the army as to his guilt. His own demeanor during the trial, his failure to rebut much of the damaging evidence, although acute enough in seizing upon points that told in his favor and wary in clinging to his preconcerted line of defense, did not prepossess the judges in his favor. The verdict was given on Sept. 9. He was found guilty by a vote of 5 to 2, but a majority of the court found extenuating circumstances, and his sentence was therefore ten years' detention in a fortress. The years already spent in Cayenne reduced the term by half, and the remainder of the sentence was afterward canceled by President Loubet on the ground of the prisoner's precarious state of health.

The trial of the leaders of the League of Patriots, the Anti-Semitic League, and the royalist party for high treason, which was begun before the Senate, sitting as the High Court of Justice, on Sept. 18, brought out evidence of an understanding between the various revolutionary factions and an organized attempt to stir up street riots and seduce the army, with a view to overthrowing the Government. Paul Déroulède and Marcel Habert, while aiming avowedly at a plebiscitary republic, conspired with Orleanists to bring about a *coup d'état*, and Jules Guérin, the Anti-Semitic leader, received royalist subventions. Dubuc, the head of the Anti-Semitic Youth, organized the revolutionary movement in the provinces. Godefroy, president of the Royalist Youth League, and André Buffet, the accredited representative of the Duke of Orleans, sought to buy the support of labor syndicates and associations not only in Paris, but all over France, as well as the secret aid of the Anti-Semites. The duke himself directed the conspiracy, furnished funds for the seditious demonstrations that became incessant toward the end of 1898, and prepared to enter France when the propitious moment arrived. The presidential election passed off so quickly that it forestalled the revolutionary movement; but the entry of the President into Paris, the funeral of M. Faure, and the various stages of the revision trial were made the oc-

casion of successive efforts to stir up an insurrection. The police arrested about 60 persons just before the attempt on the life of M. Labori, and seized documents proving a vast network of conspiracy in Paris and the provinces, and connecting the pretender and his agents with the Nationalist and Anti-Semitic leaders. Many of the arrested persons were released, and the following, some of whom had fled beyond the border, were finally indicted and tried before the Senate on the charge of engaging in a plot to destroy or change the Government: André Buffet, Hippolyte de Chevilly, Gaston de Monicourt, Raoul Pujol, Eugène Godefroy, Charles de Pontevès de Sabran, Pierre Gixou, Amédée de Ghaïsne, De Bournemont, Fernand de Ramel, Moisson de Vaux, Eugène de Lur-Sabuces, Paul Déroulède, Marcel Habert, Georges Thiebaut, Achilles Bailières, Ernest Barillier, Jules Guérin, Édouard Dubuc, Édouard Brunet, Louis Davout, and Jean Girard.

Political Crisis.—President Faure died on Feb. 16, 1899, and the National Assembly was convoked for the election of his successor on Feb. 18. The political leagues were at this time disturbing the public mind by their agitation against a revision of the Dreyfus verdict, which was before the Court of Cassation. When the two Chambers met in Congress Paul Déroulède and some of his political followers attempted to deliver harangues, but speech making and motions were, as on former occasions, forcibly repressed. The Anti-Semites, Boulangists, Clericals, royalists, and revolutionaries who were leagued together in the campaign against a retrial of Dreyfus opposed the candidature of Emile Loubet, who as president of the Senate occupied the chair at the opening of the Congress. M. Méline, the most serious opponent of M. Loubet, withdrew his name, and M. Dupuy also declined to oppose the president of the Senate, who was elected on the first ballot by 483 votes, against 279 cast for M. Méline, with 50 scattering votes given to M. Cavaignac, M. Deschanel, and others. Déroulède and his friends continued in the streets their demonstrations against the President-elect, whose leaning toward radicalism brought about his resignation of the premiership in 1888, the Panama scandal furnishing the occasion, although his honor remained unsmirched. Several hundred noisy vagabonds were arrested. The direct agents of the pretenders were not concerned in these tumults. The Duke of Orleans had made a profession of Anti-Semitic principles, but had not advanced his cause thereby. His cousin, Prince Henry of Orleans, was preferred by many of the royalists. The Bonapartists likewise were divided between Prince Victor, who had prudently refused to give a pronouncement on the Dreyfus case, and his brother, Prince Louis Bonaparte, who was a Russian general. President Loubet in his message to the Chamber expressed his confidence that difficulties would be overcome with calmness and patriotism, and that France would respect equally the Chambers, which freely discuss the laws, the magistracy, which applies them, the Government, which insures their execution, and the army, which protects the integrity and independence of the fatherland and is the faithful guardian of its honor and its laws. The Chambers were occupied with the revision bill, transferring the decision on the Dreyfus appeal from the criminal chamber to the whole Court of Cassation, which passed the Senate on March 1 by a majority of 27. Of the disturbers arrested on the day of M. Loubet's election and on that of M. Faure's funeral, 250 were fined for

seditionous cries, but were pardoned on March 14, just after Paul Déroulède's arrest for his theatrical attempt to start a military insurrection. Documents containing plans for a royalist uprising were seized by the police. The publication of the Dreyfus dossier led to the resignation of M. De Freycinet on May 6 and the transfer of M. Krantz to the Ministry of War. M. Monestier succeeded the latter as Minister of Public Works. On May 18 the postmen of Paris went on strike, and those of other towns did the same, the reason being that an increase of salary provided in the budget had been stricken out by the Senate. The Government had the mails delivered by soldiers, and this brought the strike to an end at once. The Chamber, in opposition to the Government, insisted, on May 29, by 427 votes to 118, on the increase in the postmen's pay. The judgment of the Court of Cassation in favor of a new trial for Capt. Dreyfus was followed by seditious demonstrations against the President of the republic at the Auteuil race course, in consequence of which the Government closed certain aristocratic clubs. Baron Fernand de Christiani, who attempted to strike the President, was afterward sentenced to four years' imprisonment for assault on a magistrate in the discharge of his functions.

The Government determined to have enough police at Longchamp races, which the President was also invited to attend, to prevent a recurrence of disorder, and therefore turned out 30,000 troops and police to preserve order. At the race course there were cheers for M. Loubet. The Socialists gave proof of their republicanism by treating roughly some royalists who spoke ill of the President and by parading noisily the streets of Paris, with the result that the police tried to repress their demonstrations in favor of the President, and arrested persons who shouted for the republic. This led to interpellations in the Chamber. M. Dupuy, who with his colleagues was ready to turn over the Government to other hands, would not accept the simple order of the day, but demanded an express vote of confidence. A resolution was carried on June 12, by 321 votes to 173, declaring that the Chamber would only support a government determined on energetically defending republican institutions and maintaining public order. The ministers immediately resigned. Socialists and Radicals, Moderate Republicans, Nationalists, Anti-Semites, Boulangists, and royalists made up the majority, the Extreme Right and the Extreme Left uniting to upset Charles Dupuy as they had upset cabinets before.

M. Poincaré first undertook the task of forming a new Cabinet, which was to be one of Republican union, retaining M. Delcassé and some of the other ministers of M. Dupuy's Cabinet. M. Waldeck-Rousseau, whom the President of the republic next called upon by the advice of the presidents of the two Chambers, proposed to reduce to discipline the generals and colonels who were trying to influence the judgment of the Dreyfus court-martial; but M. Krantz, who was asked to take a portfolio, would not agree to this, and M. Waldeck-Rousseau was therefore unable to bring about the combination. After M. Léon Bourgeois had declined, he attempted a new one, and at last got together a ministry like no other of the 39 that the republic has had during the twenty-nine years of its existence. The Moderates and Radicals have several times tried to work together in a ministry of concentration. This one, however, called into existence by the Dreyfus crisis and the threatening

attitude of enemies of the parliamentary republic, was composed of as many elements as the majority that overturned the late Cabinet. Besides representatives of the Progressive and the Radical wings of the Republican party, two Socialists accepted portfolios, and the Ministry of War was confided to a retired general who was formerly a monarchist, and who incurred the lasting hostility of the Socialists by his energetic action in the suppression of the Paris commune. The new Cabinet was constituted on June 22 as follows: Prime Minister and Minister of the Interior, M. Waldeck-Rousseau; Minister of War, Gen. the Marquis De Gallifet; Minister of Marine, M. De Lanessan; Minister of Justice, M. Monis; Minister of Foreign Affairs, M. Delcassé; Minister of Commerce, M. Millerand; Minister of Finance, M. Caillaux; Minister of Education, Georges Leygues; Minister of Public Works, Pierre Baudin; Minister of the Colonies, M. Decrais; Minister of Agriculture, Jean Dupuy. The new Government was formed, in accordance with the vote of the Chamber, for the defense of the republic. The Premier issued as Minister of the Interior a circular to the prefects directing them to report any act affecting respect for existing institutions or public order, and enjoining them to take immediate action, if necessary, on their own responsibility. The Minister of War wrote to the corps commanders that he would hold them responsible for what happened in their corps, and ordered disciplinary measures against refractory officers. The Minister of Justice dismissed prosecuting officers who had shown partiality to the prisoners in recent state trials. The ministry was subjected at the reassembling of the Chamber, on June 26, to a flood of invective and insult, but came out of the ordeal with a majority of 26 votes. The advent of Socialists into the governing circle was marked by a decree carrying out recommendations of the Labor Committee of the Chamber that the Chamber had not yet voted on, stipulating for all workmen employed on public contracts the current local wages as a minimum, fixed hours of work, a weekly holiday, and a limitation of the number of foreigners employed. The Chambers were prorogued on July 3.

On Aug. 12 the police were instructed to arrest Paul Déroulède; André Buffet and M. De Monicourt, agents of the Duke of Orleans; Jules Guérin, a leader in the Anti-Semitic League; Georges Thiébaud, a Boulangist; the Deputy Marcel-Habert; and fifteen other persons. The seizure of documents effected after M. Déroulède's previous arrest had shown that a plot had existed since July, 1898, to seize the Government by force. A watch was kept by the police over the persons implicated, and evidence was obtained that they were preparing a fresh attempt as the Dreyfus trial drew near its end. When M. Guérin and a band of friends shut themselves up in the offices of the Anti-Semitic League the Government refused to risk the lives of policemen or soldiers, and waited till they capitulated. Members of the Association of Royalist Youth and of the League of Patriots were arrested in the provinces. The police investigations showed that the Duke of Orleans had gone to Brussels, and was ready to enter France at the time of Félix Faure's funeral if the disturbances attempted at that time had resulted in the expected civil commotion. Although M. Déroulède derided the idea of his connection with the royalists and Bonapartists, they acted as though he were one of them. Of M. Guérin's relations with the Orleanists proofs were obtained. During the siege

in the Rue de Chabrol street conflicts were provoked by Anti-Semites and Nationalists in various parts of the city. These demonstrations prompted the anarchists, led by Sebastian Faure, to hold an open-air meeting on Aug. 20 as a protest against anti-Semitism and in favor of social emancipation. Anti-Semites and royalists assembled at the same place for a counter-demonstration. The rival mobs came to blows with each other, and both with the police when these attempted to check disorder and seditious cries, and with the republican guards, who finally cleared the square. The anarchists then marched through the streets, stoning churches, one of which they entered and partly wrecked. The police and the cavalry had to charge into the crowd several times before the vandalism was stopped. The number of persons injured was 380, including 61 policemen, and the number arrested was 150, of whom 80 were detained in custody.

Foreign Affairs.—After the Fashoda incident was settled to the satisfaction of England by the evacuation of the post that Major Marchand had established on the Nile the English Government reopened the controversy regarding British commercial rights in Madagascar. When a French protectorate was declared over Madagascar the British acquiescence was obtained by the renunciation of French extraterritorial rights in Zanzibar, and was combined also with the delimitation of the French sphere on the upper Niger. The French Minister of Foreign Affairs gave the assurance at that time that the commercial rights obtained for British merchants by treaties with the Malagasy Government would not be affected. After the second Madagascar expedition, the result of the military operations being the capture of Antananarivo and the submission of the Hova Queen, Madagascar was annexed by France, and the French Government took the view, well established in international law, that the treaties of the extinguished sovereignty became null and void. The British Government, however, relying on the assurances of the French Government that treaty rights would remain undisturbed, raised a protest when the French tariff was applied in Madagascar.

The Madagascar question was raised by England at a time when, on the urgent demand of the Newfoundlanders, the British Government preferred a request for the renunciation of fishing rights on the French treaty shore of Newfoundland. The right to fish on the northeast and west coasts and to dry their fish on the shore was reserved to the French in the Treaty of Utrecht, by which the island of Newfoundland was ceded to England in 1713. The right included permission to erect temporary huts and stages usual and necessary for the drying and curing of fish, but not the privilege of wintering on the coast or of erecting fortifications. By the Treaty of Paris in 1763 these fishing rights were confirmed, and the islands of St. Pierre and Miquelon were ceded to France as a shelter for her fishermen and for the convenience of the fishery. By the Treaty of Versailles in 1763 these islands were ceded unreservedly, and, to prevent quarrels between French and British fishermen, the limits of the French treaty shore were fixed. Beginning at Cape John, on the northeast coast, it extends round by the north and down the west coast to Cape Ray, at the southwest extremity. The fishery intended to be preserved was the cod fishery. The 12,000 native fishermen who live on the French foreshore have long been at enmity with the French fishermen

who have prior rights to the shore fisheries, and when the cod began to grow scarce their jealousy led them to induce the fishermen on the south shore to refuse longer to sell to the Frenchmen herring for bait. The canning of lobsters was taken up by the French in 1889, although the Newfoundlanders protested, and have continued to protest, that the right to establish canneries is not included in the original treaty rights. The French are charged with arbitrarily preventing the building of railroads or the development of mining and other industries on their shore, and Miquelon, where no English consular agent is allowed to reside, is said to be a nest of smugglers. A royal commission reported that the French cod fishing rights on the treaty coast are now valueless, and should be extinguished by a cash payment or by concessions elsewhere; that the lobster industry is on the decline, and should be settled on the same basis; that the colony should give the French free bait if they will abandon their bounties to the cod fishers, which expire in July, 1901, and are declared to be useless for the promotion of naval enlistment; that no French interference with the development of the treaty coast should longer be tolerated; and that a consular agent should be appointed to St. Pierre.

Another question between France and England arose in connection with the lease for one year to France by the Imam of Muscat of the harbor of Bandar Jisseh, five miles from Muscat. The concession was made in March, 1898, but it was not until the beginning of 1899 that the British agent knew of it. The Indian Government at once protested. The harbor is landlocked, about as large as Muscat, having an island at the entrance capable of being strongly fortified. The British Government objected that the treaty of 1862 precluded either France or England from accepting a cession or lease of Muscat territory, and would only agree to the French having a coaling depot at Muscat itself on the same terms as the English have. Before the French and English governments entered into conversation on the subject a British cruiser on Feb. 11 presented an ultimatum to the Sultan of Oman to prevent the cession, and under a threat of bombardment the Sultan revoked his grant of a coal depot at Bandar Jisseh, which the English feared France might convert into a fortified post. The French Government disclaimed the intention or the right of raising the French flag or erecting fortifications on the leased ground, and expressed complete satisfaction with an arrangement giving France a depot at Muscat.

FREE CHURCHES, EVANGELICAL, FEDERATION OF. The Free Church Handbook for 1899 contains comparative tables of the provision of sittings in churches of the Established Church and in those of the nonconformist denominations, and of the number of communicants recorded by the Episcopal and the nonconformist churches in England and Wales, the numbers of the nonconformist communicants being shown by denominations severally and footed up. From the face of these tables it appears that the Established Church provides 6,886,977 sittings, while the nonconformist churches have total sitting accommodations for 7,848,804 persons; and that the whole number of communicants is in the Established Church 1,886,059, and in the nonconformist or free churches 1,897,175. Besides these, a number of large congregations, it is claimed, should be accounted for which are not connected with any particular body, but which are distinctly nonconformist. The net gain

during the year was represented to be 47,526 communicants in the Evangelical Free Churches, and 45,708 in the Established Church. It is estimated by the editor of the Yearbook, Mr. Howard Evans, that the ordinary income of the free churches in England and Wales is more than £5,000,000, and that the value of their church property exceeds £50,000,000.

The fifth annual meeting of the National Council of Evangelical Free Churches was held in Liverpool, beginning March 14. The opening sermon, preached by the Rev. John Clifford, D.D., had for its subject *The Crisis in the Church: Its Place in the Development of British Religion*. The Rev. Alexander Mackennal, D.D., presided, and delivered an address setting forth the objects of the federation movement. The report of the secretary represented that the work of the federation was growing so rapidly that it was difficult to keep the record of it within bounds. Ninety-nine new councils had been organized in 25 English counties since the meeting in Bristol in the previous year, with 13 new councils in North Wales and 5 in South Wales; and Ireland had joined the movement, with councils in Dublin, Belfast, and Cork. The number of district federations had grown from 20 to 31; the reports from these federations bore strong witness to their value in helping the local councils and bringing the whole strength of a district to the support of weak points. They were doing good work in scattering literature, promoting lantern lectures, and keeping a vigilant eye on the education question and cases of persecution of dissenters. Missions, house-to-house visitation, district interchange of pulpits, mass open-air meetings in the summer months, and other work were also carried on by the federations. The federation movement was extending itself to all parts of the English-speaking world. In South Africa a Cape Town and District Evangelical Council had been formed; the word "free," it was observed, having been dropped from the title, as all churches are free in Cape Colony. Councils were being rapidly formed in the United States and Canada. Many councils had been organized in Australia, and large quantities of federation literature were circulated there. A union of evangelical churches had been formed in Jamaica. Evangelical ministers in Norway were taking a deep interest in the movement, and would probably adopt it. United missions which had been held under the auspices of the federation had produced such results of spiritual revival that the General Committee had been considering the advisability of employing more men specially called of God for this work. It was further proposed to hold a great simultaneous mission in England and Wales as early as possible in 1901. Many councils had adopted, with the best results, house-to-house visitation on the parochial system. Two hundred and fifty boxes, with nearly 7,000 volumes, constituting the circulating library, had been sent out to councils. A resolution adopted by the council respecting the crisis in the Church of England, while expressing joy at the signs of quickened spiritual life in the national Church, deplored the widespread adoption and inculcation of certain defined ideas and practices by members of the clergy; protested against the determination of clergymen to undo the work of the Reformation; and urged Parliament to do its utmost to maintain its own authority, and to safeguard the Protestantism of the realm. "Seeing the difficulty the state had in controlling the clergy of the Established Church, the council was convinced that there is no final and effective

method of terminating the spread of Romanism within and by the Anglican Church except by abolishing the connection between the Church and the state, thus setting the Church free for the management of its own affairs, and delivering the state from the burden of duties it can not adequately discharge." The council therefore appealed to its members and to the evangelical party in the Anglican Church "to support a policy of justice and freedom, in the interest of religion, sound Protestantism, good government, and the well-being of the nation." Another resolution related to the provision of means whereby nonconformists in the army and navy other than Presbyterians and Wesleyan Methodists, who already have special services, may enjoy nonconformist ministrations. A resolution was enthusiastically adopted which contemplated advising all Free Church parents to withdraw their children from Church of England schools where ritualistic practices and sacerdotalistic teachings exist, and requesting the Government "to provide proper accommodation for the primary education of their children until popular control is secured for all state-aided schools." Other resolutions expressed satisfaction at the Czar's call for a conference on disarmament, and approved of the Free Church celebration of the three hundredth anniversary of the birth of Oliver Cromwell. Replying to a criticism of the Free Church Catechism, in which the speaker denied that it had the sanction of the council, the Rev. Dr. Mackennal (president of the council) said that the matter was one that lay entirely within the initiative of the committee. The catechism went out on the responsibility of the committee and the special committee, and the council was only asked to accept the measured responsibility implied by sympathy with the object, without indorsing every detail of the document.

The Free Church Catechism.—The following catechism, intended to cover the points of religious faith on which all the Free Evangelical Churches are agreed, and to be acceptable to them all for common use, was published by a committee of the National Council of England and Wales at the beginning of the year. The work of preparing the catechism had been undertaken two years previously, when the Rev. Dr. Oswald Dykes, principal of the English Presbyterian College, was requested to draw up a draft catechism, to be revised by successive committees appointed by the council of the federation. The committee of final revision consisted of 5 ministers and members of the Congregational churches, 5 of the Wesleyan Methodist Church, 3 of the Baptist churches, 2 of the Primitive Methodist Church, 2 of the Presbyterian Church, and 1 each of the Methodist New Connection, Bible Christian, and United Methodist Free Churches. Every question and every answer in the catechism was finally adopted by the committee without a dissenting vote. It is not pretended that the document carries any authority, it being designed only for optional use:

1. Question. What is the Christian religion? Answer. It is the religion founded by our Lord and Saviour Jesus Christ, who has brought to us the full knowledge of God and of eternal life.

2. Q. How must we think of God? A. God is the one eternal Spirit, Creator, and Sustainer of all things; he is Love, boundless in wisdom and power, perfect in holiness and justice, in mercy and truth.

3. Q. By what name has Jesus taught us to call God? A. Our Father in heaven.

4. Q. What do we learn from this name of

Father? A. We learn that God made us in his own image, that he cares for us by his wise providence, and that he loves us far better than any earthly parent can.

5. Q. What does Jesus say about himself? A. That he is the Son of God, whom the Father in his great love sent into the world to be our Saviour from sin.

6. Q. What is sin? A. Sin is any thought or feeling, word or act, which either is contrary to God's holy law or falls short of what it requires.

7. Q. Say in brief what God's law requires. A. That we should love God with our whole heart, and our neighbor as ourselves.

8. Q. Are we able of ourselves to do this? A. No; for, although man was made innocent at the first, yet he fell into disobedience, and since then no one has been able, in his own strength, to keep God's law.

9. Q. What are the consequences of sin? A. Sin separates man from God, corrupts his nature, exposes him to manifold pains and griefs, and, unless he repents, must issue in death eternal.

10. Q. Can we deliver ourselves from sin and its consequences? A. By no means; for we are unable either to cleanse our own hearts or to make amends for our offenses.

11. Q. How did the Son of God save his people from their sins? A. For our salvation he came down from heaven, and was incarnate by the Holy Ghost of the Virgin Mary, and was made man, and was crucified also for us under Pontius Pilate. He suffered and was buried, and the third day he rose again according to the Scriptures, and ascended into heaven, and sitteth on the right hand of the Father.

12. Q. What benefit have we from the Son of God becoming man? A. We have a Mediator between God and men; one who as God reveals to us what God is; and, as perfect Man, represents our race before God.

13. Q. What further benefits have we from our Lord's life on earth? A. We have in him a brother man who is touched with the feeling of our infirmities, as well as perfect example of what we ought to be.

14. Q. What did he accomplish for us by his death on the cross? A. By offering himself a sacrifice without blemish unto God he fulfilled the requirements of divine holiness, atoned for all our sins, and broke the power of sin.

15. Q. What does the resurrection of Jesus teach us? A. It assures us that he has finished the work of our redemption; that the dominion of death is ended; and that, because he lives, we shall live also.

16. Q. What do we learn from his ascension into heaven? A. That we have in him an advocate with the Father, who ever liveth to make intercession for us.

17. Q. What do we learn from his session at the right hand of God? A. That he is exalted as our Head and King, to whom has been given all authority in heaven and on earth.

18. Q. How does Jesus Christ still carry on his work of salvation? A. By the third person in the blessed Trinity, the Holy Spirit, who was sent forth at Pentecost.

19. Q. What is the mystery of the blessed Trinity? A. That the Father, the Son, and the Holy Spirit, into whose name we are baptized, are one God.

20. Q. What must we do in order to be saved? A. We must repent of our sin and believe on the Lord Jesus Christ.

21. Q. What is it to repent? A. He who truly repents of his sin not only confesses it with shame

and sorrow, but above all he turns from it to God with sincere desire to be forgiven and steadfast purpose to sin no more.

22. Q. What is it to believe on the Lord Jesus Christ? A. It means that we rely on him as our Teacher, Saviour, and Lord, putting our whole trust in the grace of God through him.

23. Q. How are we enabled to repent and believe? A. By the secret power of the Holy Spirit working graciously in our hearts, and using for this end providential discipline and the message of the Gospel.

24. Q. What benefits do we receive when we repent and believe? A. Being united to Christ by faith, our sins are freely forgiven for his sake; our hearts are renewed, and we become children of God and joint heirs with Christ.

25. Q. In what way are we to show ourselves thankful for such great benefits? A. By striving to follow the example of Jesus in doing and bearing the will of our heavenly Father.

26. Q. Where do we find God's will briefly expressed? A. In the Decalogue, or law of the Ten Commandments, as explained by Jesus Christ.

27. Q. Repeat the Ten Commandments. A. (Repetition of the Commandments.)

28. Q. How has our Lord taught us to understand this law? A. He taught that the law reaches to the desires, motives, and intentions of the heart, so that we can not keep it unless we love God with our whole heart and our neighbor as ourselves.

29. Q. What special means has God provided to assist us in leading a life of obedience? A. His word, prayer, the sacraments, and the fellowship of the Church.

30. Q. Where do we find God's word written? A. In the Holy Bible, which is the inspired record of God's revelation given to be our rule of faith and duty.

31. Q. What is prayer? A. In prayer we commune with our Father in heaven, confess our sins, give him thanks for all his benefits, and ask, in the name of Jesus, for such things as he has promised.

32. Q. Repeat the Lord's Prayer. A. (Repetition of the prayer.)

33. Q. What is the Holy Catholic Church? A. It is that holy society of believers in Christ Jesus which he founded, of which he is the only head, and in which he dwells by his Spirit; so that, though made up of many communions, organized in various modes, and scattered throughout the world, it is yet one in him.

34. Q. For what ends did our Lord found his Church? A. He united his people into this visible brotherhood for the worship of God and the ministry of the Word and the sacraments; for mutual edification, the administration of discipline, and the advancement of his kingdom.

35. Q. What is the essential mark of a true branch of the Catholic Church? A. The essential mark of a true branch of the Catholic Church is the presence of Christ, through his indwelling Spirit, manifested in holy life and fellowship.

36. Q. What is a free Church? A. A Church which acknowledges none but Jesus Christ as head, and therefore exercises its right to interpret and administer his laws without restraint or control by the state.

37. Q. What is the duty of the Church to the state? A. To observe all the laws of the state unless contrary to the teaching of Christ; to make intercession for the people, and particularly for those in authority; to teach both rulers and subjects the eternal principles of righteousness, and to imbue the nation with the spirit of Christ.

38. Q. What is the duty of the state to the Church? A. To protect all branches of the Church and their individual members in the enjoyment of liberty to worship God, and in efforts to promote the religion of Christ, which do not interfere with the civil rights of others.

39. Q. What is a Christian minister? A. A Christian minister is one who is called of God and the Church to be a teacher of the Word and a pastor of the flock of Christ.

40. Q. How may the validity of such a ministry be proved? A. The decisive proof of a valid ministry is the sanction of the divine head of the Church, manifested in the conversion of sinners and the edification of the body of Christ.

41. Q. What are the sacraments of the Church? A. Sacred rites instituted by our Lord Jesus to make more plain by visible signs the inward benefits of the Gospel, to assure us of his promised grace, and, when rightly used, to become a means to convey it to our hearts.

42. Q. How many sacraments are there? A. Two only: Baptism and the Lord's Supper.

43. Q. What is the visible sign in the sacrament of baptism? A. Water: wherein the person is baptized into the name of the Father and of the Son and of the Holy Spirit.

44. Q. What inward benefits does this signify? A. The washing away of sin and the new birth wrought by the Holy Spirit in all who repent and believe.

45. Q. What are the outward signs in the Lord's Supper? A. Bread and wine: which the Lord has commanded to be given and received for a perpetual memorial of his death.

46. Q. What is signified by the bread and wine? A. By the bread is signified the body of our Lord Jesus Christ in which he lived and died; by the wine is signified his blood, shed once for all upon the cross for the remission of sins.

47. Q. What do they receive who in penitence and faith partake of this sacrament? A. They feed spiritually upon Christ as the nourishment of the soul, by which they are strengthened and refreshed for the duties and trials of life.

48. Q. Why do Christians partake in common of the Lord's Supper? A. To show their oneness in Christ, to confess openly their faith in him, and to give one another a pledge of brotherly love.

49. Q. What is a Christian's chief comfort in this life? A. That in Christ he belongs to God, who makes all things work together for good to them that love him.

50. Q. What hope have we in the prospect of death? A. We are well assured that all who fall asleep in Christ are with him in rest and peace; and that even as he rose from the dead, so shall we also rise and be clothed with glorified bodies.

51. Q. What has Jesus told us of his second advent? A. That at a time known only to God he shall appear again with power, to be glorified in his saints and to be the judge of all mankind, and that for his appearing we should be always ready.

52. Q. What is the Christian's hope concerning the future state? A. We look for the life everlasting, wherein all who are saved through Christ shall see God and inherit the kingdom prepared for them from the foundation of the world.

FRIENDS. Statistics.—The statistical returns of the Society of Friends for 1898, published in January, 1899, show that the number connected with it throughout the world was 113,877, as compared with 112,413 in 1897. The gain, 1,464, was about 1.30 per cent. The chief gain (1,301) was in the United States, where the mem-

bership now stood at 93,699. The whole number of Friends in Great Britain and its colonies and the Continent of Europe was 20,178, indicating a net gain for the year of 163. The society included 14 yearly meetings on the American continent, 2 in Great Britain, 5 on the Continent of Europe, and 6 in Australasia, with mission stations in every quarter of the globe. The whole number of recognized ministers of the Gospel was 1,648. The foreign-mission stations returned an aggregate native membership of 1,860, with 104 Bible schools having a total attendance of 5,102.

The statistical tables for 1899, published in January, 1900, gave the whole number of Friends throughout the world as 113,580. The yearly meetings of the United Kingdom returned 20,379 members. The total number of recognized meetings for worship was 1,334, and of ministers of the Gospel 1,604, together with 1,234 Bible schools, attended by 101,258 persons. The Quaker mission schools for colored persons returned 3,585 members, with 8,305 persons attending 308 Bible schools.

The Friends' Foreign Missionary Association of London Yearly Meeting has in the foreign-mission field 79 missionaries and 235 native preachers, teachers, and Bible women, 187 churches and 2,639 members in Madagascar, 49 organized Friends' churches in the other missions, and a total of 14,297 adherents. Aside from Madagascar, 159 members were added by confession during 1898, 11 boarding and high schools and 247 other schools returned 20,187 persons under instruction, and 30,063 patients were treated in the hospitals. Fifty-four of the accessions of members, or nearly 33 per cent. of the whole number, were from the schools. The total expense of carrying on the work during 1898 was £20,621. Industrial training was associated with the missionary work in India, and 750 orphans in that country were under the care of Friends. In China 5 persons were received into membership. The mission in Madagascar is carried on in connection with the work of the London Missionary Society.

American Friends.—The 14 American yearly meetings returned at the end of 1899 a total of 93,253 members, against 93,699 in the previous year, showing for the first time in several years a loss—446. The number of ministers was 1,279. The missionary reports of the American Friends give 284 principal and subordinate mission stations in foreign countries, with a native membership of 3,585, not counting the 612 Indians who are members or the 550 Mexican Friends. One hundred and fifty-eight Friends are engaged in foreign-mission work, with 8,305 persons enrolled in 308 Bible schools. The foreign-mission work of the American Orthodox Friends was begun in 1871 in Mexico. These Friends have now 16 stations in 8 different countries, including Alaska, with 31 substations. In these fields 13 men and 38 women missionaries are employed, with 85 native helpers, and they return in all 1,279 members, 117 of whom were received last year, besides 2,938 nonmember attendants of the meetings, 1,795 pupils in Bible schools, and 1,454 pupils in boarding and day schools. The contributions last year from all sources for the support of this work aggregated \$41,499, an average of about 45 cents a member. Fifty-two hundred and seventy-five patients were treated at the hospitals. Fourteen of the American and 7 of the native missionaries are recorded ministers. All the 14 Orthodox yearly meetings take part in this work.

A committee of two members from each of the yearly meetings was appointed at a conference

of American Friends held in Indianapolis, Ind., in 1897, to formulate a plan for a closer union of the yearly meetings, and to prepare a discipline to be submitted to them for approval. A draft of a discipline was made, submitted for criticism and suggestions, and has been published previous to submission to the yearly meetings for final action. It differs in many features from the old Discipline, omitting much of the historical matter and the advice, and contains a statement of belief which, though brief, is believed to include everything fundamental to the Christian religion as Friends interpret it. One of the purposes governing the draft has been to rid the yearly meetings of "useless machinery and formal perfunctory exercises, and make for life and peace." Changes are made in the names of the meetings, and the quinquennial conference, which has been introduced as a voluntary assembly, is adopted and called the Five Years' Meeting.

The Five-year Education Conference of Friends in America was held in Providence, R. I., in June. It was attended by Friends from all the American yearly meetings except Canada, Oregon, and California, and by three Friends from London Yearly Meeting. A number of subjects relating to religion and education were discussed, and the opinions of the meeting were embodied in resolutions urging upon the schools and colleges the importance of endeavoring to give students a clearer knowledge of the doctrines and government of the society, and to lead them into the practice of true worship; defining as the most effective means to that end the strong spiritual personality of the teachers; exhorting Friends to fidelity to the spiritual realities of the Gospel, to "fearless reception of truth from whatever source it may come," and to a more faithful endeavor to meet the needs of the age by the use of all the instrumentalities, spiritual and temporal, which God is placing within reach; and advising that Friends should present the Bible attractively to their children in the home, and that more adequate provision should be made for rendering the biblical instruction given in the schools and colleges "second to no other teaching which they offer."

Friends in Mexico.—The first Friends' meeting of Spanish-speaking people was organized in Matamoras, Mexico, in 1875, by Samuel H. Purdy and H. M. Bimford. The work has increased till it includes 10 monthly meetings in Mexico, into which more than 1,000 members have been received, with several thousand adherents. Schools have been established and a Spanish Protestant literature has been created. The various yearly-meeting committees own property valued at \$20,000 in gold, and other new buildings are contemplated. Through removals from these stations Friends have been scattered throughout southern Texas and northern Mexico. A native ministry has been raised up, and a yearly meeting has been established at Victoria.

The Cuban Evangelical Church.—The Cuban Evangelical Church has been organized at Havana, with the intention of establishing a national church, "which, deriving inspiration from the doctrines and discipline of the old Puritans, should worship the Lord in spirit and in truth." It was in its first organization independent of any religious denomination and sustained by the individual effort of all the brethren composing it. Having adopted Quaker forms in baptism, the Lord's Supper, government, and ministry, it, by the act of its quarterly meeting, entered into correspondence in June with the Friends' Society in Mexico, announcing its organization and ac-

ceptance of the rule of faith, discipline, and doctrines of the Friends' Church; its desire to live by its own efforts, its members promising to defray the salaries of its pastors and the expenses arising from its mission work; and asking for religious literature in Spanish. An executive body had been organized, with Francisco G. Cala, a recorded minister, as presiding clerk, and Angel Serrato as secretary. The Church had, at the time of the writing of this letter, a pastor, 3 other ministers, 2 established meetings, 86 members, 2 Sabbath schools with between 260 and 300 attendants, 2 day schools with about 300 pupils, and 1 orphanage.

The United Fruit Company having purchased 100,000 acres of land near Santiago, and having witnessed the work of Friends in Jamaica, has invited them to engage in a missionary enterprise in that district. The whole Spanish-American work has been taken in charge by the American Friends' Board of Missions, with Iowa, Western, Wilmington, and Indiana Yearly Meetings co-operating.

British Friends.—The statistics of membership presented to the Meeting for Ministry and Oversight of the London Yearly Meeting showed a total in Great Britain of 17,031, an increase during the year of 179, or a little more than 1 per cent. The "habitual attenders," or nonmembers, attending the meetings numbered 7,904, an increase of 428, while an aggregate of about 50,000 persons attended the adult schools and mission meetings. Two hundred and four persons had joined the society "by conviction" or from the outside.

The Meeting for Ministry and Oversight of the London Yearly Meeting considered the subject of the state of the meetings as to vocal ministry and earnest exercise of spirit on the part of the congregations, and also that of the conditions of right development and effective exercise of the ministry. A large committee was appointed to draw up a letter on the latter subject to the various congregations throughout the country.

The sessions of the London Yearly Meeting opened May 24. A considerable part of the time was spent in the discussion of the ministry, in regard to which a wide desire prevails in the society for improvement in quality; not so much that more intellectual sermons were demanded, as that "a more living message is sought and a wider grasp of truth on the part of those who feel themselves called upon to speak." Yet the meeting was not ready for the institution of a regular ministry or for the payment of ministers, and was careful not to approve the steps in these directions that have been taken by some of the American yearly meetings. The Home Mission Committee reported on its policy of inviting applications from men and women who feel it "laid upon them" to devote themselves to missionary work of this kind, and providing for the maintenance of those persons who were selected who had such a purpose in view. Between 20 and 30 workers were now employed in different towns and villages, at a total cost of a little more

than £3,000 a year. The committee were, however, not a unit upon this policy, some thinking they could see in it the beginning of a "hired" ministry.

The Home Mission Committee presented a report upon means of bringing about a closer association between the society and the "attenders" at Friends' meetings, as well as with the members of the adult and other First-Day schools—the number in the former category being estimated at about 7,000, and those in the latter at about 45,000—a subject which had been referred to it two years previously. The report showed that there had been an increase in the number of "convincements," or of persons joining the society from outside, from an average of 73 a year in the period 1862-'66 to 275 in the period 1893-'98, and a concomitant increase in the number of habitual attenders at the ordinary meetings from 3,000 to the present number. Various arrangements had been adopted in different meetings for drawing the attenders into closer fellowship with one another and with the society. In some places, as in London, the object was accomplished by a kind of preliminary membership, forming a stepping stone to full rights in the society. In other places, among which was Birmingham, "Christian societies" were formed of those who regularly attended the Sunday-evening mission meetings; but they seemed to satisfy the need for church life, and did not lead on to any fuller association with the Society of Friends. In other meetings, as at Norwich, where congregational life was exceptionally active, nothing seemed needed between the adult school membership and full membership in the society. The committee recommended that congregational life and initiative be strengthened by giving more importance to the congregational church meeting, or "preparative meeting," which has hitherto been wholly subordinate to the monthly meeting. Attenders might find a place in the work of a congregation which they could not find in the monthly meeting, to which members only were admitted. It recommended further that localities be encouraged to find ways, either by preliminary membership or by some scheme of affiliation, for forming links between the various local mission societies and the main body; also that wherever possible a regular Friends' meeting should be established in each center of mission work, and so held as to be attractive and educative to those who are brought under the influence of the mission. The report was approved by the meeting. A minute was adopted expressing the sense of the meeting of the inconsistency of war "with the precepts of Christ and the whole spirit of his Gospel," and as to the enormous evils attending the military system and "the practices inseparably connected with warfare"; commending the peace congress called by the Czar of Russia to assemble at The Hague, and hoping for the success of its deliberations; and beseeching all Christian people to use their influence in favor of the principles upheld by the resolution.

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GEOGRAPHICAL PROGRESS. While no great discoveries have distinguished the geographical work of the year, explorers have been active, especially in Africa and in the polar regions of the north and south. Many of the expeditions in Africa were primarily for political purposes,

but they have added something to geographical knowledge, corrected some errors, and filled some gaps. Probably the greatest interest among geographers at present is in antarctic exploration, which promises to be undertaken soon by the proposed German and English expeditions.

Arctic Regions.—Nothing definite or satisfactory has come from Prof. S. A. Andrée, who set out for the pole on a balloon voyage July 11, 1897. (See *Annual Cyclopædia* for 1897, page 336.) A small cork case was found in Norway in June, 1899, containing a slip of paper signed "Andrée," saying that all was well, but by the date it appeared that it must have been thrown out only eight hours after his departure. In April, 1898, a report came from a mail carrier in Alaska saying that one of his carrier pigeons had been found, with a message to the effect that he was on land in northern Alaska, but this seems to have been a fraudulent report. In January, 1899, came another statement that a heap of ropes and other material had been seen on an inaccessible ice floe between Iceland and Greenland in July, 1898, which might have been the wreck of the balloon. Still another unauthenticated report came from Siberia, where the wreck of a balloon and the bodies of three men were said to have been found in January, 1899. A buoy found Sept. 11, 1899, on the north side of King Charles island, northeast of Spitzbergen, 80° latitude and 25° east longitude, was opened at Stockholm, Oct. 2. It was found that the buoy was the so-called "north pole buoy" which the explorer was to have dropped when passing the north pole. A later telegram says: "At the examination of the buoy Capt. Svedenborg, who was present at the ascent of the balloon, said that the ring of the buoy did not seem to be made fast. The buoy, therefore, could not have been let down by means of a cord. It was then opened. First of all the copper cover fixed to the rim underneath the buoy was sawed off, and some sea sand fell out. A copper head with a tube of the same material attached was then taken out. Inside this was some water. The copper tube was then sawed off. In the lower part of the tube was an India-rubber plug, and on it a little sand. Inside the tube was a coating which seemed to resemble paper, but which a microscopical examination showed to be the growth of algæ. Prof. Nathorst declared that the buoy could not have been carried from the pole to King Charles island. Capt. Svedenborg expressed the opinion that the buoy had been thrown out empty. Prof. Montelius said it had not been shown that the buoy had been thrown out empty. The upper part was not further unscrewed. Prof. Nordenskjöld said that a search would be made next year at King Charles island."

A dispatch from St. Petersburg in October gave an account of a scheme to send to the frozen seas one of Russia's new ice-breaking steamers, the *Yermak*, to force a way through the ice. "On the *Yermak*'s first voyage she encountered drift ice in the Baltic. This ice was about 5 feet thick, and there was not the slightest difficulty in getting the *Yermak* through this obstruction, as she went comparatively easy at 9 knots, the engines working slowly. Before going into the ice the vessel had been slowed down to 10 knots, so as to reserve the powers of the engine-room staff for the harder work which was to come. The worst piece of ice encountered was estimated at 25 feet thick, and the ship went nearly through this formidable obstruction before she was brought up by it. The greatest depth of field ice reported by Dr. Nansen is 12 feet."

Dr. A. G. Nathorst led an expedition to eastern Greenland to search for Andrée, but found no traces of him. Some valuable observations were made. The Franz Josef fiord was found to be quite different from its representation on the German map, as far as the interior of the fiord is

concerned, the outer part being in the main as given on the map. It narrows instead of widening toward the inner end, which lies 2° of longitude farther east than the map indicates. It is thus much smaller than it is represented, and the Petermann spitze is probably only two thirds as high as Payer supposed. The southern branch of the fiord east of Payer spitze, found to be a sound, and named the Antarctic Sound, from the name of the vessel, led to a hitherto unknown fiord, very large, which was called King Oscar's fiord. It stretches southward to Davy Sound, and sends two branches eastward, connecting it with the sea. On the western side it sends two branches into the interior; of these, the southern divides into two branchlets, the northern into three. They extend nearly as far west as the interior of Franz Josef fiord. The fiords were mapped, as was also the interior of Hurry inlet.

Walter Wellman, who made an attempt to reach the north pole in 1894, set out again in June, 1898, with a more carefully prepared expedition. He returned this year, reaching Tromsø Aug. 17, 1899, on the steamer *Capella*. The party, in which were a scientific staff and a number of Norwegians, reached Franz Josef Land July 27, 1898. Three days later they were at Cape Tegethoff, latitude 80°, on the coast of Hall island, in the eastern section of the group, where they landed and put up a house for winter quarters, called Harnsworth House, and here the main party wintered. But an expedition was made as far north as 81°, and an outpost was established there. A house was built of rocks and roofed with walrus hides, to which they gave the name Fort McKinley. This was on Wilczek Land. Two Norwegians—Paul Björvig and Bert Bentzen, the latter of whom had been with Nansen in the *Fram*—were left there, while the main party returned to Cape Tegethoff. In February Mr. Wellman went northward with 3 Norwegians and 45 dogs, and reached Fort McKinley Feb. 28. Here he found that Bert Bentzen had died two months before, and during all that time his companion, who had made a compact with him that if either should die the survivor would not bury him till help came, had kept the body beside himself in the little house. He said he had managed to keep up his spirits by reciting Ibsen's poetry.

"Pushing northward through rough ice and severe storms, with a continuous temperature of ten days between 40° and 50° below zero, the party found new lands north of Freedom island, where Nansen landed in 1895. By the middle of March all were confident of reaching latitude 87° or 88°, if not the pole itself. Then began a succession of disasters. Mr. Wellman, while leading the party, fell into a snow-covered crevasse, seriously injuring one of his legs and compelling a retreat. Two days later the party was aroused at midnight by an icequake under them, due to pressure. In a few moments many dogs were crushed and the sledges destroyed. The members of the expedition narrowly escaped with their lives, though they managed to save their sleeping bags and some dogs and provisions. Mr. Wellman's condition became alarming, and the Norwegians dragged him on a sledge, by forced marches, nearly 200 miles to headquarters. After reaching headquarters other members of the expedition explored regions hitherto unknown, and important scientific work was done by Lieut. Evelyn B. Baldwin, of the United States Weather Bureau; Dr. Edward Hofman, of Grand Haven, Mich.; and A. Harlan, of the United States Coast Survey. The expedition killed 14 bears and many walruses."

"In his quest for information and search for rare mammals Mr. Stone was very successful. Leaving here in July, 1897, he went up the Stickeen river into the Laird river country. While he was there his native guides deserted him, and he was left alone in the midst of the Hell Gate Indians, who endeavored to steal his outfit. He stopped on the way down Mackenzie river to traverse a large area of the Rockies in the vicinity of the arctic circle. From Fort McPherson, the Hudson Bay Company's most northern trading post, he again crossed the Rockies, went down the delta of the Mackenzie river, and traveled west along the arctic coast to Hereshall island. Later he explored the Mackenzie delta thoroughly, thence reaching Yukon by way of the Porcupine river."

Explorations have been made in Iceland by F. W. W. Howell, who made the first crossing of the Lang Jökull this autumn with his party, two of whom were from Merton College, Oxford, and two Icelanders of Reykjavik. Dr. Thoroddsen has completed his explorations in Iceland, which have extended over many years.

Antarctic Regions.—The Belgian expedition to the antarctic returned in March, 1899, having left Antwerp Aug. 16, 1897. The following is from an account given to a representative of Reuter's agency by Dr. Arctowski, geologist of the party:

"The Belgian expedition entered the antarctic circle from the opposite direction to that in which the British expedition under Mr. Borchgrevinck is now working, Lieut. Gerlache with the Belgica going via Cape Horn and the South Shetland Islands, while the British expedition started from Hobart for Victoria Land. Dr. Arctowski said their first object was to make a voyage in the antarctic, but beyond this there was on starting no definite programme. It was intended to examine the various scientific conditions. On leaving Staten their object was to go direct to the south and to explore in the region of Grahamsland and Palmer Land, on which no landing had been made since their discovery in the early part of the century. On Feb. 13, four weeks after leaving Staten island, they left the newly discovered land which they had named Danco Land, and in three days sighted Alexander I Land. On the 28th the Belgica ran into the antarctic ice pack. The temperature fell, and the Belgica stuck fast. For a whole year she remained immovable, and for the first time human beings prepared to spend a winter in the antarctic. They had expected to winter in the south polar region, but they had hoped to do so on land. They were, however, unable to find land on which to establish a depot, and had to remain on the ship. They spent the winter in scientific work. All of them suffered a good deal during the antarctic night, owing to defective circulation and heart trouble. All pulled through except Lieut. Danco, who succumbed to heart failure in June of last year, and his remains were buried beneath the ice. The only other member of the expedition to lose his life was Carl Wiencke, a Norwegian sailor, who was lost overboard between Staten island and the antarctic. At the beginning of the present year they began to cut a channel through the ice for the Belgica, and after much hard work they cut a passage 900 metres in length. Unlike the arctic, the antarctic has no land animals. The only signs of life they found on land were very small insects, which were discovered among the penguin rookeries. In the water there was plenty of life. There were far more seals than in the north polar regions, a great quantity of small whales,

and an abundance of penguins. The antarctic land they found to be entirely mountainous, absolutely glaciated, covered with snow and ice. In some places where the cliffs were too precipitous for ice and snow to lodge were found lichen and moss."

The British expedition under Borchgrevinck, mentioned above, was organized by Sir George Newnes, and sailed in *The Southern Cross* for Cape Adare in December, 1898. Terrific storms were encountered. Three of the party ascended the glacier to a height of 700 metres. At the foot of the mountain they discovered a great vein of quartz, presumably containing gold. In February the ship returned to Australia.

A German expedition for deep-sea exploration on board the *Valdivia*, under the leadership of Prof. Chun, returned from antarctic waters April 30, having left Cape Town Nov. 13, 1898. The following paragraph from the official report gives an idea of the general results of the soundings:

"The great depths encountered since leaving Bouvet island [the *Valdivia* passed along the edge of the ice to a point near Enderby Land] must be looked upon as one of the most surprising results of the expedition. Of the 17 soundings taken on the southward voyage, no less than 11 showed depths between 2,700 and 3,300 fathoms, and only 1—in the immediate neighborhood of Bouvet island—was under 1,700 fathoms. This series of soundings, the first of such completeness in antarctic waters, very greatly modifies our conceptions of the form of the ocean bed in the far south. Only 15 soundings had previously been made south of 50° south; the *Valdivia* added 29, and showed that, instead of being a relatively shallow basin, the southern ocean is of very great depth. In one respect, indeed, the great depths did not lend themselves to the carrying out of the plans of the expedition. Twelve hours are necessary to make a successful haul of the dredge at depths approaching 3,000 fathoms—a very long time in the uncertain weather of these latitudes, where a sudden change might mean loss of gear and danger to life." The ocean floor between Enderby Land and Kerguelen is deeply furrowed, depths of 1,300 fathoms alternating with those of 2,000 to 3,000 fathoms.

Bouvet island, one of three sighted by Bouvet, Lindsay, and Norris, is described: "The sharp outline of a steep island clothed in antarctic ice and desolation showed clear about 7 nautical miles distant. The first impression of this land, which had remained unseen for seventy-five years, and eluded three expeditions, was that of a steep and lofty slope on the west and north, on which a magnificent glacier descended to sea level, and a vast snow field above sinking gently to the south and ending with an ice wall at the sea; the summit of the island was covered with clouds. The island fell steeply to the sea, and at a distance of 3 to 4 nautical miles depths of 200 to 300 fathoms were found, in which 5 hauls of the dredge were made with the result of an extraordinarily rich collection of animal life. Every group of marine organisms, except fishes and stalked crinoids, was represented. The center of Bouvet island is in latitude 54° 26.4' south and longitude 3° 24.2' east. Its length from west to east is 5.1 nautical miles, and from north to south 4.3. A photograph shows a wide, sharply indented crater wall sloping gently to the sea on the south and east. The other sides are much steeper, the northeast cape being a prominent cliff. The highest point of the rim of the crater (3,067 feet) was named Kaiser Wilhelm peak; the northernmost of the 5 projecting angles of the

island was named Cape Valdivia. The whole island is covered with one vast glacier, which reaches sea level on the gently sloping southern and eastern sides, where it forms an ice wall 400 feet high. Both Bouvet and Lindsay had reported trees on the island, but no trace of vegetation could be seen from the Valdivia. Animal life also seemed to be extremely sparse. Cape pigeons were the most abundant birds; other antarctic forms were not common. It is noteworthy that the white petrel, deemed by Ross the surest sign of the proximity of ice, was first seen by us while cruising off Bouvet island." Fragments of granite, gneiss, and schist were found, which had been broken off and brought away by icebergs.

Two important expeditions are to undertake the exploration of antarctic regions. They are to be sent out simultaneously by England and Germany. In an address at the International Geographical Congress at Berlin, in September, Sir Clements Markham, President of the Royal Geographical Society of London, outlined the geographical work that will be before the expeditions. He considered the region as divided into four quadrants—two on the Australasian side and two on the Cape Horn and Cape of Good Hope side. The first quadrant, from 90° east to 180°, includes Victoria Land, and he gave it the name Victoria. It presents for examination, he says, Adelie and Sabrina Lands, supposed to form the coast of a continuous continent. Besides this question is the one whether the land from Cape Adare, in 71° 18' south, to Cape Washington, in 74° 37' south, is continuous with the Victoria Land of Mounts Erebus and Terror, or whether it is an island. The second quadrant, 180° to 90° west, he calls the Ross quadrant, since Cook and Ross alone have penetrated it beyond the seventieth parallel. It contains the continuation of the ice barrier, and a principal aim of the expedition would be to ascertain its extent and the outline of the continental land on the Pacific side. The third quadrant, from 90° west to the meridian of Greenwich, includes the winter quarters of Gerlache, islands seen by Bellingshausen, Biscoe, and Larsen, and the part of the southern ocean in which Weddell penetrated to 74° 15' south. This Weddell quadrant "invites discoveries of peculiar interest, including the southern side of Graham Land if it proves to be an island, and still more valuable discoveries if it is found to be a promontory extending from continental land." The fourth quadrant, from the meridian of Greenwich to 90° east, is the least known. In it the seventieth parallel never has been crossed, and distant land on the antarctic circle has only been sighted—namely, Enderby Land and Kemp Land. This he calls the Enderby quadrant, though he suggests that it might receive the name Valdivia, after the German ship mentioned above, which sailed along near Enderby Land in 1899. This quadrant was entered by Biscoe in 1831, when he discovered Enderby Land. Capt. Cook just crossed the antarctic circle in 1773, as did Moore in 1845 at nearly the same place, and the Challenger in 1874. All to the south of the antarctic circle in this quadrant is absolutely unknown. It is suggested that two of these four divisions—the Weddell and Enderby—might be taken for the work of the German expedition, and the other two for the English.

The English Government declined to undertake the enterprise, and funds amounting at that time to £40,000 had been raised by subscription; of this, £25,000 was given by Llewellyn W. Longstaff, a fellow of the Royal Geographical Society, and the Government afterward decided to grant

sums equal to those raised by private subscription up to £45,000.

America.—Several expeditions for exploring Alaska have been sent out by United States authorities—four by the geological survey and two by the army authorities. The Coast and Geodetic Survey examined the Yukon delta, finding a depth of water in one of the southern channels, heretofore little known, sufficient to allow the passage of ocean vessels.

Near the close of 1898 the discovery was reported of a mountain more than 20,000 feet high—therefore higher than St. Elias—on the right bank of the Suchitna river, in Alaska. The leader of the party from the Geological Survey making the discovery, G. H. Eldredge, proposed to call it Bulshae, a word spoken in exclamation by the Indian guide when he first saw the peak.

The volcanoes of the eastern Aleutian Islands are spoken of by Mr. J. Stanley-Brown as presenting an interesting field for exploration. Mount Shishaldin, on Umnak island, is a splendid snowy peak, nearly 9,000 feet high, now in a state of gentle eruption. Another mountain on the same island has about the same size and has a crater. On Akutan island is also an active volcano, and other partially active ones are in the vicinity.

Dr. Francisco P. Moreno, who began exploring the Andean regions of the Argentine Republic in 1882, has continued his work almost without intermission since that time. From 1882 to 1895 he explored the region from parallel 23° to 34°; in 1896 he returned to Patagonia by the slopes of the Cordillera and the interior to Lake Buenos Ayres, in 40° 30'. In 1897 his work was in the Patagonian region between the Straits of Magellan and parallel 51°, and in examination of several of the western firds as far as Puerto Montt, in latitude 42°. In 1898 he ascended the Santa Cruz river for the second time, and traversed the territory along the eastern slopes as far as Lake Nahuel-Huapi and Puerto Montt. In a paper read before the Royal Geographical Society in May, 1899, he gave results of his observations, illustrated by very beautiful photographs. He says that Patagonia does not merit its bad reputation; that it has a vast field worthy of active effort, and a healthy soil capable of supporting a large population. Noting the correspondences between the configuration of North America and that of South America, he says that the broken plains and the plateaus of New Mexico and Arizona find their analogy in the Argentine northern plateaus and in the table-lands of Patagonia; that "the ice-bound plains of Canada find modest companions in the extreme south, and the picturesque firds and white mountains of Alaska" are copied in those of Patagonia. He describes the lakes along the eastern side of the great mountain axis in a depression parallel to the Cordillera. Some of these lakes discharge their waters into "the monotonous Atlantic rivers; others reach the Pacific in impetuous torrents, which cut through the whole mass of the Cordillera." He says: "This phenomenon of a dividing line of waters flowing into opposite oceans, which partly rise in plains and glens hardly higher than the level of the sea, and which overcome such formidable obstacles as the Andean Cordillera, piercing its crystalline axis and the enormous mass of rocks that have accumulated upon this axis, constitutes, in my opinion, a fact which is unique in the world." This longitudinal depression contains the most fertile lands of Patagonia. The Government is constructing a railway, starting from the port of San An-

tonio, which is on the Gulf of San Matias, in the northeastern part of Patagonia, and running westward to the Pacific. In June it will be opened as far as the junction of the Limay and Neuguen rivers with the Negro on its way to Nahuel-Huapi, the most lovely lake in South America. Surveys and plans are making for irrigation works, that will easily change the desert aspect of a large portion of the country. Dr. Moreno has charge of the museum at La Plata, the establishment of which is due to him. (See engraving in Annual Cyclopaedia for 1898, page 19.)

The first report of the second Princeton expedition to Patagonia was published in November,

Other travelers in this region were Oscar von Fischer and Franz Steeger, engineers sent by the Chilean Government to open a road from the valley of the Cochamo by the upper course of the Manso to the Valle Nuevo. Three passes were explored, two in the region of perpetual snow, the other, the one most suitable for the road, covered with snow in winter.

News has been received of the discovery by Dr. Steffen of three large rivers flowing into Baker channel on the western coast of Patagonia, the largest of which, called Rio Baker, he ascended about 45 miles, when a waterfall stopped navigation. An affluent was ascended and found to be the outlet of Lake Cochrane. The

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1898. The expedition explored the country inland and northward 800 miles from the Straits of Magellan, adding much to our knowledge of the geography of the country, and discovering at the base of the Andes a beautiful lake 30 miles in length, not previously reported, which might be called Lake Princeton. In addition to considerable collections of the arts and manufactures of the tribes inhabiting these regions, a splendid series of photographs was secured and a fairly complete dictionary of the Yahgan language compiled. The chief work of the expedition was geological.

Dr. Paul Krttger, in a recent expedition to Chilean Patagonia, discovered that the Futaleufu river, which he found in 1898 not to be connected with the Corcovado, as had been supposed, is identical with the Yelcho, a great river having a large delta with many channels and a very rapid upper course.

other rivers were called Rio Bravo and Rio de la Pascua. The former seems to be fed from glaciers on Mount Cochrane.

The expedition to survey the Pilcomayo was, it is reported, massacred by Indians of the Chaco, on the borders of the Argentine Republic and Paraguay. This region has been peculiarly disastrous to explorers seeking the sources of the river. A Buenos Ayres paper of Dec. 8, 1897, said: "Misfortune and disaster have overtaken all those who have had the temerity to approach the Pilcomayo and lay hands upon the mysterious veil that hides its sources from view; in witness thereof are the bleached bones of the ill-fated Crevaux expedition, the fatal ending of Capt. Page, and the nonsuccess of Fontana, Storm, and others. Under the shadows of these somber precedents the intrepid explorer Ramon Lista organized an expedition, and started for the mysterious region round which cling so many

fatal memories. He has paid the penalty of his intrepidity, and the Cerberus that guards the mysterious region of the Pilcomayo has devoured another victim. According to a telegram received by Mr. Francisco Segui, President of the Geographical Society, Ramon Lista lost his way in the woodlands of Miraflores, and after wander-

date from Roman times, by others from the fifteenth century. In the course of ages this had become choked, and when the waters of the lake rose after rains the land surrounding it was turned into a pestilential swamp. In 1875 there was an unusual deluge of rain, and the movement for a drainage canal was begun soon afterward;

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ing during five days, perished from thirst. Two men who accompanied him were saved."

A letter from Georgetown to the London Times says: "The award of the international tribunal appointed under the treaty of Washington to delimit the boundary between British Guiana and Venezuela has given unqualified satisfaction throughout the colony. It is recognized that England has gained by having the dispute referred to arbitration, and that, had Venezuela accepted Great Britain's offer, she would have gained more territory than the Paris tribunal has awarded her. The boundary, as fixed by the tribunal, practically follows the Schomburgk line."

Europe.—Lake Trasimene, in central Italy, which for centuries has been a source of disease by reason of having no adequate outlet, is now drained by a canal completed in March, 1898, and formally opened Sept. 27 of the same year. The lake, which is about 50 square miles in extent, and surrounded by hills with olive groves and castles, had no discharge for its waters except an artificial channel, supposed by some to

but it was not until 1896 that the work was actually begun. At the lake end the canal is 800 feet above sea level and 30 feet wide, with sloping sides, discharging into a trapezoidal basin 48 feet long. It is carried under the hill and village of San Savino del Lago by a tunnel more than 3,000 feet long. The waters are finally turned into the little river Caina, a tributary of the Tiber. With the lake kept at the level intended, 2,470 acres of arable land will be reclaimed. The work cost 658,565 Italian lire.

Recent bathymetrical surveys of the Italian lakes show that Como is the deepest, its maximum depth being 1,345 feet; that of Maggiore is 1,220; Garda, 1,134; Lugano, 944; Isso, 820. Como is only surpassed in Europe by Hornisdalsvand, 1,593 feet, and Mjøsen, 1,476 feet, in Norway.

Asia. A journey across central Asia has been made by German travelers for the first time. Prof. Fütterer and Dr. Holderer arrived at Shanghai in February, having been seven months on the route. They brought with them fine zoölogical and geological collections.

The upper valley of the Yarkand has been vis-

ited by Capt. Deasy, who has explored a territory only in part examined heretofore by Russian and English travelers. Although provided with a passport from Chinese authorities, Capt. Deasy found his progress so obstructed that part of his proposed route had to be abandoned.

A Dutch missionary, Mr. Rijuhart, who was stationed in Tibet, undertook a journey to Lhasa, accompanied by his wife and their infant son. It ended disastrously, the child having died from the hardships of the journey and the party having been attacked by Tibetans. The men fled, leaving Mr. Rijuhart and his family alone. He recrossed a river they had just passed to obtain assistance, as there were tents on the opposite bank, but did not return. His wife waited several days, and then made her way with great difficulty to Chinese territory, uncertain whether Mr. Rijuhart was dead or a prisoner.

In 1898 Mr. Gaedertz, a German engineer, made a journey in the Chinese province of Shantung. From the temple-crowned summit of the Yo-Shan a sea of mountains could be seen southward. It is proposed to construct a railway through the region traversed by Mr. Gaedertz, who was engaged by a Hamburg syndicate to examine the proposed route. There are large towns on the route. Chau-Tsun is a city of 50,000 inhabitants, and the center of the silk trade of the province. Po-Shan is in the coal district, and has pottery, glass, and iron works.

Mount Kinabalu, in North Borneo, was ascended in April by H. T. Burls, who gives the height as 12,043 feet. In crevices of the rock on the summit small pellucid quartz crystals were found, and Mr. Burls conjectured that large specimens of the kind had given rise to the legend that there was a great diamond at the top, guarded by a dragon, which had devoured so many Chinamen in search of the diamond that the mountain received the name Kina Balu, meaning "Chinese widow."

Mr. R. P. Cobbold returned in the spring from a thirteen months' journey in the Pamirs, during which he was arrested and detained for three weeks by the Russians, and finally escorted by Cossacks across the Chinese frontier. Mr. Cobbold visited several districts never before explored by Englishmen.

K. T. Stoepel ascended the main northern peak of Mount Morrison, in Formosa, in December, 1898. The mountain group is called in Japanese Niitakayama—"the new high mountain"—but by the natives Pataquan.

Africa.—The agreement between France and England defining the spheres of interest of the two powers in eastern Africa draws, according to the London Times of March 23, "a line running roughly north and south, and pledges England not to acquire either territory or political influence west of this line, and France not to acquire them to the east of it. The line begins on the northern frontier of the Congo State at the watershed of the Congo and the Nile, and follows that watershed to 11° north. From this point to 15° north it is to be traced by a mixed commission between Darfur and Wadai, leaving the former to England and the latter to France. The northern section of the line is traced in the French note from north to south, instead of being continued from the northern frontier of Darfur. It is described as beginning at the intersection of the sixteenth degree east of Greenwich with the tropic of Cancer, a point near the southern frontier of Tripoli. It is to be drawn southeast until it cuts the twenty-fourth degree east of Greenwich, and it is then to follow that de-

gree until it reaches the northern border of Darfur. A glance at the map will show that by this arrangement the whole of the Bahr-el-Ghazal and all the old provinces of Egypt west of the Nile fall within the British sphere—that is, we hold free from French pretensions for the future the entire basin of the upper Nile right up to the great lakes. That is the result which we have sought to obtain throughout the negotiations, and we appear to have obtained it in the amplest way. The report of Sir William Garstin on the portions of this territory immediately south of Khartoum will cause neither surprise nor disappointment to those who have taken the pains to make themselves moderately acquainted with previous accounts of this part of the Soudan. The country about the White Nile is for a great distance a pestilential swamp, and it may be doubted whether even the genius and perseverance of the Anglo-Egyptian engineers will be able to improve it materially within a generation. Beyond the points which he reached lie other portions of the Soudan of a less unpromising character, but, speaking generally, Sir William Garstin is probably not far wrong when he says that at present it can be of no practical advantage to a civilized power if by practical advantage material advantage is intended. But it was not for the sake of material advantages that we were determined to acquire the upper part of the Nile basin. Political and military considerations of an imperative kind gave us no choice in the matter. 'The Nile is Egypt, and Egypt is the Nile,' and it was vital to us as the trustees of Egypt to hold the Nile from the sea to the great lakes."

This gives England a continuous line through eastern Africa, except for that part south of the equator where the Congo State and the German possessions meet. An agreement has been made by which Germany grants to the African Transcontinental Telegraph Company the right to carry across its territory the line intended to connect Cape Town with Cairo.

The railway to Khartoum was to be ready for travel in December. The line through East Africa from north to south can now be carried, like the telegraph, mainly through British territory.

A German steamer has been sent to Lake Tanganyika.

In connection with the agreement concerning Samoa some doubtful boundaries in Africa were settled, given as follows: "Further articles of the agreement provide for the demarcation of the frontier in the *Hinterland* of German Togoland and the British Gold Coast colony, and for the renunciation of German extraterritorial rights in Zanzibar, to take effect when other nations have also given up their extraterritorial rights in that dependency. The neutral zone of Salaga in West Africa has been a bone of contention between Germany and England since the square block of territory was provisionally declared neutral in 1888. The agreement now arrived at appears to secure for England the largest slice of the zone and the territory of Gambaga north of it."

Mr. W. Willcocks wrote from Cairo Sept. 18: "Egypt is experiencing one of the worst floods of the century, and that branch of the river which leaves the great equatorial lakes seems to have failed completely. This branch (let us call it the White Nile) is completely closed by the *sudd*, and the waters are wandering over the immense swamps which stretch from latitude 7° to latitude 10°. The failure of this supply in the summer of 1900 will be serious." He says the waters that leave the great lakes are estimated

never to fall below 18,000 cubic feet a second, while the discharge at Assuan, in spite of the additions of surface and subsoil waters from the Gazelle, the Sobat, the Blue Nile, and the Atbara, has within the past twenty-five years twice fallen as low as 7,000 cubic feet a second. After passing Lado the White Nile splits up into numerous branches, which lose themselves in the swamps. The swamps vanquish the Nile.

The work of building a great Nile reservoir above Assuan, to which the consent of the Khedive was obtained in 1898, was begun Feb. 12, 1899, when the corner stone was laid. It will be more than a mile long and 80 feet wide at the base, and the top will be 90 feet above low-water mark. It will be pierced with 180 sluices for the regulation of the waters, and will raise the level of the river for 140 miles above the first cataract. The reservoir will be done, it is estimated, in two years, but subsidiary works will be required before the whole plan is carried out. A large area will be added to the productive lands of lower Egypt.

Capt. Wellby, who is exploring eastern Africa in the vicinity of Lake Rudolf, has found that the Oms flows into that lake, and a small river called Ruzi flows into the stream called Juba. He traveled north about midway between the lake and the Nile through a fine wooded country abounding in game. The Turkana were found to be a fine race, many of them approaching 7 feet in height. They wear their hair in a matted mass hanging down the back to the waist, and carry in it their tobacco and various small articles—presumably in the hair bag, such as is worn by some other African tribes.

Mount Kenia was ascended this year by Mr. H. J. Mackinder, reader in geography at Oxford. The summit was reached at the third attempt, and was found to be more than 17,000 feet high. Fifteen glaciers, two very large, were discovered. The height of the mountain has been estimated at 19,000 feet.

Col. J. R. L. Macdonald was in command of an exploring expedition that left England in June, 1897, for operations in the neighborhood of Uganda. The work had to be abandoned for nine months when the Uganda protectorate was threatened by the revolt of the Soudanese troops, and the whole strength of the expedition was turned in to the support of the Government. In May, 1898, after the loss of 33 per cent. of the Europeans, 60 per cent. of the escort, 43 per cent. in transport, and 15 per cent. in Swahilis, the expedition was reorganized. Meantime some work had been done in Uganda toward rectifying and filling out the maps. Lake Choga was found to be much larger than had been supposed and to be one of the minor reservoirs of the Nile. A large lake—Mpologoma—was heard of, but not visited, east of Choga. Major H. H. Austin had charge of a column to explore the vicinity of Lake Rudolf. Col. Macdonald advanced with another column into Karamoja, west of Lake Rudolf and the unknown regions beyond, which were a blank on the map. Mount Debasien is described as a magnificent rocky mountain rising to several well-marked peaks, the highest of which is 9,700 feet above the sea. Mount Moroto rises 10,000 feet.

The Karamoja people are of great stature, and have the reputation of being very warlike. Col. Macdonald says: "The women have perhaps more latitude allowed them than in most African tribes, as marriage is not merely a matter of barter. If the girl objects to marrying her suitor, her refusal is absolute and settles the matter. The

women are decently clothed in skins, but the men wear no clothing, unless the extraordinary felted head dress, which hangs low over their shoulders, is classed as clothing. A Karamoja warrior, with his felted hair bag decked with ostrich feathers, his iron collar and ivory bangles, is a very striking sight. He carries two spears, which can be used either for throwing or stabbing, a knob-kerry, and a very small, light shield made of hide. Many also wear a small circular wrist knife, with which terrible wounds can be inflicted in a rough and tumble. The cutting edges of the knife and of the spearheads are carefully protected by ingenious sheaths made of leather."

Later the explorers went to Latuka, still farther west, passing through a mountainous region with peaks rising 6,000 to 10,000 feet.

An account is given in *The Geographical Journal* of Mr. Weatherly's latest expedition to Bangweolo (or, as he says it should be, Bangweulu). He went to the Johnston falls on the Luapula, and thence to the northwest corner of Bangweulu. About 10 miles northwest of the last three rivers—the Mwampanda, the Lifubu, and the Liposori—meet in a great marsh, called Kasamba. These three rivers appear to unite in one, which flows into the lake, which, according to Mr. Weatherly's measurements, is 43½ miles long. He surveyed Lake Kampolombo 3½ to 4 miles across, which has connected with it a lakelet, Kangwena, and opposite its northern half is Chifungwe, a narrow sheet of water. On the voyage down the Luapula the explorer saw the Mumbotuta falls, which, he says, have never before been visited by a white man. "They are due to a great fault cutting the river diagonally, and the mad chaos of the foaming water, the thunder of which can be heard 8 or 9 miles on a still night, is an indescribably grand sight." The greater part of the Luapula above the Johnston falls is quite unnavigable for craft of any size, by reason either of sand banks or its shallowness and rapid current. The Johnston falls are a succession of rapids and cataracts, known to the natives as Mambilima.

Steps have been taken to preserve the inscription that was cut into the tree that marked the place where Dr. Livingston died. After the intelligence was received in London that the tree was so decayed that it must soon fall, Mr. R. Codrington was deputed to visit the site of Chitambo's village and bring away the section of the tree bearing the inscription. The journey appears to have been rather difficult. A folding boat enabled Mr. Codrington to cross the Loangwa, the Molembo, and the Lohombo. Near Chilenga he crossed the Muchinga range, the path leading to a height of 4,950 feet. The tree, which is of the kind called *mpembu*, was found to be hollow and too old to produce seeds. The inscription has been partly effaced by borers. It stands:

DR. LIVINGSTONE

MAY 4, 1873

. ZA MNIASERE
UCHOPERE

A fence was built round the stump of the tree, a space for 60 yards around was cleared, and a sealed bottle buried within the fence.

During the exploration of the Zambesi and its tributaries by the expedition under Dr. Karl

Peters ancient ruins were found by Leonard Puzey near the Muira, a southern affluent, in Portuguese territory. They consisted mainly of great circular walls, rising in places where they were least broken to a height of 12 to 15 feet. Dr. Peters says: "The whole of the ruin is built after the general ancient Semitic pattern. The cyclopean wall skirts the hill about halfway between the bottom and the top; on the top of the buildings the hoarding place and likely the temple were standing. The remains of a ground wall along the edge of the top lead me to believe that a second wall formerly ran around the platform itself. To explore the ruin properly it will be necessary to send a scientific expedition with a proper outfit for such excavations. The *débris* has to be removed, and this, I am sure, will take considerable time. Why the old conquerors chose this spot for their fort is easy to see. The Muira touches the bottom of the hill, so water was handy. A second river we have discovered at the back of the ruin. From the top they had an outlook over the wide plain before them, while they had the bulk of the Fura massive at their back. From their own fort they commanded the plain as well as the mountain. I have called the hill on which the ruin stands after its discoverer, 'Puzey Hill.'"

Besides gold, Dr. Peters claims to have discovered mica, saltpeter, and diamonds in a district practically uninhabited at an altitude of 8,000 feet, and, he believes, easily capable of cultivation. He thinks Fura and Ophir are forms of the same name, and that this may be the Ophir of Scripture.

Major Gibbons, who ascended the Zambesi, found some inaccuracies in existing maps of the region. Mr. J. E. Moore, another explorer, found the greatest depth of Lake Nyassa to be 430 fathoms. Near the junction of the Lulua and Kasai rivers Mr. Verner, an American missionary, found a series of lakes, formed by the expansion of tributary rivers. He named one Lapsley pool, after the founder of the mission, and another after United States Senator Morgan, who was United States representative in Brussels when the Congo State was recognized. Dr. Cuireau has surveyed the Nile-Congo watershed. M. Wauters has completed a map of the Congo State. Herr Von Elpons, commandant of the German station at Langenburg, ascended Mount Rungwe, the highest summit of the region northwest of Lake Nyassa, the height of which he found to be 10,200 feet.

Albert B. Lloyd, an English traveler, spent three weeks in 1898 in the forest in the heart of Africa inhabited by the pygmies described by Du Chaillu and Stanley. For the first five days he was without sight of a pygmy; but suddenly he became aware of their presence by mysterious movements among the trees, which he at first attributed to monkeys. Finally he came to a clearing and stopped at a village where there was a great number of the pygmy people. "They told me," he says, "that unknown to me they had been watching me for five days, peering through the growth of the forest. They appeared very much frightened, and even when speaking covered their faces." Such was their timidity that it was difficult to get good photographs; but Mr. Lloyd finally succeeded in obtaining a considerable number, showing the little people both singly and in groups. The measurements made by Mr. Lloyd show not one over 4 feet in height. The men have long beards, reaching halfway down the chest. "They are," adds Mr. Lloyd, "fairly intelligent. I had a long talk with

a chief, who conversed intelligently about their customs in the forest and the number of the tribesmen. Both men and women, except for a tiny strip of bark, were quite nude. The men were armed with poisoned arrows. The chief told me the tribes were nomadic, and never slept two nights in the same place." Most of these people have the normal negro features, some to an exaggerated degree, although the color is described as inclining rather to various shades of brown and red, or chocolate, than black.

The Ngoko, a western branch of Sauga river, which forms a part of the boundary between German and French territory in western Africa, was explored this year by Dr. Pleyn. The Ngoko is formed by the junction of the Bumba and the Ja, respectively 100 and 150 yards wide at the confluence. The Bumba is a swift stream, with rapids and a fall, which stopped the progress of the explorers. It is in about 2° 30' north latitude and 14° 30' east longitude. Ascending the Ja, the larger stream, Dr. Pleyn found at first a few small villages; then for four days he passed through an uninhabited country. Wooded hills bordered the river, some of them rising 2,000 feet above it. Then a lakelike expansion of the river was reached, and above it a narrow gorge with several rapids. Up to this point the stream is navigable for large river steamers. Above it not even the canoes could be used; but the river was examined to some distance above, where it again broadened to about 150 yards. Rubber abounds in the forests that cover the country, and elephants are numerous. They are hunted by wandering tribes, but the resident population is very scanty.

The Committee on Colonial Agriculture in Berlin sent a mission in charge of Herr Schlechter to West Africa to study the cultivation of the rubber plant in that region. He found that the forests where it once abounded in Lagos now show but few of the trees, and he believes that its day is over there unless measures are taken by the authorities to preserve it. He collected seeds for introduction into the Cameroons.

M. Perregaux has made explorations in Ashanti. A singular story, given in dispatches from West Africa to the French Cabinet Council, is given in the London Times of Sept. 20, 1899, an abstract of which follows: "Capt. Voulet, of the French marines, who had acted with Capt. Chanoine, a son of Gen. Chanoine, Minister of War in the Brisson Cabinet, in the Gurunsi-Mossi country in 1897, desired to explore with his former comrade the country between Say and Lake Chad assigned to France by the last agreement with England. They were authorized to undertake this expedition in July, 1898. In October they were at Jenne, in the Massina country. From this point Capt. Chanoine started to cross the region inclosed in the great bend of the river, while Capt. Voulet descended the stream by way of Timbuctoo. The parties met at Sansanne Hausa, about 90 miles above Say, early in January, and, after spending two months in reorganizing their forces, they left for Lake Chad in March. A lieutenant attached to the mission, named Peteau, lodged charges of cruelty against the officers in command with the French authorities, and a preliminary inquiry was directed. The details have not been made public, but a *prima facie* case against Capt. Voulet and Capt. Chanoine appears to have been made out to the satisfaction of the French resident and the commandant of the eastern Soudan. As a result of the inquiry, Col. Klobb was directed to proceed from Kayes, where he was then stationed, to join the

mission, take over the command, investigate the charges, and, if these were proved, to place Capt. Voulet and Capt. Chanoine under arrest. In the execution of these orders Col. Klobb, who was accompanied by a young lieutenant named Meunier and a small escort, marched to Sinder, on the Niger. On July 10 he received news of the mission, and dispatched four men of his escort with a message to its chiefs. The message was delivered on the evening of July 12, and on the following morning Capt. Voulet, according to the account of the survivors, sent the messengers back to Col. Klobb with a letter, bidding them at the same time inform the colonel that he was about to move to the next village to obtain water. Col. Klobb showed the letter to Lieut. Meunier, and at once sent a second communication to Capt. Voulet, who received it on the evening of July 13. Capt. Voulet immediately called his native noncommissioned officers together and told them that the colonel was coming to set free the prisoners he had given his men. He asked them whether they would obey the colonel or fire upon him. They said they would take their orders from the captain, and then went among their men and instructed them to fire when they got the command. Capt. Voulet sent a second letter and a third, in which he declared that he would not give up his command; that he had 600 rifles under his orders; and that he would treat his superior officer as an enemy if he continued to advance. Col. Klobb gave orders that if the mutineers fired their fire was not to be returned. When the two forces were about 150 yards apart, Capt. Voulet being the only officer present with the mutineers, he called out to Col. Klobb that he knew well enough who was before him and that there was no mistake, but that he would fire if the colonel advanced. The colonel answered that he would advance, but that in no circumstances would he fire, and he repeated his orders to this effect in the hearing of Voulet. The chief of the mutineers formed up his men and ordered them to fire three volleys and then to fire independently. Col. Klobb and Lieut. Meunier were both wounded—the latter fatally—at the first discharge. The second volley killed the colonel, but not until he had again forbidden his men to return the fire and ordered the survivors to report at the nearest French post. Capt. Voulet seems to have completed his butchery by a bayonet charge. Happily, the bush was at hand, and the native escort of the murdered officers knew how to avail themselves of it. By Aug. 3 the survivors had made their way back to Garu, on the Niger, where they were met by Lieut. Cornu, whose dispatch has just reached Paris."

The cruelties charged against Voulet and Chanoine, which led to the sending of Col. Klobb, are so horrible as to be almost past belief. Following is a part of the statement credited to an officer who had left their mission: "On Jan. 8, 1899, a native who was met by some soldiers declared that he did not know the road toward the east. He was brought before Capt. Voulet, who ordered his head to be cut off. Reconnoitering parties sent out on the night of Jan. 8 were ordered to capture his village, kill all the natives who resisted, bring away the rest as captives, and take the heads. On the morning of Jan. 9 a reconnoitering party returned to camp with 250 oxen, 500 sheep, 28 horses, and 80 prisoners. Some of the soldiers having been killed or wounded, Capt. Voulet said that an example must be made. He ordered 20 women, mothers with young children and babes, to be killed with lances at

a few hundred yards from the camp. Their bodies were afterward found by the post commander at Say. On the same day a soldier who had expended 124 cartridges in a skirmish had his brains blown out, by order of Capt. Voulet, for having wasted his ammunition. On Jan. 13 the mission burned Sansanne-Hausa, a city of 10,000 inhabitants and an active commercial center. On the 14th 3 *spahis*, a regular soldier, and 2 auxiliaries charged a native, who, in defending himself, wounded the regular. The auxiliaries, being armed only with lances, did not dare to pursue the native. For this negligence they were shot without trial as soon as they returned to camp, by order of Capt. Chanoine. An entire village was burned. At Libore, on the 17th, 2 prisoners were brought in and taken before Capt. Voulet, who ordered them to be shot. At the same time 2 soldiers brought 2 freshly cut hands to the chief of the mission. From that time forward the practice of cutting off the hands of the massacred natives became general. All the men who brought these sanguinary evidences of murder to the officers' mess table were rewarded. On the 24th Capt. Chanoine lost by surprise 6 *spahis* killed in an engagement. Pursuing the aggressors, he came across the inhabitants of a neighboring village, who had taken refuge in the brushwood. He made 20 prisoners, cut off the heads of 10 of them and had them stuck on poles. During the march of the mission Sergeant-Major Laury and some of the soldiers armed with staves struck those who did not march quickly. The carriers, recruited by chance, were in many cases old and feeble. Some fell out, and the soldiers cut off their heads. Sometimes Sergeant-Major Laury executed them himself with his revolver. All these acts were committed in a peaceful country where the inhabitants were not hostile to the mission."

A journey by M. Fournreau through the less known lands of French Congo led from Wesso, on the upper Sauga, Feb. 14, 1899, to the Gabun, June 10, through at first a sparsely populated, swampy region abounding in elephants; afterward through a wilderness, where rubber trees were abundant, and among villages of the Bakotas. They reached the divide between the Congo and Ogowé systems, examined the Mambili, an affluent of the Mossaka, the Ivindo, the Abombe, the Jadie, the Niona, and the Bokowe. M. Fournreau favors the establishment of a rapid-transit route from the Gabun either to the Sauga by way of the valley of the Jadie or to the Mossaka by way of the valley of the Mambili.

A journey across the Sahara south of Algeria was undertaken by F. Fourreau as explorer and Count Lamy as military commander, and at last accounts was proceeding successfully, though fears for its safety had been entertained. The expedition consisted of 180 Algerian soldiers, besides the officers, and carried 1,000 camels. From southern Algeria the way led by Temassinin, across the Tassili plateau, the western portion of which is 5,700 feet in height. The region is essentially volcanic. The divide between Atlantic and Mediterranean waters is 4,690 feet high. The route by way of the Air oasis, which was taken by the expedition, is said not to have been traversed before since 1849, when it was taken by Barth. At last accounts the explorers had reached Lake Chad.

Dr. F. Weisgerber has made a journey through the interior of Morocco, visiting places rarely or never seen by Europeans; and Dr. Theodor Fischer explored the valley of the Tensift river in Morocco, heretofore almost unknown.

A remarkable journey across the continent, from Loango on the west coast, in French Congo, to Jibuti on the east coast, in French Somaliland, was taken by a military expedition under Major Marchand. The route was by way of the Congo and its tributaries, then over plateau and through forest to the Sueh, an affluent of the Bahr-el-Ghazal, and down these rivers. The troubles in Fashoda interrupted the journey in July, 1898. It was resumed in December, when the Sobat was followed to the junction of the Baro and the Juba. Here the little steamer *Faidherbe*, which had been used on the rivers, was abandoned, and the remainder of the route was traveled by land through Abyssinia and Somaliland. The position of Addis Abbeba, capital of Abyssinia, was found to be farther north and farther west than the place given to it on the maps. The most important geographical work of the expedition was that in the territory of the tributaries of the Bahr-el-Ghazal.

This region was explored at about the same time by M. Liotard, Governor of the French Ubangi territory, who traversed some country hitherto unknown.

According to a communication from Lieut. Cerekel, the syllable *lu* in the names of African rivers is a shortened form of *lut*, meaning river, so that it is not properly a part of the name. It is sometimes placed before, as in Lualaba, sometimes after, as in Sanku Lu, and sometimes the full form is used, as in Chibu Lui. For small streams *ka*, a diminutive, is used instead of *lu*.

Islands.—The Samoan Islands have been assigned by agreement as follow: The two islands of Upolu and Savaii, as well as the adjacent small islands, are assigned to Germany in absolute possession; the island of Tutuila and its adjacent islands to the United States. Great Britain renounces all her rights in the Samoan Islands, and Germany renounces in favor of Great Britain all her claims to the Tonga Islands and to Savage island, and cedes also to this country the two eastern Solomon Islands of Choiseul and Isabel, with their island surroundings.

At the proclamation of the British protectorate over the Santa Cruz Islands it was found by an examination from the English ships that the island laid down on the maps as Motuiti or Kennedy had no existence; at least none at the position indicated.

General.—"The population of the world was estimated by Profs. Supan and Wagner in 1891 at 1,480,000,000. Prof. Supan estimates the present population of the earth at 1,500,000,000, or an increase of 20,000,000 in the past seven years. The population of Europe at the beginning of the Christian era, estimated at 54,000,000, was only a little more than half the present population of European Russia."

The following was published in January: "The Coast and Geodetic Survey has at last completed valuable measurements from which its corps of skilled mathematicians is shortly to determine for the first time, with any degree of accuracy, the figure and size of the earth. In other words, we are soon to learn something definite as to how large a mass the earth is, and whether it is, in truth, flattened at the poles. This tremendous feat of surveying just finished is the most extensive and valuable contribution toward the solution of these problems thus far undertaken. The survey has accurately measured in feet and inches the longest arc of the earth's curvature ever covered by measuring instruments. This line extends from Cape May, N. J., due west over the thirty-ninth parallel to the coast of northern

California, forming more than a seventh of that particular circle spanning the earth. It has required more than a quarter of a century of continuous work for the completion of the triangulation. The length of the arc having thus been actually measured in feet and inches and fractions thereof, and its curvature having been measured in degrees by astronomic work, from this length and curvature combined will be calculated, after months of most difficult computation, the actual shape and expanse of our sphere."

The seventh International Geographical Congress met at Berlin in October. Oceanography held a prominent place in the proceedings of the congress, and the papers and discussions on this subject showed what a complicated and fertile field of research it has become. A commission was nominated for the purpose of devising a nomenclature for the different features of the bed of the ocean.

One result of the discussion of antarctic exploration was the resolution that, as the proposals of the antarctic committees of the two countries form an excellent basis for plans of co-operation, a small joint committee should be formed for the purpose of arriving at a common method of work in meteorological and magnetic observations.

Another important discussion related to the map of the world on the scale of 1:1,000,000 (16 miles to the inch), which has been before the congresses of Berne and London.

It is doubtful if the resolution as to the adoption of the metric system of weights and measures and the centigrade scale for thermometers will have any result either in England or in America. One eminent geographer, Mr. J. G. Buchanan, went so far as to maintain that even from the scientific point of view the fathom and the Fahrenheit scale are far superior to the metre and the centigrade thermometer. A resolution was adopted deprecating the giving of new names to places where native names or names given by early explorers have become familiar. The attendance at the congress—members and associates, including ladies—was 1,667, of whom about 205 were foreigners in the strict sense, including Austrians.

GEORGIA, a Southern State, one of the original thirteen, ratified the Constitution Jan. 2, 1788; area, 59,475 square miles. The population, according to each decennial census, was 82,548 in 1790; 162,086 in 1800; 252,433 in 1810; 340,985 in 1820; 516,823 in 1830; 691,392 in 1840; 906,185 in 1850; 1,057,286 in 1860; 1,184,109 in 1870; 1,542,180 in 1880; and 1,927,253 in 1890. Capital, Atlanta.

Government.—The following were the State officers in 1899: Governor, Allen D. Candler; Secretary of State, Philip Cook; Treasurer, W. J. Speer; Comptroller, William A. Wright; Attorney-General, Joseph M. Terrell; State School Commissioner, G. R. Glenn; Adjutant General, J. M. Kell; Commissioner of Agriculture, O. B. Stevens; Geologist, W. S. Yeates; Chemist, J. M. McCandless; Librarian, James E. Brown; Railroad Commissioners, L. N. Trammell, S. R. Atkinson, T. C. Crenshaw; Prison Commissioners, J. S. Turner, C. A. Evans, T. Eason; Chief Justice of the Supreme Court, Thomas J. Simmons; Associate Justices, Samuel Lumpkin, Henry T. Lewis, Andrew J. Cobb, William A. Little, and William H. Fish; Clerk, Z. D. Harrison—all Democrats.

Finances.—The Treasurer's report for the year ending Sept. 30 shows the following figures: Balance Oct. 1, 1898, \$120,004.57; receipts during

the year, \$3,671,932.46; disbursements, \$3,353,160.37; balance Oct. 1, 1899, \$438,776.66.

The largest items of receipts were: From general tax, \$2,201,197.26; from poll tax, \$230,489.71; railroad tax, \$269,044.11; rent Western and Atlantic Railroad, \$420,012; liquor tax, \$142,452.24; hire of convicts under the old lease, \$25,000, and under the new lease, \$50,304.32; insurance tax, \$58,701.42; temporary loans, \$100,000.

The bonded debt of the State Sept. 30, 1898, was \$8,031,500. On Jan. 1 the second installment of bonds issued under act of 1887 became due, and was paid off with the sinking fund then in hand, amounting to \$100,000, leaving the valid interest-bearing debt, \$7,031,500. The rates of interest on the various issues vary from $3\frac{1}{2}$ to 7 per cent., and the total amount of interest is \$339,380. The assets of the State include \$20,700 of Georgia Railroad and Banking Company's stock and \$10,000 of Southern and Atlantic Telegraph stock, besides the public buildings and the Western and Atlantic and Northeastern Railroads, none of which are estimated.

The aggregate value of real estate as reported in 1899 was \$235,410,751, and of personal estate \$137,516,326, making a total of \$372,927,077, which is an advance of more than \$3,000,000 on that of 1898. The whole amount of tax on polls, professions, and property, after deducting defaulters, was \$2,372,246.84. The aggregate value of property returned by colored taxpayers was \$13,447,423, a decrease of \$271,777 from that of 1898.

Education.—The report of the State School Commissioner for 1898 shows the number of schools of the common-school system to be 7,547, and those of local systems 384. The number of teachers of the former was 8,629, and the amount paid them \$1,231,307.67. There were 948 teachers of local systems, receiving \$442,765. The county school commissioners were paid \$62,304.95 and local superintendents \$27,675.

The enrollment in common schools was 421,237, and the average attendance 231,060; the per capita of expenditure estimated by enrollment was \$3.26, while in the local schools, which had an enrollment of 47,870, it was \$11.78. The enrollment in common schools in 1898 was 34,414 more than in 1897, and the amount paid to teachers was \$290,698.24 greater.

The amount of the fund received from the State by the common-school system, including balances from the previous year, was \$1,404,832.88. The local systems received from the State, including balances, \$206,318.14, and \$356,068.36 was raised for them by local taxation.

The sources from which the school fund for 1899 was derived and the amounts were as follow: Direct appropriation, \$800,000; half rental Western and Atlantic Railway, \$210,006; liquor tax, \$104,659; net hire of convicts, \$13,622; tax on shows, \$6,000; dividend on Georgia Railway stock, \$2,146; fees for inspection fertilizers, \$16,749; fees for inspection oils, \$15,000; poll tax, \$230,000; total fund, \$1,398,122.

The amount received from the Peabody fund was \$7,156.

The value of books in use that were bought before July 1, 1898, was \$107,369.45, and the value of those bought during the year 1898-'99 was \$97,765.34, many new books having been adopted. These figures are from reports of 97 counties.

There are 94 school libraries, valued at \$10,918.31.

From a statement in regard to illiteracy in the report it appears that, though the number of illiterates has increased in the past five years,

the percentage has declined. The total number in 1898 was 83,616, of whom 22,917 were white and 60,699 were colored. The percentage of illiterates to the population was 12.6, a decrease of 6.3 per cent. since 1893; the percentage of white illiterates is 6.7, a decrease of 4.6; and the percentage of colored illiterates is 18.9, a decrease of 8.3. The enrollment of colored children in the schools is 166,450; the average attendance, 92,973.

Suit was brought by colored citizens of Richmond County against the Board of Education. This board had closed the colored high school for want of funds, leaving a white high school still in existence, and the suit was instituted for the purpose of securing an injunction to prevent the collection of taxes for the maintenance of the school system generally. In passing upon the case, Justice Harlan said that the education of the young had been remitted to the several States, and that it should be generally left to their control. The court had not been able to discover that the Supreme Court of Georgia had erred in refusing to grant an injunction; hence the decision of that court, which was adverse to the petition of the colored people, was affirmed. He reviewed the testimony at length, saying that it appeared that the school board was confronted with the necessity of closing the colored high school and turning the high-school building over to the negro children of the primary grades or of leaving the latter without educational facilities.

Preparations have been made for a summer session of eight weeks at the university, to which any white person qualified to pursue any of the courses of instruction may gain admittance. Thirty-four courses are offered, in order that the preferences of students may be ascertained.

Andrew Carnegie has offered to give \$100,000 for a free library in Atlanta if a site is provided and a fund for maintenance of not less than \$5,000 a year.

The Normal and Industrial College, at Milledgeville, had a total attendance of 382 girls in the college classes and 60 children in the model school during the session of 1898-'99. The students came from 99 counties in the State; 165 were preparing for teaching in the normal course, 61 were in the collegiate-industrial, and 31 in the special industrial classes. The normal graduating class in June numbered 18, and the collegiate 4.

During the session of 1898-'99 the North Georgia Agricultural College had 237 regular students, of whom 51 were women, representing 60 counties of the State. The cost to the State was \$30 for each student.

The enrollment at the State Normal School, at Athens, in 1899 was 714. The average attendance is not more than half the enrollment, because many students attend for five months and teach for five months each year till their course is finished. There are 10 instructors. The appropriation, which was \$22,500 for 1898, was reduced to \$16,000 for each of the two years next succeeding.

Prisons.—The second annual report of the Prison Commission covers the year ending Sept. 30, 1899, the commission having been created by legislative act in December, 1897, when the old lease-contract system was given up and a new system was established, under which the State resumed control of the convicts. A farm was bought, and the 60 women, 23 boys under sixteen, and 75 old or infirm men were removed to it, leaving 2,022 to be placed at labor for contractors. The expenditures for farm expenses, including pay of officers and guards in charge, transportation, clothing, etc., amounted to \$15,-

859.19. The products of the farm were valued at \$16,495, showing a small profit.

The commission has examined 251 applications for pardons, out of which they recommended pardons in 46 felony cases not capital and 26 in misdemeanors. Commutations were recommended in 4 cases of felony not capital, 17 in misdemeanors, and 2 in capital cases.

Since the passage of the law allowing juries and judges to reduce certain felonies to misdemeanors there has been an increase in the number of convictions for misdemeanors and a corresponding reduction in the number of convicts sent to the Penitentiary.

At the time of the report there were in the chain gangs 37 boys under sixteen and 117 women, 1 of each being white, besides 132 white men and 2,135 colored men. Of the 2,201 remaining in the Penitentiary at the end of the year, 1,080 were wholly illiterate, 250 could read only, and 871 could read and write.

It was decided in September that the new Southern Federal Prison shall be built just outside the limits of Atlanta. The city paid \$25,000 and the Southern Railway \$35,000 for the site—a tract of 300 acres. The buildings are expected to cost about \$2,000,000, and to be finished in 1902.

Railroads.—The total mileage of railroads in the State Oct. 1, 1899, was 5,531.86, an increase in the year of 56.60. The total gross earnings for the year ending June 30 were \$21,087,310.36; the operating expenses, \$14,790,718.85; the total net earnings, \$6,296,591.51; the percentage of operating expenses to gross earnings, 70.14. There are 51 companies or systems operating in the State. Five of these operate 55.8 per cent. of the total mileage, and earned 69.9 of the total gross earnings. Only 6 companies reported deficits. The net earnings this year were \$744,285.50 more than in 1898.

Banks.—By a comparison of the Bank Examiner's report for 1898 and that of 1899, it is found that the number of State banks has increased from 119 to 139; the total resources from \$33,012,557.58 to \$37,577,933.70; the cash on hand from \$2,584,004.93 to \$2,841,083.76; the deposits from \$18,097,635.67 to \$21,150,309.15.

Loan Associations.—A decision was rendered in the Superior Court at Savannah, March 30, in the case of the Georgia State Building and Loan Association against the city of Savannah. The city assessed the association \$250,000 on its property, including the money that has been loaned to shareholders. The association refused to pay the taxes, claiming an exemption under the State law exempting building and loan associations from taxation on capital that is loaned to shareholders. When its property was levied on it sought an injunction in the Superior Court. Judge Falligant heard the argument and handed down a decision holding that the law exempting such associations from taxation on the capital loaned the shareholders was unconstitutional.

Products.—The cotton crop for the year is unusually small, being estimated at not more than 8,900,000 bales for the entire cotton belt; that of Georgia at about 1,000,000 bales. The acreage in Georgia was 3,288,000. The State Commissioner of Agriculture advises the farmers to reduce the acreage of cotton and raise more of such other crops as the land will grow. He says: "For thirty-three years we have relied on cotton alone with which to purchase everything else. During that time we have made not less than 20,000,000 bales, worth at a moderate estimate fully \$800,000,000. What has become of this vast

amount of money, which if kept at home would have made us one of the richest States in the Union? It has all gone to pay the farmers and manufacturers of the North and East for supplies of various kinds, every item of which we could and should have produced within our own borders. Suppose we had made only 10,000,000 bales in the past thirty-three years, and in addition had produced all the supplies that we have bought from other States, is it not self-evident that we would be better off by \$400,000,000 than we are at present? The entire property of the State, cities included, is now but a little over \$400,000,000, and the farmers of Georgia ought to have been richer by this vast amount had they not been deluded by the all-cotton fallacy."

The wheat crop estimate is 2,607,360 bushels. The acreage devoted to corn was 24 per cent. larger than that of 1898. The quantity of fertilizers sold in the State was 20.6 per cent. less than in the previous year.

An effort is making to revive the sugar industry—to increase the acreage and establish sugar plants. Heretofore the cane grown in the State has been almost exclusively made into sirup, a product much less valuable.

Speaking of the beautiful green marble, or rather serpentine, quarried in Georgia, a Maine newspaper says: "The quarry is now over 60 feet deep, and the deeper it gets the better is the marble. When the first company organized to work the marble quarry they attempted to get out the stone by blasting with dynamite, which shattered the stone and greatly wasted it. Shortly afterward the company went into the hands of a receiver. Last spring a Chicago stock company was organized and went to work with channeling machines. During the summer the ragged hole left by the former dynamite method of working has been shaped out, the walls squared, the floor leveled, and now blocks of stone of regular sizes, weighing 8 and 10 tons, are taken out."

Labor.—The operatives in three cotton mills in Augusta struck in November in consequence of a reduction in wages. The owners explained that the reduction was necessary on account of the competition of mills in the Carolinas, and they offered to make a schedule giving 6 per cent. more than was given in those mills. The proposal was not accepted, the men declaring that as wood and rents were higher in Augusta the comparison was not fair. The mills were closed Nov. 30. About 3,000 operatives were involved.

Georgia Monument.—A monument to the soldiers of the State who took part in the battle of Chickamauga was unveiled on the battle ground, May 4, with appropriate ceremonies. The Legislature of 1897 appropriated \$25,000 for this object.

The Buskin Colony.—This co-operative colony was established in 1895 on a tract of 1,800 acres in Middle Tennessee. In September, 1899, it was removed to Duke, Ware County, Ga. About 250 persons comprise the colony. It is organized as a stock company. The entrance fee is \$500 for each family, and before a family can enter the colony it has to be passed on by a vote of all persons in the body. It seems that the trouble arose over the dissatisfaction of a few who wanted to draw out and take out their stock. In the course of the trouble the colony was thrown into the courts by the dissenters, and the result was that it went into the hands of a receiver. Those who still have faith in the principles on which the colony is founded thought best to sell their interest in the property in Tennessee and remove to Georgia.

Lawlessness.—On the night of Jan. 21 a mob went to the home of John Rustin, near Colquitt, in Miller County, killed him and his son and wounded his daughter. The intention had evidently been to exterminate the family. The father lived long enough to give the names of five of the murderers whom he recognized. The motive was easily seen—one of the assailants was out on bail after having been arrested on a warrant charging him with ruining the daughter of the murdered man, and the girl recognized him as the one who fired the shot that wounded her. The Grand Jury found indictments against seven of the mob, and upon trial the father of the young man was the first to be convicted and sentenced to hard labor for life in the Penitentiary.

Feb. 5 was a day of wild excitement in Augusta. A member of a Minnesota regiment was killed by a barkeeper; the comrades of the dead man determined to avenge his death, and about 75 of them broke camp and set out on that errand, but they were rounded up by troops of the regular cavalry and placed under arrest.

A mob of 300 men broke into the jail at Leesburg and took out 3 negroes, whom they shot. The prisoners were concerned in a robbery and assault upon a woman near the town in December, but had been caught only two days before the lynching.

There was a riot at Griffin in March, caused apparently by a regiment of negro immunes who had been mustered out and were passing through on their way home. They fired pistols from the cars; the local militia were called out, and a brakeman on the train was mortally wounded.

On a charge of having set incendiary fires in Palmetto in February 9 negroes were awaiting their preliminary trial in an improvised jail in that place, when in the early morning of March 16 the guards were overpowered by a mob of masked men, variously estimated from 15 to 150, a number of the men were drawn up in line in the room, the negroes were made to stand in a row, and two volleys were fired into them. Four were killed and one mortally wounded, while two were slightly hurt and one escaped injury. Troops were ordered to the town and remained about ten days.

Another horrible tragedy, possibly connected with the one just described, took place near Palmetto a little later. Threats, it is reported, were made against white men who had been active in securing evidence against the incendiaries or who for some other reason were obnoxious to the worst class of negroes, several of whom were supposed to be in a conspiracy to murder these men. One Sam Holt or Hose, sometimes known as Tom Wilkes, committed a horrible crime on the family of Mr. Cranford, by whom he had been employed. The crime is thus described by a correspondent of the New York Herald, who went to Georgia to investigate the affair: "On that fatal day he crept into the house in bare feet, axe in hand, while the father, mother, and two children were at the table. It was a moment of speechless horror to the wife, for she saw the murderer, saw the uplifted axe, but before she could warn her husband the weapon flew to the mark, swung by the frenzied arm of Hose, and buried itself up to the handle in his head. When the victim had fallen Hose hewed and hacked him as one hews a piece of timber. Holt held the baby by the heels with his left hand; the axe was in his right hand, and he threatened to cut off its head unless the mother submitted to his damnable wishes. The dead husband on the floor, one

child lying unconscious from a cruel blow, and now the last child, a babe, to be gashed to death unless—The woman must decide at once. The uplifted axe was ready to fall. Maternal instinct forgot all else, and she cried, 'Save my little ones!'" The negro was captured a few days later, taken to Macon, and put aboard a train for Atlanta. He was recognized at Griffin by some one, who sent word to Newnan that he was on the train. When that station was reached he was taken out at the suggestion of the crowd that had gathered and delivered to the sheriff, by whom he was put into jail, but afterward turned over to the mob. Ex-Gov. Atkinson and Judge A. D. Freeman, who lived in Newnan, addressed the crowd, imploring them to leave the negro's punishment to the law; but their words had no effect. He was taken to the house of Mrs. Cranford's mother, where he was identified, then to a place a mile and a half from the town, where he was chained to a tree and, after being horribly mutilated and tortured, was burned in the presence of 2,000 persons. Before this he had confessed the murder, but said he was hired by Lije Strickland, the negro preacher, who gave him \$12 to kill Mr. Cranford. The next morning, April 24, the body of Strickland was found hanging from a tree near Palmetto. He had protested his innocence, and there appears to have been no evidence against him except that of Hose, who in his confession made other statements that were known to be false. Major W. W. Thomas tried to save Strickland's life when the mob were taking him away. He left them with the understanding that they would take the man to jail at Fairburn, but he was led away to his death.

In May and June there was trouble in Griffin from a band of "regulators," who were in a scheme to drive the negroes out of the place. They took colored men from their houses and beat and cut them. Five were arrested and indicted.

A dispatch from Covington, Ga., July 27, said: "Three Mormon elders, who have been preaching their peculiar doctrines in this section for the past few weeks, were mobbed last night by 30 masked men near Newton factory, in Jasper County, and their present whereabouts are unknown to the people here." From later information it appears that they were not harmed, but were taken to the county line and warned to leave.

Three negroes were killed by a mob at Saffold, Early County, July 22, for being concerned in a robbery and assault. They confessed the crimes, and said five others were in the gang. One of these was taken and hanged July 25. Troops were sent to Bainbridge that day to guard the jail, in which was a negro held for a similar crime.

A negro accused of a criminal assault was in danger of lynching by a mob at Darien about Aug. 26. There was an uprising of negroes, and a race war was threatened. Troops were sent promptly, the danger was averted, and the accused was afterward brought to trial and acquitted.

Seven men were indicted at Greenville, Aug. 29, charged with kidnaping and whitecapping a negro who had refused to work for one of them. He asserted that they took him from his home and beat him unmercifully with buggy traces and whips. Several crimes of a similar nature were reported to have occurred in the neighborhood about the same time.

Gov. Candler appealed to all good citizens of the State, white and black, to join hands and

do all in their power to prevent crime and put an end to mob violence. He said: "The ordinary processes of the law are amply sufficient to punish all crimes. Our judges are pure and incorruptible. Our juries are composed of our most intelligent, upright men, who seldom make mistakes."

Political.—A conference of the Populist leaders in the State was held in Atlanta in August. The object of the meeting was said to be "to ascertain the strength of the party, and see just how the people of the State stood in regard to it. The principal affairs discussed, with the exception of party standing in the State, were the declaration against fusion, the arrangement for complete State organization in every militia district, and the indorsement of the presidential candidate."

By unanimous action the members declared for "middle-of-the-road" populism and against fusion with either of the older parties. They approved the candidacy of Wharton Barker for President and Ignatius Donnelly for Vice-President, and decided to nominate a full State ticket.

Legislative Session.—The annual session of the Legislature extended from Oct. 26 to Dec. 16. The Governor devoted several paragraphs of his message to crime and mob violence. He is reported to have said that the unusual amount of crime by lawless negroes and the consequent vengeance by mobs is due, in part at least, to intermeddling in newspaper articles and incendiary letters, which serve to aggravate the trouble.

The bills introduced numbered 392, and the resolutions 145. More than 200 were passed.

The Tax Commission, whose appointment was provided for by the Legislature of 1898 to consider the question of taxation, reported at this session, recommending an income tax, a collateral-inheritance tax, and the imposition of a special State tax on all quasi-public corporations; also the creation of a State board of tax commissioners, with large powers over local assessments and exclusive authority to assess railroad, telegraph, telephone, and express companies. The House disposed of the proposed measure by referring it to the Governor for transmission to the next Legislature, as it could not receive proper consideration at this session.

A law was made prohibiting the sleeping-car companies operating in the State from furnishing berths to negro passengers, except in coaches used exclusively for negroes.

An act, intended to enable farmers to hold their cotton and other crops for better prices, permits warehousemen to give bond in amount equal to the capacity of their warehouses, and to issue negotiable warehouse receipts.

It was provided that the State militia shall be reorganized. All commissions of officers in the service are to expire Feb. 1, 1900, when new officers shall be elected by the companies. The field officers are then to be elected by the line officers. Commissions are to expire regularly at the end of three years.

A bill was passed providing for a State board of examiners in osteopathy; but it was vetoed, having been opposed by the Atlanta physicians on the ground that graduates of the only school of osteopathy were practically without knowledge of *materia medica*.

Among bills defeated was one for biennial sessions of the Legislature and a franchise act similar to the one passed as a proposed constitutional amendment in North Carolina. This also was proposed as an amendment to the Constitu-

tion. It provided that no person should be allowed to vote in Georgia unless he should be able not only to read and write any paragraph of the State Constitution, but also to "understand" and "give a reasonable interpretation" to any paragraph of it. The election officers were to be the judges of the voter's understanding and interpretation of the paragraphs of the Constitution proposed to him as tests. This provision, standing alone, gave the election officers power to disfranchise any voter, white or black, in their discretion. But the rights of most white voters were protected by a proviso that no person who was entitled to vote on or before Jan. 1, 1867, in the State in which he then resided, and no lineal descendant of any such person should be disfranchised, even if he could neither read, write, understand, nor interpret any paragraph of the State Constitution. This was defeated by a vote of 137 to 3 in the House.

A bill for absolute prohibition of the manufacture, sale, keeping for sale, giving away, or furnishing intoxicating liquors, except as medicine by orders of physicians, passed the House by a vote of 93 to 65, but was defeated in the Senate by a vote of 26 to 14 after a debate lasting three days. The author of the bill, Mr. Willingham, asks to have the measure made an issue to be voted upon at the Democratic primaries. One of the strongest arguments against the bill was that showing how much the school fund would suffer by the loss of the liquor tax—about \$150,000. The counties now have local option.

GERMANY, an empire in central Europe composed of the federated German states. The King of Prussia is German Emperor, and in this capacity has supreme charge of political and military affairs, with power to make war and conclude peace, except that for an offensive war he must have the consent of the federated states and princes. There are two legislative bodies with concurrent powers—the Bundesrath, representing the federated states, and the Reichstag, representing the German people. The acts on which they agree become law upon receiving the Emperor's assent and being countersigned by the Chancellor of the Empire. The Bundesrath has 58 members, appointed by the governments of the federated states. The Reichstag has 397 members, 1 to 124,500 of population, elected by universal manhood suffrage and by secret ballot. In the Bundesrath Prussia is represented by 17 members, Bavaria by 6, Saxony and Württemberg by 4 each, Baden and Hesse by 3 each, Mecklenburg-Schwerin and Brunswick by 2 each, and the other states each by a single member. In the Reichstag there are 236 members from Prussia, 48 from Bavaria, 23 from Saxony, 17 from Württemberg, 15 from Alsace-Lorraine, 14 from Baden, 9 from Hesse, 6 from Mecklenburg-Schwerin, 3 each from Saxe-Weimar, Oldenburg, and Brunswick, 2 each from Saxe-Meiningen, Saxe-Coburg-Gotha, and Anhalt, and 1 from each of the other states.

The German Emperor is Wilhelm II, born Jan. 27, 1859, who succeeded his father, Friedrich III of Prussia, on June 15, 1888. The heir apparent is Prince Friedrich Wilhelm, born May 8, 1882.

The Chancellor of the Empire at the beginning of 1899 was Prince Hohenlohe-Schillingsfürst, appointed Oct. 29, 1894. The following secretaries of state were in charge of the various departments: Minister of Foreign Affairs, B. von Bülow; Secretary of the Interior and Representative of the Chancellor in the Reichstag, Graf Posadowsky-Wehner; Secretary of the Imperial Marine, Rear-Admiral Tirpitz; Ministry of Justice, Dr.

A. Nieberding; Imperial Treasury, Freiherr von Thielmann; Imperial Post Office, Lieut.-Gen. Von Podbielski; Imperial Railroads, Dr. Schulz; Imperial Exchequer, Herr Von Wolff; Imperial Invalid Fund, Dr. Kösing; President of the Imperial Bank, Dr. Koch; President of the Imperial Debt Commission, Herr Von Hoffmann.

Area and Population.—The total area of Germany is 208,830 square miles. The population on Dec. 2, 1895, was 52,279,901, divided into 25,661,250 males and 26,618,651 females. One half of the population lives in towns of upward of 2,000 inhabitants. The number of persons supported by mining, metal works, and other industries in 1895 was 20,253,241; by agriculture, cattle raising, etc., 18,068,663; by commerce and trade, 5,966,846; by forestry, hunting, and fishing, 432,644; employed in domestic and other service, 886,807; engaged in the professions, 2,835,014; without occupation, 3,327,069. The number of foreign residents in 1895 was 486,190, of whom 222,952 were Austro-Hungarians, 50,743 Dutch, 44,875 Swiss, 28,146 Danes, 26,559 Russians and Finns, 22,693 Italians, 19,619 French, 15,788 from the United States, 15,290 British, 11,755 Luxemburgers, 8,947 Belgians, 8,937 Swedes, 2,154 Norwegians, 3,316 other Europeans, and 4,416 from other countries outside of Europe. The number of marriages in 1896 was 432,107; of births, 1,979,747; of deaths, 1,163,964; excess of births, 815,783. The number of emigrants in 1897 was 24,631, of whom 20,346 were bound for the United States, 936 for Brazil, 1,765 for other countries in America, 1,115 for Africa, 324 for Australia, and 145 for Asia. Besides Germans, 64,419 emigrants from Austria-Hungary, Russia, and other countries embarked at German ports, while 6,573 German emigrants sailed from Rotterdam and Amsterdam, still more from Antwerp, and an unknown number from French ports. Of those who sailed from German, Dutch, and Belgian ports, 12,972 were males and 10,248 females. The number of families was 2,609, comprising 8,476 individuals. Of the total number sailing from German ports, Antwerp, Rotterdam, and Amsterdam, 13,497 were from Prussia, 2,638 from Bavaria, 1,401 from Württemberg, 1,449 from Hamburg, 950 from Saxony, 815 from Baden, 506 from Bremen, 468 from Hesse, 271 from Oldenburg, 217 from Mecklenburg-Schwerin, and 198 from Alsace-Lorraine. The population of the principal towns on Dec. 2, 1895, was as follows: Berlin, 1,677,304; Hamburg, 625,552; Munich, 407,307; Leipzig, 399,963; Breslau, 373,169; Dresden, 336,440; Cologne, 321,564; Frankfurt on the Main, 229,279; Magdeburg, 214,424; Hanover, 209,535; Düsseldorf, 175,985; Königsberg, 172,796; Nuremberg, 162,386; Chemnitz, 161,017; Stuttgart, 158,321; Altona, 148,944; Bremen, 141,894; Stettin, 140,724; Elberfeld, 139,337; Strassburg, 135,608; Charlottenburg, 132,377; Barmen, 126,992; Dantzic, 125,605; Halle on the Saal, 116,304; Brunswick, 115,138; Dortmund, 111,232; Aachen, 110,551; Krefeld, 107,245.

Finances.—The revenue of the Imperial Government for 1899 was fixed at 1,355,460,500 marks from ordinary sources and 57,427,000 marks from loans and other extraordinary sources; total, 1,412,886,500 marks. The extraordinary revenue was applied to military and other designated purposes. The ordinary expenditures were estimated at 1,384,152,600 marks. The total expenditures, including the extraordinary disbursements, came to 1,441,578,600 marks, according to the estimates. The estimated receipts from customs and excise were 701,490,000 marks, and from stamps 60,842,000 marks; total tax revenue, 762,332,000

marks. The receipts from customs, tobacco, spirits, and stamp duties in excess of 130,000,000 marks are repaid to the various states. This surplus in 1899 amounted to 441,328,000 marks. The expenditures of the Imperial Government in excess of the receipts from taxation and other sources are assessed on the states in proportion to their population. These federal contributions in 1899 were fixed at 475,526,000 marks. Included in the revenues are the receipts from posts and telegraphs, amounting to 39,771,200 marks, 1,639,300 marks from the imperial printing office, 26,320,900 marks from railroads, 5,988,300 marks from the Imperial Bank, 14,470,200 marks from the various departments, 28,646,500 marks of interest on the Invalid fund, and 565,000 marks of interest on the Imperial fund. The expenditures under the separate heads were 689,400 marks for the Reichstag, 228,400 marks for the Imperial Chancellery, 11,300,700 marks for the Ministry of Foreign Affairs, 40,755,600 marks for the Ministry of the Interior, 511,892,500 marks for the army, 62,750,900 marks for the navy, 2,008,200 marks for the Ministry of Justice, 446,750,900 marks for the Imperial Treasury, 373,200 marks for the railroad bureau, 73,858,800 marks for expenses of the debt of the empire, 809,000 marks for the audit office, 61,713,100 marks for the Pension fund, and 28,646,000 marks for the Invalid fund; total ordinary recurring expenditure, 1,241,836,900 marks. The total of nonrecurring and extraordinary expenditures was 199,741,700 marks. The total expenses of the army, ordinary and extraordinary, were 608,202,000 marks; of the navy, 122,054,000 marks. Of the federal contributions Prussia paid 277,727,700 marks, Bavaria 60,196,800 marks, Saxony 33,046,600 marks, Württemberg 21,047,700 marks, Baden 10,327,700 marks, Alsace-Lorraine 15,544,700 marks, Hesse 9,054,000 marks, Hamburg 5,941,600 marks, Mecklenburg-Schwerin 5,212,000 marks, Brunswick 3,787,300 marks, Oldenburg 3,258,400 marks, Saxe-Weimar 2,959,400 marks, Anhalt 2,558,000 marks, Saxe-Meiningen 2,040,000 marks, Saxe-Coburg-Gotha 1,887,900 marks, Bremen 1,713,000 marks, Saxe-Altenburg 1,574,100 marks, Lippe 1,177,300 marks, Mecklenburg-Strelitz 885,300 marks, Schwarzburg-Rudolstadt 773,800 marks, Lübeck 726,300 marks, Schwarzburg-Sondershausen 679,200 marks, Reuss-Greiz 588,200 marks, Waldeck 503,400 marks, Schaumburg-Lippe 359,300 marks, and Reuss-Schleitz 156,900 marks.

The funded debt of the empire in 1898 amounted to 2,141,242,300 marks, of which 901,242,300 marks pay 3 per cent., 790,000,000 marks 3½ per cent., and 450,000,000 marks 4 per cent. interest. The unfunded debt consists of treasury bills to the amount of 120,000,000 marks. A war treasure of 120,000,000 marks is hoarded in the fortress of Spandau. The Invalid fund of 424,613,700 marks is invested.

The budget and debts of the individual states for 1899, or in the case of a few for 1898, are given in marks in the table on the next page.

The debts were incurred in nearly all cases for railroads and other remunerative improvements. Some of the states own the railroads free of debt, and derive most of their revenue from these and the mines and forests belonging to them. In Alsace-Lorraine there are 998 miles of state railroads. In Anhalt more than half the public revenue is derived from state property. In Baden the whole debt was incurred for railroads, which pay a net profit of 15,000,000 marks a year. Of the Bavarian debt, 1,069,000,000 marks were borrowed for railroad construction, and the

net profits from the railroads, after paying interest and amortization, are about 8,000,000 marks a year. The whole of Bremen's debt was incurred for railroads, harbor works, and other useful improvements. Four fifths of the debt of Brunswick are represented by railroads, besides which the state possesses valuable domains and forests and invested funds amounting to 42,000,000 marks. The railroads have been transferred to the Imperial Government in return for an annual payment of 2,625,000 marks, ceasing in 1932. The duke's civil list of 1,125,000 marks is not paid out of the ordinary revenue, nor is the expenditure of 2,612,880 marks a year for schools and art and science included in the budget, the means being derived from a special fund. In the debt of Brunswick an annuity of 1,219,740 marks, running till 1924, is not reckoned. The debt of Hamburg was raised mainly for harbor improvements and other public works. Against the debt of Hesse the state possesses the railroads, which were responsible for 210,584,000 marks of the total, and active funds amounting to 10,734,000 marks. In Lippe the farms and forests constituting the domains are the entailed estate of the princely house, and the expenses of the court are defrayed from their revenues. Lübeck derives a sixth of its revenue from forests and domains and a fourth from invested funds, while a fourth of the expenditure is for interest and amortization of the debt. In Mecklenburg-Schwerin, besides the common budget of the Grand Duke and the two states, given above, the states have small separate budgets, and the Grand Duke has an independent income of 19,200,000 marks a year. The interest of the railroad debt of 9,860,000 marks is covered by an annuity of 960,000 marks, and that of the consolidated debt by state funds. In Mecklenburg-Strelitz more than half the land is owned by the Grand Duke, and the rest by federal nobles and town corporations. The whole of the public revenue forms the civil list of the Grand Duke, whose Minister of State publishes no accounts of revenue and expenditure. In Oldenburg the debt is fully covered by the value of the railroads.

In Prussia 86,529,004 marks of the revenue were derived from domains and forests, 1,600,000 marks from other receipts of the Ministry of Agriculture, 170,397,700 marks from direct taxation, 75,114,000 marks from indirect taxes, 82,-

474,000 marks from the state lottery, 2,344,000 marks from the Marine Bank, 358,920 marks from the mint, 134,797,310 marks from mines, furnaces, and salt works belonging to the Government, 1,209,717,256 marks from the state railroads, 285,240 marks from dotations, 314,803,652 marks from the general financial administration, 4,465,478 marks from the Ministry of State, 4,600 marks from the Ministry of Foreign Affairs, 2,126,430 marks from the Ministry of Finance, 9,629,000 marks from the Ministry of Public Works, 2,612,076 marks from the Ministry of Commerce and Industry, 68,018,500 marks from the Ministry of Justice, 13,090,184 marks from the Ministry of the Interior, 4,578,046 marks from the Ministry of Agriculture, 4,572,688 marks from the Ministry of Public Worship and Instruction, and 300 marks from the Ministry of War. Of the total expenditures of Prussia for 1899, the sum of 44,660,320 marks was for working expenses of the Ministry of Agriculture, Domains, and Forests, 121,980,090 marks for those of the Ministry of Finance, 118,522,731 marks for those of the Ministry of Commerce and Industry, 693,897,782 marks for the administration of railroads, 8,000,000 marks for an addition to the Crown dotation of the King, 224,133,416 marks for interest of the public debt, including the railroad debt, 38,911,332 marks for the sinking fund of the debt, 181,860 marks for the Herrnhaut, 1,215,920 marks for the Chamber of Deputies, 277,523,878 marks for the federal contribution to the expenses of the Imperial Government, 72,858,164 marks for appanages, annuities, indemnities, etc., 7,340,160 marks for administrative expenses of the Ministry of State, 551,300 marks for those of the Ministry of Foreign Affairs, 91,395,047 marks for those of the Ministry of Finance, 29,063,432 marks for those of the Ministry of Public Works, 8,932,573 marks for those of the Ministry of Commerce and Industry, 103,145,000 marks for those of the Ministry of Justice, 60,259,739 marks for those of the Ministry of the Interior, 20,877,014 marks for those of the Ministry of Agriculture, Domains, and Forests, 129,958,014 marks for those of the Ministry of Public Worship and Instruction, and 137,527 for those of the Ministry of War. The sum of all these is 2,055,891,390 marks, the total ordinary expenditure, to which are added 131,636,004 marks of estimated extraordinary expenditures. The expenditure for the army and navy forms part of the imperial budget. The bulk of the national debt pays 3½ per cent. interest, only 835,000,000 marks having been funded at 3 per cent.

The revenue of Reuss-Greiz passes through the hands of the Prince, who has the sole executive power, and shares the legislative power with the Diet. In Reuss-Schleiz two thirds of the revenue are derived from domains. The state had an invested fund of 5,455,000 marks. In Saxe-Coburg-Gotha the revenue from domains, amounting to 439,600 marks for Coburg and 2,144,226 marks for Gotha, is kept separate from the state revenue, and each state has its special revenue—942,840 marks for Coburg and 2,052,570 marks for Gotha—which is not included in the common budget as given above. The debt of Coburg is 2,778,300 marks, and that of Gotha 146,558, both nearly or quite covered by productive public works. In Saxe-Meiningen also most of the debt is covered by productive investments, while the domains produce a third or more of the public revenue. In Saxe-Weimar the productive capital more than offsets the debt, and the state forests yield a large part of the state revenue. The ordi-

nary revenue and expenditure of Saxony, as given in the table, are kept apart from the extraordinary receipts and disbursements, amounting in 1899 to 106,495,114 marks, which were expended on useful public works. Almost the entire debt was incurred for railroads, telegraphs, and other reproductive works, and more than half of the total revenue is derived from domains and forests and the state railroads, which latter yielded a net revenue of 37,540,190 marks in 1897. In Schaumburg-Lippe the Prince disposes of the revenue, controlled by a Diet. Of the debt of Schwarzburg-Rudolstadt one fourth is covered by investments. The Prince of Schwarzburg-Sondershausen has a large private income from his property, besides receiving a civil list of 500,000 marks. The finances of Waldeck are managed by Prussian officials.

The Army.—The German army is composed of 21 corps, each organized as a strategical unit, with the cavalry, artillery, auxiliary services, and supply arrangements necessary to enable it to operate as a complete army. Every one of these, except the Hessian separate division, which is only brought up to the strength of an army corps in time of war, consists of two divisions of infantry, to each of which a regiment of cavalry is attached, one division of 4 regiments of cavalry, to which are attached 2 batteries of horse artillery, a reserve of artillery, consisting of 6 field batteries and 1 mounted battery, 1 battalion of train, and 1 battalion of pioneers. Besides the Prussian corps of the guards, there are 12 Prussian corps and 7 raised in other states, of which the 2 Bavarian corps and the Württemberg corps are provided for and administered in time of peace by the state governments, and officers are appointed, subject to the Emperor's approval, by the rulers of the two states. All the other corps are under the direction of the Prussian Ministry of War. The First Army Corps is the East Prussian, the Second the Pomeranian, the Third the Brandenburger, the Fourth the Saxon, the Fifth the Posen, the Sixth the Silesian, the Seventh the Westphalian, the Eighth the Rhineland, the Ninth the Schleswig-Holstein, the Tenth the Hanoverian, the Eleventh the Hesse-Nassau, the Twelfth the royal Saxon, the Thirteenth the Württemberg, the Fourteenth the Baden, the Fifteenth the Alsatian, the Sixteenth the Lorraine, and the Seventeenth the West Prussian. The First and Second Bavarian Corps are not numbered consecutively with the others. The empire is divided into 10 fortress districts, containing 17 fortified camps, besides 19 other fortresses. The fortified camps are Königsberg and Dantzic, in the Königsberg district; Posen and Neisse, in the Posen district; Spandau, Magdeburg, and Küstrin, in the Berlin district; Mainz, Ulm, and Rastatt, in the Mainz district; Cologne and Coblenz, in the Cologne district; Metz; Kiel; Strassburg; and Ingolstadt, in the Munich district. The minor fortresses are Pillau, Memel, Friedrichsort, Cuxhaven, Geestemünde, Wilhelmshaven, and Swinemünde, which are coast fortresses; Glogau, Torgau, Diedenhofen, Bitsch, Wesel, Saarlouis, and Gernersheim, which are fortified for the protection of railroads and to command the railroads leading into Germany; the forts at Boyen and Glatz, on the Russian, and Neu Breisach, on the French frontier; and those at Thorn, Graudenz, Dirschau, and the Vistula, in the Thorn district, on the Austro-Hungarian frontier.

The strength of the German army on the peace footing in 1899 was as follows: 215 regiments of infantry, numbering 12,024 officers and 362,940 men; 19 battalions of rifles, numbering 410 offi-

cers and 11,906 men; 288 district commands, numbering 817 officers and 5,499 men; and 2,623 surgeons, instructors, etc., making the total for the infantry 13,251 officers and 383,058 men; 93 regiments of cavalry, numbering 2,385 officers and 65,853 men, not including 817 officers and men on special details; 43 regiments of field artillery, numbering 2,671 officers and 57,984 men, not including 810 officers and men detailed for special service; 17 regiments and 1 battalion of fortress artillery, numbering 870 officers and 22,713 men, not including 132 on special service; 23 battalions of engineers, 3 railroad regiments, 2 balloon detachments, 1 railroad battalion, and 3 railroad companies, numbering altogether 738 officers and 19,085 men, not counting 127 on special service; 21 battalions of train, numbering 310 officers and 7,765 men, not counting 69 on special service; 509 officers and 7,765 men in special formations; and 2,442 staff and nonregimental officers, with 283 men; total peace strength, 23,176 officers and 562,277 men, with 98,038 horses, of which 64,604 are in the cavalry, 29,044 in the field artillery, 43 in the fortresses, and 4,347 in the train. The one-year volunteers, numbering about 8,000, are not counted in the budgetary statement, as they serve at their own expense. Out of 400,000 or more young men arriving at the age of twenty each year nine tenths are fit for military service, but only about 240,000 are drafted into the active army. These are chosen by lot, and the remaining 120,000 are enrolled in the *Ersatztruppen*, or reserves, a part of whom are drilled ten weeks in the first year, six in the second, and four in the third. The drill sergeants and other noncommissioned officers are selected soldiers, who choose to remain with the army after the expiration of the period of enforced service, which is two years for the infantry and three years for the other arms; and when they become too old for the service they are provided with civil employment on railroads, in forests, or in other state services for which they are fitted. The infantry is armed with Mauser rifles of the model of 1888, having a caliber of 7.874 millimetres and 5 cartridges in the magazine. The artillery has for its main weapon the field gun of the models of 1873 and 1888, having a caliber of 88 millimetres.

The Navy.—Germany possesses 6 battle ships of the first class, 4 of the second class, and 6 of the third class; 19 effective coast-defense vessels, consisting of 8 ironclad rams of the Siegfried class and 11 armored gunboats of the Basilisk class; 2 cruisers of the first class, 8 of the second class, and 10 of the third class; and 4 torpedo gunboats, 105 torpedo boats of the first class, and 9 of the second class. There were building 3 first-class battle ships, 1 cruiser of each of the three classes, 4 more torpedo gunboats, and 8 first-class torpedo boats. As the vessels of older construction now counted effective are gradually retired, they are replaced by new ones of the latest design. Thus the König Wilhelm, launched in 1868, the Kaiser, launched in 1874, and the Deutschland, of the same date, are replaced by powerful battle ships of the same design as the Kaiser Friedrich III, launched in 1896, and the Kaiser Wilhelm II, launched in 1897, having a displacement of 11,180 tons, 11½ inches of armor over the vital parts, engines of 13,000 horse power, giving a speed of 18 knots, and an armament of 4 9.6-inch guns in barbettes, with 18 6-inch quick-firing guns and 32 of less caliber. The first-class cruisers are the Kaiserin Augusta, provided with 3 independent screws, of which the middle one alone can give a speed of 10 knots, and Fürst Bismarck, duplicated in a new cruiser, having 7.7

inches of Harveyized steel on sides and turrets and a 3-inch deck, with engines of 14,000 horse power, giving a speed of 19 knots, and an exceedingly powerful armament. The new second-class cruiser is of the same design as the Victoria Luise, Hertha, Freya, Hansa, and Vineta, which have a displacement of 5,500 tons, a powerful armament, good protection, and a speed of 20 knots.

Commerce and Production.—The number of agricultural holdings worked by separate families in 1895 was 5,558,317, including pastoral holdings, orchards, vineyards, etc. There were 2,529,132 of less than a hectare, 2,329,367 between 1 and 10 hectares, 674,757 between 10 and 100 hectares, and 25,061 above 100 hectares. The total area was 43,284,742 hectares, supporting 18,008,663 persons, of whom 8,156,045 worked on the land. There was 5,982,180 hectares under rye, 5,909,693 in meadow, 3,979,643 under oats, 3,062,790 under potatoes, 1,926,885 under wheat, 1,676,329 under barley, 461,074 under turnips, etc., 434,708 under sugar beets, 151,526 under buckwheat, 116,405 in vineyards, 40,700 planted to hops, and 22,145 planted to tobacco in 1897. The number of horses in that year was 4,038,485; of cattle, 18,400,772; of sheep, 10,866,772; of hogs, 14,274,557. Forestry is one of the most important industries of the country, and is conducted on scientific principles, under the supervision of state officials even when the forests are not the property of the state. About a fourth of the whole country is under forest; in the south and central parts from 30 to 38 per cent. The exports of fresh fish in 1897 were valued at 7,100,000 marks, while the value of 17,700,000 marks was imported, besides salt and preserved fish valued at 3,700,000 marks. There were 399 sugar works in 1897, and these worked up 13,721,601 metric tons of beet root, producing 1,738,885 tons of sugar and 342,322 tons of molasses. The pulp, used as fodder, is not less valuable than the sugar. The quantity of beet root required to produce a kilogramme of sugar had been brought down in five years from 8.35 to 7.72 kilogrammes. The quantity of refined sugar produced was 1,004,454 tons. The production of sugar from starch was 6,314 tons. The quantity of beer brewed in 1897 was 61,479,000 hectolitres, of which 16,198,000 hectolitres were produced in Bavaria, 3,795,000 in Württemberg, 2,192,000 in Baden, 937,000 in Alsace-Lorraine, and 38,357,000 in the excise district embracing the rest of the empire. The average annual consumption is 21 gallons per capita. There were 62,108 distilleries in 1897, producing 2,101,000 hectolitres of alcohol. The production of coal in 1897 was estimated at 90,055,000 metric tons; of lignite, 29,419,500 tons; of iron ore, 15,466,000 tons; of zinc ore, 663,900 tons; of lead ore, 150,200 tons; of copper ore, 700,800 tons; of salt, 763,400 tons; of potassic salts, 1,946,200 tons. The quantity of pig iron produced in 1896 was 6,372,575 metric tons, valued at 299,660,000 marks; of zinc, 153,100 tons, valued at 47,108,000 marks; of lead, 113,793 tons, valued at 25,032,000 marks; of copper, 29,319 tons, valued at 29,174,000 marks; of silver, 428 tons, valued at 38,872,000 marks; of tin, 826 tons, valued at 952,000 marks; of gold, 2,487 kilogrammes, valued at 6,915,752 marks; of sulphur and sulphuric acid, 593,150 tons, valued at 15,313,000 marks; of nickel, bismuth, and various mineral products, 33,546 tons, valued at 10,941,149 marks. The total value of the product of foundries of various kinds in 1896 was 473,967,705 marks. The quantity of manufactured iron produced was 7,382,489 tons, valued at 916,787,819 marks.

The special trade of the German customs union in 1897 was distributed among the different countries as shown in the following table, giving values in marks:

COUNTRIES.	Imports.	Exports.
Great Britain	00	708,899,000
Russia	00	873,084,000
Austria-Hungary	00	695,121,000
France	00	210,410,000
Netherlands	00	263,682,000
Switzerland	00	254,368,000
Belgium	00	189,519,000
Norway and Sweden	00	148,426,000
Italy	00	80,265,000
Balkan Peninsula	00	78,561,000
Denmark	00	107,367,000
German free ports	00	84,374,000
Spain	00	99,860,000
Portugal	00	14,081,000
British India	00	47,278,000
The rest of Asia	00	90,908,000
Africa	00	80,446,000
North America	00	439,263,000
South America and West Indies	00	168,728,000
Australia	00	22,594,000
Other countries	00	680,000
Total	4,864,644,000	3,786,241,000

The total value of the special imports in 1897 was 4,864,644,000 marks; of the special exports, 3,786,241,000 marks. The special imports of live animals were 180,444,000 marks in value, and special exports 23,210,000 marks; imports of animal products were 153,064,000 marks, and exports 31,300,000 marks; imports of articles of consumption were 1,434,201,000 marks, and exports 492,447,000 marks; imports of seeds and plants were 44,343,000 marks, and exports 27,882,000 marks; imports of fuel were 130,375,000 marks, and exports 177,972,000 marks; imports of fats and oils were 236,602,000 marks, and exports 30,861,000 marks; imports of chemicals, drugs, and dyes were 285,109,000 marks, and exports 358,581,000 marks; imports of stone, clay, and glass were 68,756,000 marks, and exports 161,089,000 marks; imports of metals and metal manufactures were 465,316,000 marks, and exports 585,912,000 marks; imports of timber and wood manufactures were 282,269,000 marks, and exports 147,159,000 marks; imports of paper and paper manufactures were 23,630,000 marks, and exports 106,786,000 marks; imports of leather and leather manufactures were 236,461,000 marks, and exports 230,500,000 marks; imports of rubber and rubber manufactures were 49,763,000 marks, and exports 37,483,000 marks; imports of textile materials and manufactures were 1,033,546,000 marks, and exports 917,117,000 marks; imports of machinery and instruments were 86,335,000 marks, and exports 230,551,000 marks; imports of hardware were 20,965,000 marks, and exports 109,948,000 marks; imports of books and works of art were 43,405,000 marks, and exports 127,549,000 marks; various other exports, 894,000 marks. Of the total imports, 2,311,120,000 marks were free of duty and 2,553,524,000 marks paid duties amounting to 474,880,826 marks, an average rate of 18.6 per cent. on dutiable goods. Some of the chief imports were raw cotton of the value of 243,221,000 marks; wool, 218,713,000 marks; wheat, 173,698,000 marks; coffee, 160,368,000 marks; hides, 136,547,000 marks; barley, 120,618,000 marks; woolen yarn, 99,128,000 marks; raw silk, 89,400,000 marks; horses, 84,500,000 marks; rye, 80,283,000 marks; petroleum, 75,107,000 marks. Some of the chief exports were sugar of the value of 229,898,000 marks; coal and coke, 170,085,000 marks; woolen cloth, 144,430,000 marks; trimmings and ribbons, 115,459,000 marks; mixed silk and cot-

ton cloth, 83,457,000 marks; hosiery, 82,276,000 marks; leather goods, 74,534,000 marks; coarse cottons, 69,078,000 marks; aniline dyes, 67,028,000 marks; wooden wares, 63,498,000 marks; paper, 59,410,000 marks.

Navigation.—The number of vessels entered at German ports during 1897 was 77,117, of 16,489,970 tons, counting vessels entered at more than one port only once; cleared, 77,734, of 16,626,028 tons. Of the vessels entered 66,383, of 15,305,328 tons, and of those cleared 56,580, of 11,046,178 tons, were with cargoes, while 10,734 of those entered, of 1,184,642 tons, were with ballast, and of those cleared 21,154, of 5,580,450 tons. Of the vessels entered with cargoes 48,578, of 8,091,316 tons, were German; 5,469, of 4,421,869 tons, were British; 4,801, of 822,676 tons, were Danish; 3,711, of 744,755 tons, were Swedish; 1,245, of 563,703 tons, were Norwegian; 1,744, of 260,368 tons, were Dutch; and 604, of 201,945 tons, were Russian. Of the number cleared with cargoes 44,301, of 7,018,987 tons, were German ships; 3,065, of 2,090,279 tons, were British; 4,454, of 660,509 tons, were Danish; 2,187, of 501,908 tons, were Swedish; 750, of 311,909 tons, were Norwegian; 1,322, of 204,277 tons, were Dutch; and 342, of 121,509 tons, were Russian. At the port of Hamburg 10,921 vessels, of 6,942,908 tons, were entered, of which 9,779, of 6,498,402 tons, were with cargoes and 1,142, of 444,504 tons, in ballast; and 11,616, of 7,168,888 tons, were cleared, of which 9,076, of 4,930,707 tons, were with cargoes and 2,540, of 2,238,181 tons, in ballast. At Bremen the number entered was 3,997, of 1,770,223 tons, of which 3,825, of 1,708,243 tons, were with cargoes; and the number cleared was 4,217, of 1,757,312 tons, of which 2,588, of 1,276,174 tons, were with cargoes. At Stettin the number entered was 4,467, of 1,459,880 tons, of which 4,384, of 1,416,258 tons, were with cargoes; the number cleared was 4,317, of 1,464,553 tons, of which 3,056, of 815,368 tons, were with cargoes. At Kiel the total number entered was 3,140, of 514,469 tons; cleared, 3,060, of 512,266 tons. At Lübeck the number entered was 2,866, of 542,809 tons; cleared, 2,862, of 546,328 tons. At Dantzig the number entered was 1,837, of 699,595 tons; cleared, 1,864, of 703,830 tons. At Königsberg the number entered was 1,590, of 326,827 tons; cleared, 1,698, of 369,614 tons.

The German merchant fleet on Jan. 1, 1898, comprised 2,522 sailing vessels, of 855,571 tons, and 1,171 steamers, of 969,800 tons. Of the sailing vessels 2,050, of 526,262 tons, and of the steamers 737, of 747,142 tons, belonged to North Sea ports, while 509 sailing vessels, of 76,703 tons, and 389 steamers, of 142,818 tons, belonged to Baltic ports. The total number of seamen was 42,428. Of the steamers 1,163 and of the sailing vessels 527 were built entirely of steel or iron. The number of vessels engaged in coasting and in inland navigation was at the same date 22,564, of which 21,945 had a total declared tonnage of 3,371,247 tons.

Railroads, Posts, and Telegraphs.—The railroads of the German Empire in the beginning of 1898 had a total length of 29,461 miles, all belonging to the Government, imperial or state, except 2,502 miles, of which 172 miles were operated by the Government. These figures do not include 2,012 miles not open to public traffic nor 819 miles of narrow gauge, of which the Government owned 390 miles. The capital invested in the railroads was 11,680,193,000 marks. The receipts in 1897 were 1,595,242,000 marks, and expenses 889,053,000 marks, showing net receipts equal to 6.05 per cent. of the capital. There were

transported 270,628,000 metric tons of freight, which paid 1,041,790,000 marks in 1897, and 646,461,000 passengers, paying 428,142,000 marks, not including 175,000 soldiers not paid for.

The imperial post office in 1897 forwarded 1,292,091,978 letters, 515,399,716 postal cards, 626,085,928 books and circulars, 984,174,761 newspapers, 41,507,744 samples, and post-office orders and registered letters remitting 25,865,972,482 marks; the Bavarian post office forwarded 136,921,360 letters, 32,483,120 postal cards, 57,229,693 books and circulars, 198,517,392 newspapers, 3,360,220 samples, and postal orders and letters remitting 1,166,487,285 marks; and the Württemberg post office forwarded 55,342,092 letters, 21,039,304 postal cards, 30,731,889 books and circulars, 49,137,301 newspapers, 1,316,926 samples, and orders and letters remitting 1,410,036,763 marks. The total traffic of all three services was 1,484,355,430 letters, 568,922,140 postal cards, 714,047,510 books and circulars, 1,231,829,454 newspapers, 46,184,890 samples, and post-office orders and registered letters of the aggregate value of 29,442,496,530 marks.

The length of telegraphs in the imperial postal district in 1897 was 74,013 miles, with 295,742 miles of wire; in Bavaria, 10,128 miles, with 30,800 miles of wire; in Württemberg, 3,372 miles, with 9,892 miles of wire; total, 87,513 miles of line and 336,434 miles of wire. The imperial lines forwarded 25,693,469 internal and 9,823,895 foreign telegrams in 1897; the Bavarian lines 2,249,248 internal and 584,769 foreign telegrams; the Württemberg lines 1,207,659 internal and 201,052 foreign telegrams; total, 29,150,376 internal and 10,609,716 foreign telegrams. The receipts of the imperial postal and telegraph services for 1898 were 324,783,298 marks, and expenses 290,956,745 marks; Bavarian receipts were 29,337,071 marks, and expenses 25,673,901 marks; total receipts for the empire, 367,839,846 marks; total expenses, 328,074,820 marks, leaving a surplus of 39,765,026 marks for the united services, the surplus of the imperial service being 33,826,553 marks, of the Bavarian service 3,663,170 marks, and of the Württemberg service 2,275,303 marks.

Dependencies.—The German possessions in Africa have an aggregate area estimated at 930,760 square miles, with about 10,200,000 inhabitants (see CAPE COLONY and SOUTH AFRICA, EAST AFRICA, and WEST AFRICA). In Asia Germany holds under a lease from the Chinese Government the naval station of Kiau-Chau Bay, on the Shantung peninsula. The leased land area is about 120 square miles, with 60,000 inhabitants. The neutral zone, over which the German Imperial Governor has control, is 2,500 square miles in extent, with 1,200,000 inhabitants. The town and harbor were occupied by a German naval force in December, 1897, transferred to Germany for ninety-nine years by treaty on March 6, 1898, and declared a German protectorate on April 27, 1898. A garrison of 1,500 marines and artillerymen is stationed there. The sum voted for administrative expenses in 1900 is 8,500,000 marks. The Government has acquired land from the Chinese owners with the object of establishing a European settlement after improving the harbor and declaring the place a free commercial port. German investors will have the privilege of working the Wiehsien and Pashan coal mines, about 100 miles inland, and of building railroads to the boundary of Shantung province through these coal fields and to Chin-Chao and Tsainan.

In the Pacific Ocean Germany possesses Kaiser Wilhelm's Land in New Guinea, having an area of about 70,000 square miles and a population

of 110,000, the Bismarck Archipelago, having an area of 20,000 square miles and 188,000 inhabitants, and the northern part of the Solomon Islands, having an area of 9,000 square miles and 89,000 inhabitants, all of which are administered by the German New Guinea Company; also the Marshall Islands and dependencies, having an area of 150 square miles and 13,000 inhabitants, which are administered by an imperial commissioner. There were 198 Europeans, of whom 71 were Germans, in the Bismarck Archipelago and the Solomon Islands in 1897. The areca and sago palms flourish in the protectorate, as well as the bamboo and ebony. Cotton, coffee, and tobacco have been planted by Europeans, and of the last a crop of 79,000 pounds was obtained. Coconut palms, numbering over 36,000, are carefully preserved, and copra is prepared by the natives, who barter it and trepang and pearl shells for trade goods. The local revenue for 1897 was estimated at 93,000 marks, the expenditure at 273,000 marks. The Imperial Government gave a subvention of 657,000 marks for 1899. In the Bismarck Archipelago there are 46,200 coconut trees. The chief products are copra and coconut fiber, but cotton is grown, yielding 77,360 pounds in 1897. The value of the imports for 1897 was 700,000 marks. The Solomon Islands export sandalwood and tortoise shell. The Marshall Islands had a European population in 1898 of 74 persons, of whom 43 were Germans. The chief commercial product is copra, of which 2,366 tons were exported in 1897. The port of Jaluit was visited during that year by 84 vessels, of 12,333 tons. The Bismarck Archipelago and Solomon Islands were visited by 47 steamers and 113 sailing vessels, having an aggregate burden of 52,679 tons.

Legislation.—The session of the Prussian Landtag witnessed a sharp contest between the Government and the Agrarians controlling the Conservative party, which has heretofore for a long period been distinctively the Government party. The subject of contention was the construction of a canal connecting the Rhine and the Elbe, an important artery in the system of internal water ways that was projected by the Prussian Government a long time ago and was regarded as a settled part of its policy. The Emperor attempted to break down opposition by the exhibition of his royal will and authority, and the curious outcome of his declarations was that the Junkers of Brandenburg, Pomerania, and East and West Prussia, who have been the champions of absolutism and the guardians of the royal prerogative for generations, derided his power and appealed to the Constitution they had fought against. The reason for their resisting the Government project with such determination was that the canal will benefit the iron and coal districts of Westphalia and the Rhine province at their expense, crushing out the primitive industries of their own provinces and stimulating the emigration of their agricultural population to the manufacturing centers of the west; furthermore, that it will facilitate the entrance of sea-borne grain and other agricultural produce from foreign countries into the central parts of Germany to compete with their own. The Clericals, whose adherents in Silesia have coal mines and factories, asked compensation for these as the price of their support. The proposed canal is the continuation of a series of canals that cross Germany from east to west, connecting the great rivers running from south to north, and so form new outlets for the products of the western provinces of Germany. The railroad, al-

though admirably planned and constructed, are already insufficient to transport the constantly increasing produce of the coal and iron districts. The canals are intended to facilitate not only internal and foreign commerce, but also military transport, and thus improve the defensive resources of Germany. The Prussian Government ordered a preliminary survey to be made as early as 1863. The project then met with violent opposition from local interests. The Franco-Prussian War prevented anything being done for some years. In 1877 the Government laid before the Landtag a memorandum on the water communications of Germany, and in the following year the necessary technical and commercial investigations were begun, with the result that in 1882 a scheme was drawn up by engineers for the construction of a canal from the Rhine to the Elbe. The proposals were laid before the Landtag in 1883, and they were rejected. In 1886 a bill for the construction of a canal between the Oder and the Spree was submitted to the Diet, and at the same time the Government again introduced the proposal for the Rhine-Elbe Canal. Both houses agreed to the construction of a canal connecting Dortmund with the Ems. A canal commission was intrusted with the execution of the project, and the canal, begun in 1892, was completed and opened to navigation in August, 1899, having a length of 160 miles, but built for less than 80,000,000 marks. As soon as the Dortmund-Ems Canal was decided upon the Government was urged to extend it westward to the Nile. Accordingly, this matter was laid, in April, 1899, before the Landtag in a comprehensive bill. The Government proposals include the construction of a canal through the valley of the Emischer from Herne to the Rhine, and of a feeder to supply it with water; the construction of locks at Heinrichsburg and Münster to improve the present Dortmund-Ems Canal; the construction of a central system from the Ems to the Elbe, to consist of a main canal from Bevergern to Heinrichsburg, two feeders to bring water from the Weser and the Leine, and eight branch canals to connect the main canal with Osnabrück, Minden, Wülfel, Hildesheim, Lehrte, Peine, Brunswick, and Magdeburg; also the works necessary to make the Weser from Bremen to Hameln suitable for canal traffic. The bill was opposed by the Conservatives in the Chamber of Deputies on the first reading, and was referred to a committee, which condemned it by a vote of 18 to 10. The Diet adjourned in July for six weeks, and at the conclusion of the debate, after the re-assembling of the Chamber in August, both canal bills were rejected by large majorities. The Government, determined on crushing opposition if conciliatory means failed, issued an edict menacing officials who engaged in political opposition to measures advocated by the ministers with disciplinary penalties. When the Landrätthe, or rural magistrates, in the east still continued to participate in the agitation against the canal project, the majority were dismissed. As the ones selected for discipline were those who voted against the bill as members of the Diet, the Radicals raised a protest against the action of the Government as constituting an infraction of the Constitution, which guarantees the parliamentary independence of all Deputies. In consequence of the defeat of their measure in the Landtag, Freiherr Von der Recke and Dr. Bosse resigned their portfolios. Freiherr Von Rheinbaben succeeded the former as Minister of the Interior on Sept. 4, and Herr Studt was appointed Minister of Education and Worship in Dr. Bosse's place.

The Emperor's special measure for the restriction of strikes and the regulation of labor contracts, making certain forms of strike agitation a criminal offense, and hence called the penal servitude bill, when introduced by the Government into the Reichstag was opposed by large majorities. The Reichstag even refused to submit it to a committee or to consider it in any way previous to its adjournment in July. The bill contained provisions against picketing, and sought to limit and impair the right of coalition. The punishment of penal servitude was to be applied only when acts of incitement or intimidation lead to a strike or a lockout, endangering the public peace or the security of life and property. Not only Socialists and Radicals, but Clericals and National Liberals condemned it utterly, and the Minister of Commerce estranged some of the regular supporters of the Government when he said that he would like to have the power to stop every big strike. The bill was introduced to make good a declaration of the Emperor, who said in one of his public speeches that he would enforce penal servitude if necessary to protect workmen against those who would prevent them from working or would incite them to strike. The Clericals and other parties, except the Conservatives, have been anxious to prove that they desire to protect the rights and advance the interests of the laboring classes no less earnestly than the Social Democrats, and therefore none of the restrictive measures introduced to carry out the latest social policy avowed by the Emperor has obtained a majority, and the failure of the penal-servitude bill was more lamentable than that of the antirevolutionary bill of 1895 or that of the bill introduced into the Prussian Landtag in 1897, aiming to restrict the right of political association and of public meeting. The bill did not make mere incitement to striking punishable, but it prescribed penalties for those who by the exercise of physical force, by menaces, or by insults endeavor to induce any person to participate in or to abstain from association for the purpose of obtaining better conditions of work or wages. Undue pressure brought upon employers to induce them to withhold work from particular categories of persons was one of the offenses defined, though it was left open to employers or employed to agree among themselves not to employ or work for certain categories of persons.

An invalid and old-age insurance bill, amending and extending the existing act, was brought before the Reichstag in June, and was carried by a practically unanimous vote. The Socialists, who had voted against the original bill ten years before, voted solidly for the revision, as did the Radicals, who opposed the scheme when first advocated by Prince Bismarck as being a long step toward state socialism. Facts regarding the movement of population and the earning capacity of the laboring people in different parts of the country had come to light that show glaring inequalities in the operation of the system. The pension offices of the agricultural districts especially were at a disadvantage, owing to the enormous migration of the young and strong to the industrial and commercial sections. They had to provide for four times as large a percentage of persons eligible for old-age pensions—that is, seventy years old and upward—as the offices situated in manufacturing and mining districts, and even the invalid insurance to be paid in agriculture and forestry was 75 per cent. greater, the working people engaged in mechanical branches having through their sick funds

and other facilities for procuring medical attendance and their better housing and more intelligent way of living a smaller ratio of sickness than the farm laborers, especially those of the east of Prussia, whom the Emperor pronounced to be worse sheltered than the pigs and the cattle. The pension office in Berlin had accumulated a surplus so large that the interest of it is sufficient to pay the demands upon it, while that of East Prussia had to struggle with a constantly growing deficit. The revision bill, as passed by the Reichstag, provides that two fifths of the income of all the offices shall go into a common fund, out of which 75 per cent. of the old-age pensions shall be paid, the remaining three fifths being treated still as the special fund of each office. The Government had intended to turn three fifths of the receipts into the national fund, and to pay the whole of the old-age pensions out of this, but that was a greater sacrifice than the manufacturing communities were willing to make. The bill also increases the minimum old-age pension from 106 to 110 marks a year and the maximum pension from 190 to 230 marks. To each pension the Imperial Government will contribute 50 marks as a present. The invalid pensions have, under the old law, been calculated by taking a fixed sum of 110 marks, including the 50 marks from the imperial treasury, and adding a sum, reckoned in pfennigs, obtained by multiplying the number of weekly contributions paid in by the applicant by 2, 6, 9, and 13 for the different classes of wage earners. The new law makes the multipliers 3, 6, 8, 10, and 12, and the fixed sum is also graded according to five wage classes, which receive 60, 70, 80, 90, and 100 marks respectively in addition to the imperial contribution. The old law required complete invalidity as the condition of receiving a pension, whereas the loss of two thirds of the earning capacity entitles one to a pension, which begins at the end of six months, instead of a year of inability to work. Furthermore, there has been a reduction of the length of time that the applicant must have paid premiums in order to receive a pension, which is now two hundred weeks for invalid and twelve hundred for old-age pensions, instead of two hundred and thirty-five and fourteen hundred and ten weeks respectively. The new act extends compulsory insurance to master workmen and technical artisans not employed in factories, salesmen, and teachers, but only when their annual salary is less than 2,000 marks; for persons of these classes receiving between 2,000 and 3,000 marks voluntary insurance is provided, as also for employers hiring less than three workmen. Persons who have passed out of the classes requiring compulsory insurance may continue the insurance at their own expense. The new law provides greater facilities for having persons treated in hospitals before the disease has advanced so far as to render them invalids, particularly in cases of tuberculosis. The Government bill provided for the organization of local branch pension offices, and the Reichstag approved this, but made it optional with the state authorities to organize them or not. It has been proposed to consolidate the 31 pension offices into one central administration, and thus reduce the administrative expenses, which now consume 17 per cent. of the funds that pass through the offices.

A copyright amendment bill protects articles in newspapers intended to instruct or amuse and scientific and technical articles, but not political articles, reports of proceedings, news of the day, or miscellaneous intelligence. Separate articles

in newspapers, however, can only be reprinted with indication of the source from which they are taken. Official documents that are not laws, codes, edicts, or judgments are also protected. The bill prohibits the publication of private letters, diaries, or memoranda without express permission of the author or his representatives. Reports of speeches delivered at proceedings of law courts or of political, communal, and ecclesiastical bodies may not be reproduced in collections consisting mainly of the speeches of one speaker, the object being to reserve for the public speaker the right to collect his own speeches. The copyright of a work for thirty years after the death of the author is still maintained. In cases of posthumous publications the period is ten years. The duration of the copyright of an unpublished work is unlimited. The copyright of musical works is extended to fifty years, in view of the fact that years frequently elapse before they are appreciated. German subjects can secure German copyright for their productions even if these are published in foreign countries. Foreigners can obtain copyright if they publish their works in Germany.

A bill to increase the army on the peace footing by 26,576 men, the increase to take place between 1899 and 1902, was debated in the Reichstag in January. Opposition was offered chiefly by the Social Democrats and the Radical Left. The Radical leader, Eugen Richter, opposed the increase in artillery on the ground that it would only lead to a like increase on the part of France and Russia. The Budget Committee by narrow majorities approved the increase in both field batteries and siege artillery. The increase in the strength of the infantry and the creation of three new army corps were recommended by substantial majorities; also the proposal to reorganize the railway, field telegraph, and balloon troops. The Government proposal to increase the cavalry from 472 to 482 squadrons was disapproved by the Budget Committee, and its whole attitude toward the army bill occasioned much concern to the ministry. The Government demanded an increase in the strength of frontier battalions from 639; in 28 other battalions, including the guards, from 573 or 501 to 660; in the new battalions formed in 1897 from 501 to 573 men. The debate drifted from the specific changes to the future average strength of the German infantry battalion. The Clericals insisted on a deduction of 7,006 men from the total increase proposed by the Government, and they demanded that the new strength be attained a year later than the bill proposed. The bill as it finally came out of the hands of the Budget Committee conceded most of the Government demands. It established three more army corps, to be composed of men drafted from corps that are above the normal strength. The cavalry was increased to 482 squadrons, although 17 of them remain detached under the designation of *Melderreiter*, or dispatch riders, instead of being incorporated in new cavalry regiments, as the Government planned. When the increase of the infantry to 502,506 men came to a vote in the Reichstag there was a majority against it. The Emperor thereupon authorized the Minister of War to say that the Government accepted the modifications that the Budget Committee had made, and in that form the bill was finally adopted by a vote of 222 to 132.

After lengthy discussion and determined opposition on the part of Conservatives and Agrarians, who wished a Prussian state bank, the charter of the Imperial Bank was renewed by the Reichstag for another period of ten years. The capital

of the bank will be 180,000,000 marks. The shareholders, who will not be personally responsible for any of the bank's debts, will receive a dividend of 3½ per cent. from the profits of the bank, and of the surplus profits above this dividend 20 per cent. is set aside to form a reserve fund until this fund shall amount to 60,000,000 marks. Of the remainder 25 per cent. goes to the shareholders and 75 per cent. to the Imperial Government. The bank will be allowed to issue notes not covered by reserves to the amount of 450,000,000 marks, and this issue is not subject to taxation. After Jan. 1, 1901, the bank will not be allowed to discount any bills at a lower rate than that published by the bank whenever the rate stands at or above 4 per cent., and the same prohibition applies to private banks; but when the published rate is less than 4 per cent. the Imperial Bank may discount ¼ per cent. lower, in which case private banks may discount ½ per cent. lower than the bank's rate.

The expulsion of Danes from northern Schleswig was the subject of interpellations in the Prussian Diet. The attempts to Germanize the 70,000 Danes residing there by the prohibition of the use of the Danish language in the schools, and even the teaching of Danish altogether, and by a succession of similar measures, has roused a spirit of resistance among the people affected, and kept alive the agitation for the reunion of Schleswig with Denmark. By recent decrees Danes have been expelled in large numbers, even domestic servants, whom their employers preferred to Germans. Still more recently German farmers have obtained lands in the district with the help of the Prussian Government. To counteract this, Danes have raised money by private subscriptions to enable embarrassed proprietors to keep their lands or to settle farmers of Danish blood upon them.

The treaty with Spain for the acquisition of the Caroline Islands was sanctioned by the Reichstag, and the financial measures for carrying it into effect were approved, Radicals and Socialists alone opposing. Spain ceded the Carolines, together with the Pelews and the Ladrões, excepting the island of Guam, for the sum of 25,000,000 francs, Germany agreeing to grant to Spanish trade, agricultural enterprises, and religious orders the same facilities, rights, and liberties as are enjoyed by German subjects. Spain reserved the right to establish a coaling station for her war and trading fleets in each of the groups, and to retain the same even in the event of war. The three groups lie between the Philippines and the Marshall Islands. They are composed of coral islands, producing mainly copra. The Pelews, 26 in number, have 10,000 inhabitants, of whom 8,000 live on the island of Babelthua. The Carolines consist of 500 or more coral reefs, having a population of 35,000 natives and 900 whites. Yap, Ponape, and Kusai are the only ones that produce much copra. The northern division of the Ladrões consists of volcanic islands that are in a state of active eruption and contain no inhabitants. Of the southern division Guam, which has a fortified harbor, belongs to the United States; it contains 8,561 of the 10,172 inhabitants. The annual expenditure of the Imperial Government for the administration of the new possessions is estimated at 220,000 marks, after a preliminary nonrecurring expenditure of 355,000 marks. The administration is subordinated to that of German New Guinea.

By a commercial convention Germany agreed to give Spain the benefits of the conventional tariffs till 1904, Spain having already conceded

most-favored-nation treatment to Germany when the tariff war between the two countries came to an end in 1896. A blow was aimed at American trade by the addition of an amendment to a meat-inspection bill, prohibiting the importation of prepared meat, such as sausages, canned meat, and the like, and only permitting fresh meat to be brought into Germany in the form of whole carcasses. The avowed object of these regulations was to keep out all meat which the inspectors at the customhouse could not guarantee to be free from taint or disease. This and other measures called sanitary, such as the exclusion of American fruits, seemed to have been prompted in some degree by the Agrarian protectionists, and to have something of a retaliatory character also and to be connected with the controversy raised by Germany over some of the schedules of the Dingley tariff, the sugar duties, and tonnage dues. A commercial convention on the most-favored-nation treatment granted to Great Britain and to British colonies pending the negotiation of a new commercial treaty lapsed on July 30, 1899, but was extended for another twelve month, still with the exclusion of Canada, which has adopted a tariff giving preferential treatment to Great Britain, the purpose for which the Anglo-German treaty of 1865 was denounced by Great Britain.

When the Reichstag reassembled in November the Government brought forward its new programme of construction, by which the German navy is to be nearly doubled. The sixennate act passed in 1897 fixed the annual rate of expenditure at 60,000,000 marks for six years, and prescribed that during the last three years of the period construction should be reduced to one ship a year. The new bill proposed to increase the annual rate of expenditure to 85,000,000 marks a year for the remainder of the sixennate, and to make the war fleet stronger in 1903 by six ships than the programme of 1897 contemplated. For fourteen years after the termination of the sixennate it is proposed to construct from three to three and a half powerful war ships a year, giving the navy in 1917 an addition of 54 to 63 battle ships and armored cruisers.

The protracted contest over the succession to the throne of Lippe-Detmold was settled by a decision given by the Federal Council on Jan. 5, 1899, which was really a compromise. The matter was first referred to a court of arbitration, presided over by the King of Saxony, which rendered a decision that ousted from the regency of the principality the Emperor's brother-in-law, Prince Adolf of Schaumburg-Lippe, upon whom the position had been conferred with the sanction of the Lippe-Detmold Diet. Graf Ernst of Lippe-Busterfeld was made regent, and the powerful friends of the prince whom he supplanted acquiesced in the decision, though with bad grace. The Emperor having denied him the military honors customarily paid to the head of a German principality, he laid a protest before the sovereign prince of the German Empire. At the same time his opponents contested the right of his children to succeed to the throne on the ground that their mother was not of princely rank. The question of military honors the Federal Council did not decide at all, and this tribunal, while affirming its competence, refrained from pronouncing judgment in the matter of the contested succession.

The succession to the duchy of Saxe-Coburg and Gotha was renounced by the Duke of Connaught in favor of the Duke of Albany, for whom the Prince of Hohenlohe-Langenburg was appointed regent.

GIFTS AND BEQUESTS. The following list comprises the most notable gifts and bequests for public purposes of \$5,000 each and upwards in amount or value that were made, became operative, or were completed in the United States in 1899. It excludes the ordinary denominational contributions for educational and benevolent purposes, all State and municipal appropriations to public and sectarian institutions, and the grants of Congress for various measures of relief. The known value of the gifts and bequests here enumerated exceeds \$62,750,000—without a doubt the largest amount ever devoted to philanthropic purposes, as individual offerings, in any country in one year. Many gifts and bequests of less than \$5,000, the real but unreported value of numerous educational buildings and other undertakings, the money contributed by our citizens for the relief of suffering caused by the tornado in Puerto Rico, the spontaneous offerings of American women to provide and equip the hospital ship *Maine* for the British military service in the South African war—all these would probably increase the total by at least \$3,000,000, and yield an aggregate of nearly \$66,000,000. The amount here accounted for under the necessary restrictions, however, is a grand evidence of the spirit of helpfulness and sympathy that pervades American citizenship.

Albright, John J., Buffalo, N. Y., gift to the Botanical Garden of that city, a collection of rare palms and tropical plants, valued at \$40,000, and two conservatories constructed mainly of steel and glass.

Allen, Dudley P., and sister, **Mrs. Solon Severance**, Cleveland, Ohio, joint gift to Oberlin College, real estate valued at \$7,000.

Almy, James F., Salem, Mass., bequests to the Young Men's Christian Association of Salem and Boston University each \$5,000; conditionally to the latter, \$20,000.

American Bible Society, gift from friend, name withheld, \$10,000.

American Board of Commissioners for Foreign Missions, gift from anonymous friend, \$10,000.

Ames, Maria E., Concord, Mass., bequests to the American Board, Massachusetts Bible Society, American Missionary Association, Congregational Sunday School and Publishing Society, Congregational Church Building Society, American Sunday School Union, Massachusetts Home Mission Society, and Massachusetts Society for the Prevention of Cruelty to Animals, an aggregate of \$26,000, and to the foregoing, with two exceptions, the residue of her estate.

Andrews, Wallace C., New York, bequest for establishment of an institution in Ohio for the free education of girls, half of his estate of more than \$1,000,000.

Appleton, J. H., Springfield, Mass., gifts to the Public Library building fund and two local hospitals, each \$5,000.

Appley, Mary Effiuye, Honesdale, Pa., bequest to Lafayette College for scholarships for students for the ministry or mechanical professions, \$30,000.

Armour, George A., New York, gift to Princeton University, for classical section of new library, \$10,000.

Armour, Herman O., New York, gift to Whitworth College, at Sumner, in the State of Washington, real and personal property aggregating in value \$20,000.

Armour, Philip D., Chicago, gift to endowment fund of Armour Institute, \$750,000, making total gift to the institute \$2,250,000.

Armstrong, Thomas, Plattsburg, N. Y. (died in 1895), bequest to Union College, Schenectady, for endowment of chair of Sociology, annual prizes, and scholarships, an estate now valued at \$200,000, made available by decision of the Court of Appeals on contest.

Arnold, Howard Payson, Boston, gift to Emmanuel Church, in memory of his wife, a large stained-glass window, representing Christian at the Palace Beautiful, cost \$5,000.

Atwater, Mrs. E. S., Poughkeepsie, N. Y., class of '77, gift to Vassar College for the infirmary, \$12,000.

Austin, Edward, Boston, bequests to Harvard University, \$500,000; Massachusetts Institute of Technology, \$400,000; Radcliffe College, Roanoke College, and Tuskegee Normal and Industrial School, each \$30,000; other public purposes, \$110,000—in all, \$1,100,000, made available by compromise of heirs and probate of will, March 23, 1899.

Ayer, Frederick, New York, gift to the Young Men's Christian Association of Lowell, Mass., \$5,000.

Baker, Melissa, Baltimore, bequests to charitable and religious institutions, \$7,400.

Baldwin, Dwight H., Cincinnati, bequests to the Home and Foreign Missionary Societies of the Presbyterian Church, each \$225,000.

Ballard, William H., Indianapolis, Ind., gift for the benefit of the homeless office girls of that city, the Bertha Ballard Home, cost \$25,000.

Barbadoes, Frederick G., Washington (a negro of large means), bequests to each of five institutions for the benefit of his race, \$1,000; to six others, each \$500; and to Tuskegee University, Alabama, Lincoln University, Pennsylvania, and Manassas Institute, Virginia, the residue of his estate in equal parts.

Barker, Ezra, Stratham, N. H., bequest to the local Baptist society, \$10,000.

Barry, Mrs. William I., Passaic, N. J., gifts to First Presbyterian Church, \$10,000; Second Church, \$2,000; Young Men's Christian Association, \$3,000.

Bates, Elizabeth H., M.D., Port Chester, N. Y., bequest to the medical department of the University of Michigan, her personal and real properties, aggregating \$114,500, for a professorship of Diseases of Women and Children, on condition that the university receive female students. The university accepted the condition in 1899.

Beecher, Prof. Charles E., Sheffield Scientific School of Yale University, gift to the university for the Peabody Museum, his collections of fauna and geological specimens, numbering upward of 100,000 pieces, and pronounced by experts to be invaluable.

Benjamin, Park. See United States Naval Academy, in this article.

Bennett, Thomas G., New Haven, gift to Yale School of Fine Arts, \$5,000.

Benoist, Joseph, Kansas City, Mo., bequests to charitable institutions in that city and St. Louis, a total of \$150,000.

Berea College, Berea, Ky., gifts from friends to secure pledge of \$50,000 from Dr. Daniel K. Pearsons, \$150,000.

Bernheim, I. W., and **Bernard**, Louisville, Ky., joint gift to the city, a bronze statue of Thomas Jefferson by Ezekiel, cost \$50,000.

Berry, George B., Baltimore, bequests to Woman's College, \$50,000; other institutions, \$3,500; contested.

Berwind, Edward J. See United States Naval Academy, in this article.

Bigelow, Albert S., Boston, gift to the Church of the Advent, memorial window, cost \$10,500.

Billings, Robert C., Boston, bequests to Harvard University, Massachusetts Institute of Technology, and Boston Museum of Fine Arts, each \$100,000; Institute of Technology (special fund), Massachusetts General Hospital, New England Hospital for Women and Children, Massachusetts Eye and Ear Infirmary, and Children's Hospital, each \$50,000; Perkins Institution for the Blind, American Unitarian Association, Boston Young Men's Christian Union, Home for Aged Men, and Hampton Normal and Industrial Institute, each \$25,000; Tuskegee Normal School, Atlanta University, and sixteen public and charitable institutions in and around Boston, each \$10,000; and to his executors, for disposition to such charitable purposes as they may select, over \$600,000, making his total bequests \$1,500,000.

Blaine, Mrs. Emmons, Chicago, gifts for the establishment of two educational institutions in that city, an estimated aggregate of \$1,000,000. The largest is a School of Pedagogy, comprising a kindergarten, primary and grammar schools, high school, and junior college, located near Lincoln Park; the other is a thoroughly appointed school for the children of the poor, on Milwaukee Avenue. Both institutions will be opened early in 1900. Mrs. Blaine also gave \$25,000 to defray the expenses of the fourteen members of the faculty of the School of Pedagogy on a preparatory study tour of Europe.

Blair, John Insley, Blairstown, N. J., bequests to the Blair Presbyterian Academy, \$115,000; Presbyterian Church at Blairstown, \$10,000; church at Oxford, \$15,000; Methodist Church, Blairstown, \$1,000. See OBITUARIES, AMERICAN.

Blake, Anna S. C., Santa Barbara, Cal., bequests to trustee for a home for convalescents and invalids, her "Miradero" estate and \$80,000 for its support; and the Santa Barbara Cottage Hospital, Philadelphia Orthopaedic Hospital, and Massachusetts General Hospital, each \$10,000.

Borden, C. D., New York, gift to the new gymnasium fund of Phillips Andover Academy, \$20,000.

Bourne, Emily H., New York, gift to Barnard College for scholarships, \$6,000.

Bradley, Mrs. Elizabeth, New Haven, bequests, made available by the death of her brother, Josephus Forbes, to St. Paul's Church and the Seamen's Bethel, both of that city, an estate that yielded the former \$306,397 and the latter \$153,796.

Bradley, Mrs. Lydia, founder of Bradley Polytechnic Institute, Peoria, Ill., gift to the institution, deeds for all of her property in Peoria County, estimated at more than \$1,000,000. She had previously given 20 acres of ground and \$500,000 for buildings and equipment.

Brimbecom, Mrs. Mary E., Boston, bequests to State and local institutions, \$3,300 free and \$5,000 conditional.

Brinton, Daniel G., gift to the University of Pennsylvania, his great collection of books, pamphlets, and manuscripts relating to the aboriginal languages of North and South America, and nearly 200 volumes of bound pamphlets on the ethnology of American Indians. See OBITUARIES, AMERICAN.

Brown University, Providence, R. I., gifts from three friends, names withheld, \$25,000, \$20,000, and \$20,000 respectively.

Bruce, Catherine Wolfe, New York, gift to Columbia University, for special astronomical investigations, \$10,000.

Bush, W. H., Chicago, Ill., gift for a Methodist old folks' home, in that city, a building site and \$20,000.

Bushnell, Asa S., Springfield, Ohio, gifts to the Ohio Masonic Home and the Young Men's Christian Association of Springfield, each \$10,000.

Callaghan, Patrick, Poughkeepsie, N. Y., bequests to the Society for the Protection of Destitute Roman Catholic Children, convent at Morristania, Foundling Asylum of the Sisters of Charity of New York City, Home of the Good Shepherd in same city, and St. Mary's Church in Poughkeepsie, an aggregate of \$175,000.

Campbell, T. Pearsall, East Orange, N. J., gift to St. Paul's Protestant Episcopal Church there, \$5,000.

Carnegie, Andrew, New York, gifts, many under conditions that were agreed to or fulfilled during the year; the Carnegie Institute, Pittsburgh, Pa., for enlargement of building, \$1,750,000; Cooper Union, New York, for founding a mechanics' day art school, \$300,000; the following cities for a public library: Washington, D. C., \$350,000; Atlanta, Ga., \$125,000; Lincoln, Neb., \$75,000; McKeesport, Pa., \$50,000; Connellsville, Pa., \$50,000; Steubenville, Ohio, \$50,000; East Liverpool, Ohio, \$50,000; Fort Worth, Texas, \$50,000; Emporia, Kan., \$30,000; Davenport, Iowa, \$50,000; Cheyenne, Wyo., \$50,000; Austin, Texas, \$50,000; San Diego, Cal., \$50,000; and Duluth, Minn., \$50,000; the Pennsylvania State College, for a library building, \$100,000; Stevens Institute of Technology, Hoboken, N. J., for new laboratory building, \$50,000; Mechanics' Institute, New York, \$25,000; Newport, Ky., for a public library, \$20,000; Tucson, Arizona, for public library, \$25,000; Virginia Mechanics' Institute, Richmond, for new building, \$10,000; ladies of the "X. X. I.," Denison, Texas, for first woman's club building in the State, \$1,700; New York Zoological Society, for building fund, \$5,000; and Public Library, Erie, Pa., \$5,000. This list, which aggregates \$3,282,000, is not a complete one, comprising only his most notable gifts; probably other similar benefactions amounted to \$1,000,000 more. In addition to these gifts, Mr. Carnegie made several to foreign institutions, amounting to about \$500,000, of which the most conspicuous one was that of \$250,000 to Birmingham (England) University to promote scientific education. His total gifts and pledges in the year amounted to about \$5,000,000.

Catholic University of America, Washington, D. C., gifts from friends, funds for erection and equipment of Holy Cross College, dedicated Oct. 12, and the Monastery and College of the Holy Land, dedicated Sept. 17; also from the Catholic Knights of America, for a chair of English Literature, \$50,000, and the Catholic Knights of Columbus, for a chair of American History, \$50,000.

Chapelle, Archbishop P. L., New Orleans, gift from friends, an archiepiscopal residence, cost \$18,000.

Chesebrough, Nicholas H., M. D., Summit, N. J., bequests to seven denominational institutions, each \$500; Methodist General Hospital, Brooklyn, \$5,000; First Methodist Church, Summit, \$1,000; and to trustees for a Chesebrough Protestant Orphan Asylum at Summit the residue of his estate, amounting to over \$200,000.

Chicago Art Institute, friends of, gift to extinguish debt, \$100,000. See White, Mrs. Catherine M., in this article.

Chipman, George W., Boston, bequests to various Baptist institutions, the reversion of \$50,000.

Cisco, Mrs. Caroline A., New York, bequest to the Church of the Holy Communion, \$10,000.

Clapp, Lucius, Randolph, Mass., gift to the Brockton Hospital, \$5,000.

Clark, Mary J., New York, bequests to Baptist institutions, \$5,000.

Clayton, George W., Denver, Col., bequest to the city for an orphans' college, \$1,000,000.

Clemmons, E. T., Forsyth County North Carolina, bequest to the Moravian Church for new edifice and schoolhouse, \$100,000.

Columbia University, New York, gifts from friends, 63 new scholarships at \$5,000 each; for the library, \$14,821; total gifts of the year for specific purposes, \$73,794; increase of permanent endowment, \$490,417. See also Curtis, George William; Dyckman, Isaac M.; Low, Seth; Proudfit, Alexander M.; Schurz, Carl; Seidl, Anton; Seuff, Charles H., in this article.

Converse, John H., Philadelphia, gifts to the University of Vermont, for endowment of chair of Commerce and Economics, \$50,000; for new gymnasium fund, \$5,000.

Coolidge, Prof. Archibald, Harvard University, joint gift with his father to the University Library, a collection of 10,000 volumes treating of the Crusades.

Coolidge, Thomas Jefferson, Boston, gift to Harvard University for debating prizes, \$5,000.

Cooper, Rev. Edmund D., D. D., Astoria, N. Y., bequests for theological scholarships to the University of the South, General Theological Seminary in New York, and the Washatah Home in Wisconsin, each \$5,000.

Cooper, Edward, and **Abram S. Hewitt**, New York city, joint gift to Cooper Union, \$200,000.

Crane, Job S., Newark, N. J., bequests to local charitable institutions, \$10,000, and residue of his estate.

Crary, Mrs. Horace H., Binghamton, N. Y., bequests to the Woman's Missionary Society of the Methodist Episcopal Church and the Methodist Episcopal Hospital in Brooklyn, each \$25,000; Freedmen's Aid Society of the Methodist Episcopal Church, \$15,000; and the Missionary Society and Wyoming Annual Conference of the same church, each \$10,000.

Crocker, Mrs. George C., San Francisco, Cal., gift to the Hopkins Art Institute in that city, the Benizoni marble group of statuary, The Fall of Pompeii, for which the late Mr. Crocker paid \$20,000.

Crocker, Richard, New York, gift for the poor, \$5,000.

Cumston, Charles McLoughlin, Boston, gift to town of Monmouth, Me., funds for a combined town hall, library, and opera house, estimated cost \$20,000.

Cupples, Samuel, St. Louis, gifts to Washington University, a mechanical and electrical engineering building, cost \$150,000; building for civil engineering and architecture, cost \$100,000; and for endowment of the School of Engineering and Agriculture, \$150,000.

Curtis, George William, Memorial Committee, gift to Columbia University, for a fellowship in political science, \$10,000.

Daly, Charles P., New York, bequests to the American Geographical Society, a number of historical relics, his books and pamphlets on geographical, ethnological, and anthropological subjects, and \$5,000; the University of the City of New York, his books and pamphlets relating to the law or literature; the New York Historical Society, \$5,000; Northern Dispensary of New York, \$5,000; New York Association for Improving the Condition of the Poor, \$5,000; Metropolitan Museum of Art, all his works of art which he had given to his wife, who died before him; and the New York Botanical Society, the reversion of \$20,000. See OBITUARIES, AMERICAN.

Daly, Rev. P. J., pastor of St. Francis de Sales Church, Roxbury, Mass., gift for a free industrial school for young women, \$50,000.

Davis, Henry G., Elkins, W. Va., gift to the State, ground, building, and equipment for a home for orphan children of the State.

Dickson, Mrs. James B., Yonkers, N. Y., gift to St. Paul's Protestant Episcopal Church for new building site, property valued at \$15,000.

Dodge, William E., New York, gift to endowment of the National Academy of Design, \$5,000.

Donnelly, Rev. E. J., Flushing, N. Y., gift to his church, St. Michael's, for a cemetery site, ground worth \$12,000.

Drew Theological Seminary, Madison, N. J., gift from friends, new administration building and chapel, cost \$100,000; dedicated Dec. 5.

Duke, Benjamin N., Durham, N. C., gift to Trinity College there, for endowment and library funds, \$50,000.

Dwyer, Mary, Philadelphia, bequest to Roman Catholic charitable institutions, the bulk of an estate of \$55,000.

Dyckman, Isaac M., New York, gift to Columbia University, \$10,000.

Eaton, Dorman Bridgman, New York, bequests to Harvard University for a chair of the science of Government, \$100,000; Columbia University, for a chair of Municipal Science and Administration, \$100,000; the New York Society for the Suppression of Vice, \$25,000; New York Skin and Cancer Hospital, \$10,000; other institutions, \$5,600. See OBITUARIES, AMERICAN.

Educational Alliance, New York, gifts from friends for endowment, \$100,000.

Ellis, Calvin, M. D., Cambridge, Mass., bequests, to Harvard University for its college and medical school, an aggregate of \$140,000; also his sister, Miss **Lucy Ellis**, bequest of property valued at \$90,000, to be added to his bequest. Dr. Ellis was dean of the medical school. He died in 1883; will probated in September last.

Ellis, Lucy, Boston, bequests to the Museum of Fine Arts, \$10,000 and a choice of her works of art, and to Harvard University, her city residence, real estate in Maine, and her residuary estate.

Elting, Mrs. Luther, Poughkeepsie, N. Y., bequest to Vassar College, for Elting scholarship, \$8,000.

Emanu-El Sisterhood of Personal Service, New York, gifts from Jewish supporters for a home, \$50,000.

Fahnestock, Harris C., New York, gift to the New York Post-graduate Hospital, for new training school for nurses, \$100,000.

Farar, Isaac B., Malone, N. Y., bequest for establishment of an old women's home there, ground, building, and \$10,000.

Farnham, Mrs. H. P., New York city, gift to the town of Dublin, N. H., a public library building, cost \$20,000.

Fellows, Edward Barry, New York, bequests to the Chapin Home, New York State Ministerial Relief fund, University Ministerial Relief fund, and Clinton Liberal Institute, each \$3,000. See OBITUARIES, AMERICAN.

Fenno, Mrs. Isaac T., Boston, gift to the Massachusetts Homeopathic Hospital, \$5,000.

Ferry, Hon. D. M., Detroit, gift to Vassar College, \$8,000.

First Presbyterian Church, New York, gift from a woman friend, whose name was withheld, \$50,000.

Fisher, Elizabeth B., Boston, bequests paid to New England Hospital for Women and Children, Roxbury; Roxbury Home for Aged Women,

Children's Mission for Children of the Destitute, Boston Young Men's Christian Association, American Unitarian Association, and Home for Aged Men, each an equal share of \$62,346.

Fiske, Mrs. Josiah M. See Harding, Mrs. Charles L., in this article.

Flower, Roswell P., New York, bequests to St. Thomas's parish, New York, and Trinity parish, Watertown, each \$10,000. During the last year of his life his philanthropic gifts exceeded \$1,000,000. See OBITUARIES, AMERICAN.

Ford, Daniel Sharpe, Boston, bequests to the Baptist Social Union, \$350,000; Museum of Fine Arts, Boston Public Library, and Boston City Hospital, each \$6,000; Boston Young Men's Christian Association and Young Women's Christian Association, each \$7,000; Children's Aid Society and Children's Hospital, each \$5,000; Ruggles Street Baptist Church, \$20,000 a year for two years; eight Baptist associations, the residue of his estate; and to the Baptist Social Union buildings and real estate valued at \$592,000. See OBITUARIES, AMERICAN.

Frick, Henry C., Pittsburg, Pa., gift ordered for the United States Government, to be hung in the Cabinet room of the White House, a painting of the signing of the peace protocol between the United States and Spain, by Theobald Chartran, of France, cost \$20,000. The painting reached New York in December, and was expected to be sent to the Paris Exposition before being permanently placed.

Furber, Dana L., D. D., Newton, Mass., bequests to the First Church, of which he was pastor for thirty years, \$7,500; American Board and Massachusetts Home Missionary Society, each \$5,000; Congregational Church Building Society, \$2,000; and American Board and Massachusetts Home Missionary Society, equal shares in his residuary estate.

Gee, Hiram, D. D., bequest to Syracuse University, residuary estate (\$30,000), became available in August, 1899.

Georgia State Federation of Women's Clubs, gift to the New York Teachers' College, for a Georgia fellowship, \$9,000.

Gibbes, James S., Charleston, S. C., death of, released to the city the residuary estate (\$100,000) of his father, bequeathed for an art school and a woman's library nearly twenty years ago.

Gilmore, E. D., North Easton, Mass., gift to Clark School for Deaf Mutes, Northampton, for a gymnasium, \$10,000.

Girard, Ellen E., New York, bequests to Presbyterian institutions, the bulk of an estate of \$16,000.

Goddard, Mrs. Mary P., Newton, Mass., bequests to Tufts College, \$60,000; Every Day Church in Boston, \$10,000; and Universalist institutions, \$100,000.

Gould, Helen M., New York, gift to Vassar College, \$8,000.

Gould, Leonard, Chicago, bequests to Chicago Theological Seminary, American Sunday School Union, American Board, Foundlings' Home, and Young Men's Christian Association (the last two in Chicago), each \$10,000; and Illinois School of Agriculture and Manual Training, \$5,000.

Grafton, Bishop Charles C., Fond du Lac, Wis., gifts to the Protestant Episcopal parish of Fond du Lac and Grafton Hall, a school for girls there, each \$25,000.

Graves, Nathan F., Syracuse, N. Y., bequests, made available in 1899 by decision of the Court of Appeals, to Syracuse University, \$10,000; and to the city for a home for aged indigent people, \$400,000.

Hackley, Mrs. C. B., New York, gift to the Unitarian Association for a school for boys, her estate at Tarrytown. She also agreed to support it for five years.

Halstead, John, New York, bequests to eight local institutions, each \$2,000; to two others, each \$2,500; and to Cooper Union, the reversion of \$24,000.

Hamilton College, Clinton, N. Y., gift from friend, name withheld, funds for a new Hall of Philosophy.

Hanna, H. M., Cleveland, Ohio, gift to Medical college of Western Reserve University for a chair of Medical Jurisprudence, \$12,000.

Harding, Mrs. Charles L., Cambridge, Mass., bequest for a home for aged couples, \$15,000. A similar sum was received from Mrs. **Josiah M. Fiske** for a home for aged men. The two funds were consolidated, and the Cambridge Homes for Old People were erected at a total cost of about \$63,000.

Harkness, Mrs. Anna M., Cleveland, gift to the College of Women of Western Reserve University for a chapel, \$30,000.

Harlan, James, Mount Pleasant, Iowa, gift to the Iowa Wesleyan University, \$10,000. See OBITUARIES, AMERICAN.

Harris, N. W., Chicago, gift to the Chicago Training School for Missions, for an additional building similar to the present Harris Hall, \$25,000.

Harvard University, gift from graduates in New York city, for a university boathouse on Charles river, \$27,500.

Haskell, Mrs. Caroline E., Michigan City, Ind., gift by deed to trustees for reversion to Congregational and Seventh-Day Adventist institutions in Chicago, Michigan City, and Battle Creek, Mich.; the University of Chicago and Oberlin College; and the Haskell Orphanage, at Battle Creek, her real property, valued at \$147,000.

Hawaii, Christian people of, gift to the American Board, to repay cost of missionary work there, \$50,000. They also agreed to undertake hereafter the support of their own work and to support similar work carried on in the Philippine Islands.

Hayes, Edgar S., Natick, Mass., bequest to the Leonard Morse Hospital, \$5,000.

Hayward, Mrs. J. Francis, Quincy, Mass., gift to the Quincy City Hospital, \$5,000.

Hebrews of New Hampshire, gifts for erection of first synagogue in the State, \$18,500.

Hemingway, Augustus, Boston, donor of Hemingway Gymnasium to Harvard University, gift to the Harvard University Club, \$10,000.

Herrman, Mrs. Esther, New York, gift to the Scientific Alliance building fund, \$10,000.

Hewitt, Abram S. See Cooper, Edward, in this article.

Higginson, Henry Lee, Boston, donor of the Soldiers' Field to Harvard University, gift for a war memorial university club building, \$150,000. The university corporation gave the site.

Hillyard, John, Brooklyn, N. Y., bequest to St. Giles's Home for Crippled Children and the Sheltering Arms Nursery, the reversion of about \$15,000 each.

Hilton, William, Boston (died in 1887), bequest to town of Salisbury for benefit of aged men and women, \$50,000; became available by decision of Supreme Court in 1899 on controversy arising from division of the town after donor's death.

Hingham, O. H., La Crosse, Wis., gift to building fund of new school of science of Ripon (Wis.) College, \$15,000.

Hirsch, Baroness Clara de, Presburg, Hungary, bequest to the Baron Hirsch fund of New York city for improving the condition of the Jews, \$1,200,000.

Hobart, Garret Augustus, Paterson, N. J., bequests to the Old Ladies' Home, General Hospital, St. Joseph's Hospital, Orphan Asylum, and Children's Day Nursery, all in Paterson, each \$5,000. See OBITUARIES, AMERICAN.

Holden, Erasmus F., Syracuse, N. Y., bequests to Syracuse University for a chair of Astronomy, \$25,000; Syracuse Women's and Children's Hospital, \$5,000; Onondaga County Orphan Asylum, \$2,000.

Hollister, Caroline S., New York, bequests to Ladies' Christian Union, \$15,000; Church of the Heavenly Rest, \$10,000; Home for Incurables, Women's Hospital, Peabody Home, Bible and Fruit Mission, Infirmary for Women and Children, Young Women's Christian Association, Protestant Episcopal Orphan Home Asylum, Free Home for Destitute Girls, St. Luke's Home, Eighth Ward Mission for Homeless Boys, Society for the Relief of Destitute Blind, St. Mary's Free Hospital, House of Mercy, Missionary Society for Seamen, and Protestant Episcopal City Mission Society, each \$5,000; Howard Mission, \$3,000; and an orphan asylum, \$1,000—in all, \$104,000.

Hopper, Maria, Philadelphia, gift to Bryn Mawr College, for new scholarship, \$10,000.

Horwitz, Benjamin F., Baltimore, bequest to Johns Hopkins University, \$5,000.

Hosmer, Edward B., Boston, bequest conditionally to the Massachusetts Institute of Technology, \$50,000.

Howe, Emily H., New York, gift to the town of Hanover, N. H., for a free public library, residence property valued at \$15,000.

Howell, Benjamin F., Brooklyn, N. Y., gifts to the Eastern District Branch of the Young Men's Christian Association, \$20,000; Eastern District Industrial School, \$20,000; and Eastern District Hospital and Dispensary, \$10,000.

Hubbard, John E., Montpelier, Vt., bequests to the Kellogg Hubbard Library, which he founded, \$25,000; Green Mount Cemetery and Chapel, \$25,000; and the city of Montpelier, for a public park, his Capital Hill property, estimated value \$25,000, and \$10,000 toward equipping the park and \$50,000 toward maintaining it.

Huntington, Collis P., New York, gift for a reformatory for colored children, 1,350 acres of land and suitable buildings in Hanover County, Virginia; to the endowment of the National Academy of Design, \$25,000; also, with Mrs. **Huntington**, gift to the Tuskegee (Ala.) Normal and Industrial Institute, \$50,000.

Hyde, Arbey, Stafford, Conn., bequest to the town library, made available by the death of his sister, Mrs. Annette H. Colton, \$25,000.

Hyde, James H., Jr., New York, gift to the library of the Harvard University Club, \$20,000.

Illinois School of Agriculture and Manual Training, Glenwood, gift from Chicago friend, name withheld, \$50,000.

Ingham, O. H., La Crosse, Wis., gift toward building fund of new school of science for Ripon College, \$15,000.

Ives, Mrs. Willard, Watertown, N. Y., gift to Syracuse University for a chair of the English Bible, \$40,000.

Iverson, David B., New York and Rutherford, N. J., gift to the First Presbyterian Church, Rutherford, a parsonage valued at \$7,000.

James, D. Willis, Madison, N. J., gifts to the borough, funds for erection of a public-library building to cost \$60,000, and for its equipment

and endowment; and to the American Board, \$10,000.

Jarman, Mrs. C. W., New Haven, Conn., bequests to Yale University, her residence, valued at \$20,000, and \$2,000 cash; to its Theological Seminary, \$5,000; and its fund for aiding indigent students, \$1,000.

Jennett, Thomas, New York, bequests to three Roman Catholic churches in New York and one in Louth, Ireland, each \$5,000; Home for the Aged of the Little Sisters of the Poor, \$2,500; and St. Francis Xavier's Club, \$1,000 (the last two in New York); and to the foregoing the reversion of part of his residuary estate.

Jesup, Morris K., New York, gift to Williams College for new Young Men's Christian Association building, \$35,000.

Johnson, Alvan B., Brooklyn, gift to the Long Island Hospital College for fellowship in pathology, \$25,000.

Johnson, Mrs. Mary (died 1897), New York, bequests made available in 1899 by admission of will to probate, to St. Joseph's Seminary, Yonkers, N. Y., \$152,000; Church of All Saints, \$150,000; Roman Catholic Orphan Asylum, Roman Catholic Protectory, and Mission of the Immaculate Conception, each \$53,000; and other institutions, \$12,725—in all, \$473,725.

Johnson, Samuel, Boston, bequests to the Young Men's Christian Association and the Young Women's Christian Association of that city, each \$5,000.

Judd, Elizabeth C., Wilmington, Del., bequests to St. Luke's Hospital, New York city; Domestic and Foreign Missionary Society of the Protestant Episcopal Church, for education of Indians; and the General Clergy Relief fund of that Church, each \$5,000.

Kane, Alonzo L., Milwaukee, bequest to trustees for reversion in equal parts to St. John's Old Ladies' Home, Protestant Home for the Aged, Protestant Orphan Asylum, Associated Charitable Society, and Wisconsin Humane Society, \$500,000.

Keene, James B., New York, gifts to Woman's Hospital, \$5,000; for relief of poor, \$5,000.

Kelly, Mrs. Eugene, New York, bequests to Archbishop Corrigan for St. Patrick's Cathedral, \$200,000; St. Vincent's Hospital and St. Joseph's Seminary, each \$10,000; and Convent of the Sacred Heart, \$5,000.

Kennedy, Rachel Lenox, New York, bequests to Presbyterian Church and charitable institutions, about \$300,000; original will missing, and carbon copy offered for probate; no decision by end of the year.

Keough, James, Boston, bequests to the Society for the Propagation of the Faith, \$5,000; Carney Hospital, Home for Destitute Catholic Children, Holy Cross Cathedral, and St. James's, St. Mary's, and St. Stephen's Churches, each \$2,000; seven charitable institutions, each \$1,000; and to conferences of St. Vincent de Paul in foregoing churches the remainder of his property, valued at \$10,000.

Kinsley, Chester Ward, Cambridge, Mass., gift to new endowment fund of Brown University, \$25,000.

Knaupp, Mrs. C., New York, gift to the new German Hospital in Brooklyn, \$10,000.

Krakauer, David, New York, bequests to Hebrew institutions, \$5,000.

Laramy, Thomas W., Beloit, Wis., gift to Beloit College, business property worth \$15,000.

Larkin, Elizabeth, Chicago, bequest for education of deserving boys and girls unable to attend the higher schools, her entire estate of \$35,000.

Lathrop, Erastus, Westfield, Mass., bequest to Dwight L. Moody, to promote his religious work, his estate of \$15,000; contested.

Lawrence, William V., New York, gift to endowment of the National Academy of Design, \$5,000.

Liggett, Mrs. John S., St. Louis, gift to Washington University for a new dormitory, \$100,000.

Little, Henry Stafford, Trenton, N. J., gift to Princeton University, for a lectureship on public life, \$10,000.

Loeb, Solomon, New York, gift to Jewish charity, building for the United Hebrew Charities, cost \$250,000.

Logan, Frank G., Chicago, gift to Chicago University, funds for a library building, amount indefinite.

Long Island College Hospital, Brooklyn, N. Y., gift from friend, name withheld, \$10,000.

Loring, Hannah W., Newton, Mass., bequests, sustained on contest, to the Massachusetts Society for the Prevention of Cruelty to Animals; South End Home for Aged Men, Boston; Roxbury Home for Aged Couples; Boston Young Men's Christian Association; Perkins Institution for the Blind; Newton Cottage Hospital; Rebecca Pomeroy Home for Orphan Girls; and a home for aged women, Newton, the reversion of an estate of \$160,000.

Loughran, Rev. John, Minooka, Pa., bequest to trustees for religious and charitable purposes, all of his large estate, of which the bulk is for poor, infirm, and aged Roman Catholic priests in the diocese of Scranton, and \$5,000 for the Catholic charities of that city.

Low, Seth, President of Columbia University, gift, to complete the library built by him for the university, \$75,000.

Lowell, Augustus, Boston, gift to the Massachusetts Institute of Technology, for the benefit of the teaching staff in cases of illness, death, or retirement, \$50,000.

Lowell, Mrs. Elizabeth C., Hallowell, Me., bequests to the Hallowell Benevolent Society, \$1,000, and Hubbard Library, her residuary estate of \$12,000.

Loyola College, Baltimore, Md., gift from friends, additions to the college building, cost \$100,000.

Lyman, Edward H. B., Brooklyn, bequests to Unitarian Society of Northampton, Mass., Church of Our Saviour, Brooklyn, and Willow Place Chapel of same church, each \$5,000; twelve benevolent institutions in Brooklyn and Home for Respectable Aged Females in Northampton, each \$2,500; and two Brooklyn dispensaries, each \$1,000.

McComb, James Jennings, New York city, gift to the Southwestern Presbyterian University, Clarksville, Tenn., \$70,000, supplementing a previous gift of \$30,000.

McCormick, Mrs. Nettie F., Chicago, gift, funds for establishment of a manual-training school in connection with the S. P. Lees Collegiate Institute at Jackson, Ky., an auxiliary of the Central University of Kentucky.

McMurtrie, Richard C., friends of the late, gift to the University of Pennsylvania for a McMurtrie Hall in new law building, \$25,000.

Mallory, George W., Fair Haven, Conn., bequests to the Yale Divinity School, \$5,000, and the American Board, \$25,000.

Mandel, Leon, Chicago, gift to the University of Chicago for an assembly hall, \$50,000.

Mannheimer, Godfrey, New York, bequests to the Michael Reese Hospital, Chicago, \$2,000; Mount Sinai Hospital, \$1,500; and United He-

brew Charities and the Association for the Impaired Instruction of Deaf-mutes, each \$1,000.

Marsh, Prof. Othniel Charles, bequests to the National Academy of Sciences, \$10,000; Yale University, his residence and grounds for a botanical garden, and the remainder of his estate, estimated at \$150,000. See OBITUARIES, AMERICAN.

Marston, Stephen W., Boston, bequests to the Newburyport Public Library, Perkins Institution for the Blind, Boston Young Men's Christian Association, and Home for Aged Men, each \$5,000; Sailors' Snug Harbor, at Quincy, \$3,000; and Roanoke College, Salem, Va., \$2,000.

Mather, Samuel, and wife, Cleveland, Ohio, gift to Western Reserve University for library, \$12,000.

Maxwell, Henry W., Brooklyn, N. Y., gift to the Long Island College Hospital, \$10,000.

Mead, Elizabeth J., Stamford, Conn., gift to Wesleyan University, subject to an annuity during her life, \$38,000.

Michigan, University of, Ann Arbor, gift from the city, site for a new homœopathic hospital, purchased for \$17,000.

Middlesworth, Abram, Shelbyville, Ill., gift to the Illinois Children's Home and Aid Society, his old home and 10 acres of ground, valued at \$10,000.

Moen, Mrs. Philip, Worcester, Mass., bequest paid to Hartford Theological Seminary, \$10,000.

Moody, Dwight Lyman, East Northfield, Mass., gift from friends in the United States and Great Britain, to commemorate his sixtieth birthday, a total of \$310,000, with which a new chapel at Mount Hermon was erected; dedicated Aug. 16. See OBITUARIES, AMERICAN.

Moore, James A., and wife, New York, gift to Bethesda Episcopal Church, Saratoga, N. Y., a rectory.

Moran, Mary, Baltimore, Md., bequest to the Catholic University of America, for a Celtic chair, \$10,000.

Moravian Seminary for Women, Bethlehem, Pa., gift from friends for endowment, \$5,000.

Morgan, John Pierpont, New York, gift to the New York Public Library, a collection of 180 bound volumes and about 30,000 separate pieces of manuscript, being the greater part of the Ford collection, which he purchased early in the year. The manuscripts include 237 letters of Andrew Jackson, 97 of James Monroe, 1,280 letters to and from Noah Webster, a large part of the correspondence of Horace Greeley in 1850-'75, many letters of Robert Morris and William B. Lewis, and valuable papers on American bibliography, history, and biography. Also gift to the Society of the Lying-in Hospital, property valued at \$350,000, supplementing his previous gift of \$1,000,000 for a new hospital building; and gift to public library in Holyoke, Mass., \$10,000.

Morton, Levi P., New York, gift to endowment of the National Academy of Design, \$5,000.

Mosely, Alexander, Boston, bequest to the Boston Art Museum, property assessed at \$140,350.

Mount Holyoke College, South Hadley, Mass., gift from friend, name withheld, for a scholarship, \$5,000.

Munyon, James M., Philadelphia, gift for a home and school for dependent girls, similar in purpose to Girard College for boys, a tract of 30 acres near Fairmount Park, and funds for the erection of buildings, planned to cost about \$2,000,000.

Murphy, Edward, New Harmony, Ind., gift to the Public Library, \$42,000, supplementing a prior gift of \$30,000.

Newcomer, Benjamin F., Baltimore, gift to the Baltimore Hospital for Consumptives, \$10,000.

Newman, Bishop John P., bequest to Drew Theological Seminary, Madison, N. J., the reversion of \$50,000. See OBITUARIES, AMERICAN.

New Orleans, Jesuit Community of, gifts for college buildings, planned to cover an entire square and to cost \$1,000,000.

New York Chamber of Commerce, gift to Columbia University for a Waring municipal fund, \$10,000. The chamber also agreed to maintain a new lecture course on Commerce at an expense of \$15,000 per annum.

New York University, New York, gifts from friends for endowment of its School of Applied Science, \$200,000; a hall for its Young Men's Christian Association; funds for a library of German language and literature; and for the woman's law class an endowment of \$12,000.

Noyes, Nathaniel, Haverhill, Mass., bequests to the Haverhill City Hospital, \$20,000; and Old Ladies' Home, Children's Aid Society, and Public Library, each \$10,000.

Oberlin College, Oberlin, Ohio, gift from friend in Cleveland, a new chemical laboratory, cost with ground, \$60,000.

O'Brien, John, New York, bequests to St. Vincent's Hospital and the New York Foundling Asylum, each \$2,000; St. Joseph's Home for the Aged, St. Vincent's Retreat, Harrison, N. Y., and Providence Hospital, Buffalo, each, \$1,000.

O'Brien, Rev. Michael, Lowell, golden jubilee gift to the Working Girls' Home, \$29,800.

Page, A. F., Raleigh, N. C., bequest to the Methodist Orphanage there, his Academy of Music property, valued at \$20,000.

Paine, Joseph P., M. D., Roxbury, Mass., bequests to the Medical School of the Boston University, all his medical books and his residuary estate, the latter to aid worthy but poor students; the Homœopathic Hospital, for a free bed, \$5,000; and Boston Highlands New Church Society, \$5,000.

Pearsons, Daniel Kimball, M. D., Chicago, gift to Berea College, on completion of a fund of \$150,000 from other sources, \$50,000. He also agreed to give another \$50,000 when \$150,000 should be secured from others.

Pennington (N. J.) Seminary, friends of, gifts for new administration building, \$30,000.

Pennsylvania, University of, Philadelphia, Christmas gift from friend, name withheld, \$250,000, of which \$50,000 is to aid new dormitory construction; also from friend, name withheld, for a physical laboratory, \$250,000; and from **Class of 1879**, for a Kendall scholarship, \$5,000.

Pepper, Mrs. Dr. William, Philadelphia, Pa., gift to the University of Pennsylvania to extend the work there of her late husband, \$50,000.

Perry, Edward Y., Hanover, Mass., bequest to his executors, after payment of a few small legacies, his personal and real estate, to be used as a trust for assisting the worthy poor of Hanover, Hanson, and Pembroke. The estate has an estimated value of \$1,000,000, and from its income the executors must assist every worthy person needing aid, regardless of sect, sex, or color. Young men of moderate means desirous of going to college are to be assisted to do so, and no partiality or discrimination is to be shown in distributing this income.

Pevear, Henry A., Lynn, Mass., gift for the benefit of orphan boys, those of Lynn and Shirley to be preferred, a home and industrial school, comprising his summer mansion in Shirley, with additions and equipment, representing from \$250,000 to \$300,000.

Phelps, Miss Caroline, gift to Smith College, Northampton, Mass., for a scholarship, \$5,000.

Phillips, Mrs. Frederick T., Lawrence, Long Island, gift to Harvard University, \$5,000.

Pillsbury, Mrs. George A., Minneapolis, gift to the Calvary Baptist Church of that city, \$5,000.

Pillsbury, ex-Gov. John S., and wife, Minneapolis, Minn., gift to the Minneapolis Home for Children and Aged Women, for a permanent maintenance fund, \$100,000.

Pitcairn, John, Philadelphia, gift to the Church of the New Jerusalem, \$400,000; gift made more than two years ago, but only became public at the general convention of the Church in 1899.

Plankington, Elizabeth, Milwaukee, conditional gift to the Young Women's Christian Association of that city, for a building, \$100,000.

Platt, Caroline, Waterbury, Conn., gift to the Bronson Free Library in that city, \$20,000.

Plattdutsche Volksfest Verein of New York and New Jersey, gift for aged and indigent Germans, the Fritz Reuter Alten Heim, at Union Hill, N. J., cost \$45,000.

Pomeroy, Martha S., bequests to Wellesley College, \$60,000, and, after payment of other legacies, the remainder of her estate.

Poole, Robert, Baltimore, gift to the Enoch Pratt Free Library, ground and building for an additional branch.

Pratt, Mrs. Charles M., Brooklyn, N. Y., class of '80, and **Mrs. W. B. Thompson**, Pittsburg, Pa., class of '77, joint gift to Vassar College, funds for erection and equipment of a chapel, amount not stated.

Prendergast, Richard, Chicago, bequest, for the establishment of St. Winifred's Rest (a rest cure for persons suffering from insomnia and nervous troubles), his summer estate at Wheaton, Ill.

Presbyterian Board of Missions, Friends of, gifts to remove debt, \$262,000.

Price, Mrs. Thankful A., Cortland, N. Y., bequest to Syracuse University, a valuable farm and \$5,000.

Princeton University, gifts from friends, names withheld, for the department of history, \$800,000; for a Murray chair of English Literature, \$100,000; and for a chair of Politics, \$100,000. See also individual names in this article.

Pringle, Samuel Milligan, New York, bequest to found a Pringle Memorial Home for needy men, particularly educated and literary men, his entire estate. On contest the will was sustained. His sister, **Margaret Pringle Fenton**, also bequeathed her estate to the proposed home. The combined estates amounted to \$125,000.

Proctor, Thomas B. and Frederick I., Utica, N. Y., gift to the city for public library site, a plot of ground that cost \$35,000.

Protestant Episcopal Diocese of New York, gift from friends, a new St. Luke's Home for Aged and Indigent Christian Women, and a chapel for a memorial to the Rev. Isaac H. Tuttle, D. D., who founded the home in 1852; both buildings completely equipped.

Proudfit, Alexander Moncrief, New York, bequests to Columbia University for fellowships in letters and medicine, each \$15,000; St. Luke's Hospital and Samuel R. Smith Infirmary, each \$16,000; New York Cancer Hospital, \$11,000; Loomis Sanitarium for Consumptives and New York Public and New York Free Circulating Libraries, each \$10,000; trustees of town of Salem, N. Y., and the Samaritan Home for the

Aged, each \$7,000; St. Mary's Free Hospital for Children, \$6,000; Presbyterian Hospital, Working Girls' Vacation Society, and Washington Academy in Salem, each \$5,000; and seven other institutions, \$8,500.

Pulitzer, Joseph, New York, gift to Barnard College for a memorial scholarship, \$10,000.

Quaker Boarding School, Westtown, Chester County, Pennsylvania, centennial gift of **Westtown Old Scholars' Association**, \$100,000.

Quintard, James W., Portchester, N. Y., bequest to Christ Church at Rye, \$10,000.

Reid, Mrs. Simon, Lake Forest, Ill., gift to Lake Forest University, funds for the erection of a chapel and a library building. She previously built Reid Hall.

Biley, Mrs. C. E. Crossman, Brooklyn borough, N. Y., gift to the Brooklyn Home for Aged Men and Couples, improved property valued at \$12,000.

Rockefeller, John D., New York, gifts to the city of Cleveland, Ohio, for the improvement of Gordon and Rockefeller Parks, \$225,000; Brown University, \$250,000; Denison University, \$100,000; Columbia University, for a chair of Psychology, \$100,000; new Horace Mann School, New York, \$50,000; and Tuskegee Normal and Industrial Institute, \$10,000. He also offered the Chicago University to duplicate all gifts made to it during the year up to an aggregate of \$2,000,000, the Rochester (N. Y.) Theological Seminary a duplication of \$150,000 in gifts, and the city of Cleveland, improved property valued at \$500,000, for an additional public park.

Rogers, William A., Buffalo, N. Y., gift to the Sheffield Scientific School, Yale University, \$5,000.

Ropes, John Codman, Boston, bequests to the Massachusetts Military Historical Society, the *memorabilia* of the Napoleonic *régime*. See OBITUARIES, AMERICAN.

Ryan, Mrs. Thomas F., New York, gift to the Sisters of the Perpetual Adoration in Washington, D. C., half a block of ground in that city for a site for the Convent of the Blessed Sacrament.

Sage, Russell, New York, gift to new building fund of Woman's Hospital, \$50,000.

St. Johnsbury (Vt.) Academy, gift from a friend, name withheld, \$10,000.

St. Luke's Hospital, New York, gifts from friends to endowment fund, \$227,750.

Sargent, Mrs. Winthrop, Boston, memorial gift to Emmanuel Church, a reredos of Caen stone and altar of marble, cost about \$8,000.

Schieren, Charles A., Brooklyn, N. Y., gift toward erection of Christ English Evangelical Lutheran Church in that borough, dedicated Oct. 1, \$30,000.

Schiff, Jacob H., New York, gifts to Harvard University, for a Semitic museum, \$50,000, and to endowment of the National Academy of Design, \$5,000.

Schurz, Carl, New York, friends of, gift to Columbia University, for two foundations to bear his name, \$20,000.

Scranton, Mary E., New Haven, Conn., gift to Madison, Conn., a public library building as a memorial to her father, Erastus C. Scranton.

Scribner, Charles, New York, gift to Princeton University for a fellowship in English literature, \$12,000.

Searles, Edward F., San Francisco, gift to the directors of the Hopkins Art Institute, given by him to the public, funds for an additional picture gallery, cost between \$15,000 and \$18,000.

Sessions, John H., Bristol, Conn., bequest to Wesleyan University, \$25,000.

Seidl, Anton, Memorial Committee, gift to Columbia University, for a fellowship in music, \$12,000.

Senff, Charles H., New York, gift to Columbia University to equip expedition up the Nile, \$5,000.

Seventh-day Adventists, General Conference of, gift from an English friend, \$405,000.

Severance, Louis H., New York, gifts to Oberlin College, more than \$63,000.

Sharpe, Lucien, Providence, R. I., heirs of, gift to Brown University, unconditioned, \$10,000.

Sheppard, Dr. Robert D., treasurer of Northwestern University, gift to the university for the new gymnasium fund, \$15,000.

Simmons, E. C., Kenosha, Wis., gift to the city for a free library building, \$100,000; also a promise to furnish it with 25,000 volumes.

Simmons, John, Boston, bequest to trustees, for the establishment of a college for women, a portion of his estate, which, under investment for about twenty-five years, reached the sum of \$2,000,000, and thus became available in 1899.

Simpkins, John, Yarmouth, Mass., family of the late, gift to the Lawrence Scientific School, Harvard University, \$20,000.

Sinclair, Charles A., Brookline, Mass., bequest to the Bethlehem (N. H.) Methodist Church, \$5,000.

Sinton, David, Cincinnati, gift to the University of Cincinnati for endowment, \$100,000.

Skinner, William, Holyoke, Mass., gift to public library building fund, \$10,000.

Smith, Charles Frederick, Boston, bequests to the Beverly Historical Society, Beverly Fuel Society, Massachusetts Societies for the Prevention of Cruelty to Animals and to Children, Massachusetts Charitable Eye and Ear Infirmary, Perkins Institution for the Blind, Industrial School for Crippled and Deformed Children, Home for Aged Couples, Boston Dispensary, and Associated Charities of Boston, the reversion in equal shares of an estate of \$1,000,000.

Smith, Elisha D., Menasha, Wis., bequests to several colleges and religious associations, annuities of from \$500 to \$1,000 each.

Smyth, Frederick, Manchester, N. H., bequests to Dartmouth College, New Hampshire Home Missionary Society, Franklin Street Church, City Mission, and Smith Library, each \$5,000; State Industrial School, Children's Home, State Orphans' Home, and State Agricultural College, \$2,000; and New Hampshire Bible Society, \$1,000. See OBITUARIES, AMERICAN.

Snyder, Prof. Edward, Pacific Beach, Cal., gift to the University of Illinois, where he formerly taught, to aid worthy students, the reversion of \$125,000.

Somerville, Maxwell, Philadelphia, gift to the University of Pennsylvania, \$600,000.

Spalding, Right Rev. John L., Bishop of Peoria, Ill., gift to his diocese, a commercial, classical, and manual-training school, cost \$50,000.

Stanford, Mrs. Leland, San Francisco, gift to Leland Sanford Junior University, deeds conveying the bulk of her wealth in stocks and real estate. The first transaction, May 31, transferred property of a face value of \$38,000,000 and a cash market value of \$15,000,000, and the second, June 15, comprised two large tracts of recently purchased grazing land, with valuable water rights, which were incorporated with the famous Vina Ranch, now owned by the university. These gifts swell the endowment of the university to \$45,000,000, calculated on the basis of a 5-per-cent. return from the properties in which the Stanford fortune was invested. The face value of the

securities constituting the bulk of the investments is about \$80,000,000, and any increase in their market price will enhance the total endowment, already the largest of any privately established institution in the world.

Stedman, Mrs. Lucy, gift to Vassar College for new biological laboratory, \$25,000.

Stevens, Mrs. Martha B., Hoboken, N. J., bequests to Protestant Episcopal institutions, \$15,000.

Stewart, Herbert, New York, bequest to Yale University for a special scientific fund, \$50,000.

Stickler, Joseph W., and wife, Orange, N. J., gift to trustees of the Free Library, funds for erection of a library building.

Stillman, James, New York, gift to Harvard University for an infirmary, \$50,000.

Stokes, Caroline Phelps and **Olivia Phelps**, New York, joint gift to Yale University, funds for a new administration building, cost \$40,000; also the former, gift to Smith College, for a scholarship, \$5,000.

Sullivan, Mrs. Alice M., Providence, gift to Brown University Library for books on Church history, \$10,000.

Sunderland, Mass., public library of, gift from friend, name withheld, \$9,000.

Swan, Margaret A., New York, bequest to trustees for First Presbyterian Church, Geneva, N. Y., \$20,000.

Syracuse, University of, gifts from trustees to make up deficiency, \$28,000.

Talcott, James, New York, gift to Mount Holyoke College for an arboretum, \$10,000.

Tammany Hall, New York, gift for relief of poor, \$10,000.

Taylor, William H., Brookline, Mass., bequests to American Board of Commissioners for Foreign Missions, \$15,000; American Missionary Association and American Home Missionary Society, each \$10,000; and Rollins College, Florida, \$5,000.

Taylor, William Y., Philadelphia, bequests to local charities, \$21,000.

Temple of Emanu-El, New York, gifts from friends for a sisterhood home, \$50,000.

Thayer, Mrs. Eliza De Wolf, Newton, Mass., bequests to four missionary boards, each \$5,000; to United Congregational Church, Newton, and three of the missionary societies, the residue of her estate; and to Brown University, the valuable library of her late husband, Dr. Thatcher Thayer.

Theosophical Society, American Section of, the gift from friend, name withheld, \$50,000.

Thompson, Mrs. F. F., New York, gift to new building fund of Woman's Hospital, \$50,000.

Thompson, Mrs. W. B. See Pratt, Mrs. Charles M.

Thompson, Robert M. See United States Naval Academy.

Thorndike, Mrs. Delia D., Boston, bequests, direct and in reversion, to twenty benevolent, religious, and educational institutions, an aggregate of \$39,000.

Thorne, Samuel, New York, gift to the New York Zoological Society, \$5,000.

Tibballs, Sarah J., New York, gift to the University Place Presbyterian Church, a furnished 35-roomed building at Ocean Grove, N. J., for a house of rest for the working women of the congregation.

Tilden, Walter H., Philadelphia, bequest to the Home for Aged Couples, on condition that it takes his name, the bulk of his estate of \$200,000.

Tilford, Charles E., New York, bequests to the Society for the Prevention of Cruelty to Ani-

mals and the Metropolitan Museum of Art, each the reversion of \$25,000; and to the Presbyterian, Mount Sinai, Flower, and St. Vincent's hospitals, Home for Incurables, St. John's Guild, and the Children's Aid Society, in equal parts, the reversion of his residuary estate, estimated at over \$1,000,000.

Toner, James L., Pennsylvania, bequest to the Benedictine Society of the Catholic Church in America, for a manual-training institute, 100 acres of land and about \$185,000.

Tousey, Mary Beach, New York, bequests to Trinity College, Hartford, \$20,000; Society of St. John's, St. Clement's Church, trustees of Diocesan Convention of New York, and Protestant Episcopal Society for the Increase of the Ministry, each \$10,000; cemetery trustees of Newtown, Conn., Protestant Episcopal Orphan Home and Asylum, New York, St. Luke's Home for Indigent Christian Females, Home for Old Men and Aged Couples, Society for Relief of the Destitute Blind, Protestant Episcopal Missionary Society for Seamen, Church Mission to Deaf-mutes, Home of Preservation, St. Agnes's Home, Protestant Episcopal Missionary Society, and St. Mary's Free Hospital for Children, each \$5,000; New York Bible and Common Prayer Book Society, \$2,500; and Protestant Episcopal Domestic and Foreign Missionary Society, amount not specified.

Townsend, Charles J., class of '79, gift to the University of Rochester, for endowment of scholarship in political science, \$5,000.

Trowbridge, Mrs. Ezekiel H., and her son, **E. Hayes Trowbridge**, New Haven, gift to the New Haven Hospital to complete a maternity department, \$10,000.

Trowbridge, Rutherford B., New Haven, gift to the Yale Art School, \$10,000.

Tuck, Edward, New York, gift to Dartmouth College, to be applied exclusively to instruction, \$300,000.

Tuskegee Normal and Industrial Institute, Tuskegee, Ala., gift from woman friend in Ohio, name withheld, \$25,000.

Tuttle, Catharine M., Columbus, Ohio, gifts to Hobart College, Geneva, N. Y., for needy students, \$20,000; to Vassar College, for a Stedman scholarship, \$10,000.

Underhill, Daniel, Jericho, Long Island, N. Y., bequest to Swarthmore College, \$5,000.

Union College, Schenectady, N. Y., gift from friend, name withheld, funds for a Young Men's Christian Association building.

United States Naval Academy, gift from Park Benjamin, Robert M. Thompson, and Edward J. Berwind, a collection of 1,400 books, many of the fifteenth, sixteenth, seventeenth, and eighteenth centuries, and including almost every original treatise on the science of electricity ever published. Fifteen years were spent in gathering the collection, and a large number of them could not be duplicated.

Vanderbilt, Mrs. Alice G., New York, gift to the police pension fund, \$5,000.

Vanderbilt, Cornelius, New York, gifts to endowment of the National Academy of Design, \$10,000, and to the New York Zoological Society, \$5,000; also bequests to St. Bartholomew's Protestant Episcopal Church, for new parish building, \$200,000, and for parish missionary work, \$400,000; Young Men's Christian Association of New York, for its work among railroad employees, \$100,000; Yale University, \$100,000; St. Luke's Hospital, the Domestic and Foreign Missionary Society of the Protestant Episcopal Church, and Vanderbilt University, each \$50,000; Redwood Library at Newport, R. I., New-

port Hospital, Christian Home for Intemperate Men in New York, Working Girls' Society, Bible and Common Prayer Book Society, Society of St. Johnland, and the Protestant Episcopal Society for Seamen, each \$10,000—in all, \$1,020,000; also to the Metropolitan Museum of Art, Turner's painting of the Grand Canal, Venice, valued at \$100,000. See OBITUARIES, AMERICAN.

Vanderbilt, William K., New York, gift to Vanderbilt University, Nashville, Tenn., funds for new dormitory, to cost \$100,000.

Van Nostrand, Mrs. S. A., New York city, bequests to Yale University for the Sheffield Scientific School, \$25,000, and the General Seminary of the Protestant Episcopal Church, \$5,000.

Van Pelt, Albert S., New Brunswick, N. J., bequest to the Board of Foreign Missions of the Reformed Church of America, \$10,000.

Vassar Alumnae Association, gift to the college for an infirmary, \$40,000.

Vassar College, gift from friend, name withheld, one half of amount needed for a biological laboratory, conditioned on securing remainder, \$25,000.

Voorhees, Ralph, Clinton, N. J., gifts to the American Bible Society, \$10,000; Board of Foreign Missions of the Reformed Church, \$10,000; and Clinton Board of Education, \$5,000.

Walker, Andrew, Kennebunk, Me., bequests, to the Kennebunk Public Library, \$10,000, and to eight churches there and in Kennebunkport, each \$1,000.

Wallace, Rodney, Fitchburg, Mass., gift to the Public Library, which he gave the city, \$10,000.

Walters, Henry, Baltimore, gift to the city for public bath houses, \$45,000.

Warren, Charles F., Manchester, N. H., bequests to fraternal, educational, and charitable organizations, an aggregate of \$12,000.

Warren, Henry C., Cambridge, Mass., bequests to Harvard University, real estate and securities valued at nearly \$1,000,000.

Warren, Nathan B., Troy, N. Y., bequest to Trinity College, \$10,000.

Webb, William Henry, New York, bequests to Webb's Academy and Home for Shipbuilders, founded by him, securities to insure its maintenance (value not specified), all his paintings, busts, books, prints, and manuscripts relating to shipbuilding, and his residuary estate; and the Metropolitan Museum of Art, the paintings Florinde and Columbus unveiling America to the Rest of the World and the statue Venus. See OBITUARIES, AMERICAN.

Weber, Frederick E., Boston, bequest to Atlanta University, \$5,000.

Weis, Julius, New Orleans, gift to the Truro Infirmary, for a new building for aged and infirm beneficiaries, \$25,000.

Wellesley College, gifts from former students toward canceling the debt and creating an endowment fund, \$30,000.

West, George, and wife, Ballston Spa, N. Y., subscription to endowment fund of the Round Lake Institute, \$26,250.

Wetherell, Mrs. Hester N., Worcester, Mass., bequests to the Worcester Children's Friend Society, \$20,000; Washburn Home for Aged Women, Home for Aged Men, Temporary Home and Day Nursery, Worcester Art Museum, and Worcester Employment Society, each \$10,000; Worcester Polytechnic Institute, Worcester Natural History Society, and Society for Supporting District Nurses, each \$5,000; Worcester Boys' Club, \$8,000; and four other institutions, \$9,000—in all, \$102,000.

Wheaton Seminary, Norton, Mass., gift from anonymous friend for endowment, \$60,000.

White, Francis L., New York, gift for endowment of Earlham College, Richmond, Ind., \$25,000.

White, Mrs. Catherine M., Chicago, bequests to the Chicago Art Institute, \$200,000, and to local educational institutions, an aggregate of nearly \$300,000.

Whiting, William, Holyoke, Mass., gift to public library building fund, \$10,000.

Widener, Peter A. B., Philadelphia, Pa., gift for the benefit of crippled children, funds for the erection and endowment of a combined home, hospital, and industrial school, to cost at least \$2,000,000. The gift became active by his purchase of 36 acres of land at Logan, a suburb of Philadelphia, for the site of the institution.

Williams, Daniel B., Stockbridge, Mass., bequests to Hampton (Va.) Institute, \$5,000; other institutions, \$4,000.

Williams, Bishop John, Middletown, Conn., bequests to the Berkeley Divinity School and Trinity College, his library; and to the former the residue of his estate, estimated at about \$10,000. See OBITUARIES, AMERICAN.

Williams, John L., Richmond, Va., gift for endowment of the Charlotte Williams Hospital there, \$100,000.

Wilson, John L., Framingham, Mass., bequests to the First Parish Church, \$2,000; Framingham Hospital, \$5,000; Home for Aged and Infirm Old Men and Women, \$3,000; and city of St. Augustine, Fla., a house and lot for a free public library.

Wolcott, Mrs. Harriet F., Boston, bequests to the Massachusetts General Hospital, \$25,000; Hampton Normal and Industrial Institute, \$3,000; North Bennett Industrial School, Boston, \$2,500; and Tuskegee Normal Institute, \$2,000.

Wolcott, Mrs. Roger, Boston, gift to the town of Pepperell, Mass., a soldiers' monument commemorating the Pepperell men who fought at Bunker Hill.

Wood, Antoinette Eno, New York, gift to the New York Zoölogical Society, \$5,000.

Working Girls' Vacation Society, gifts from friends for its summer home, \$25,000.

Wyman, Mrs. Nancy P. D., Bangor, Me., bequests, to Bangor institutions and foreign missions, an aggregate of \$6,100.

Yale University, gift from friends, funds for a new law-school building, to cost \$100,000.

Young Men's Christian Association, Bar Harbor, Me., gift from summer visitors, for a new building, \$21,000.

Young Men's Christian Association, Cambridge, Mass., gifts from friends to extinguish debt on new building, \$59,000.

Young Men's Christian Association, New Haven, Conn., gift from friend, name withheld, for new building fund, \$40,000.

GREAT BRITAIN AND IRELAND, a monarchy in western Europe, formed by the union of the Kingdom of England and the Principality of Wales with the Kingdom of Scotland, constituting together the Kingdom of Great Britain, and of this with the Kingdom of Ireland, the whole forming the United Kingdom of Great Britain and Ireland, which holds supreme dominion over the Empire of India and colonies and dependencies of various kinds—self-governing colonies, colonies governed and administered partly or wholly by the Crown, and protectorates under native laws and rulers—constituting, with the United Kingdom, the British Empire. The reigning sovereign is the Queen-Empress Victoria, born May 24, 1819, the daughter of Edward, Duke of Kent fourth son of George III. The heir appar-

ent is Albert Edward, Prince of Wales, born Nov. 9, 1841, eldest son of Queen Victoria and the Prince Consort Albert, Duke of Saxe-Coburg-Gotha. George, Duke of York, born June 3, 1865, only surviving son of the Prince of Wales and the Princess Alexandra of Denmark, is next in succession, and next comes his eldest son, Edward Albert, born June 23, 1894, issue of his marriage with Victoria Mary, daughter of the Duke of Teck.

The power to legislate for the United Kingdom and for all parts of the British Empire, except so far as it is delegated to local legislative authorities, is vested in the British Parliament, consisting of a House of Lords and a House of Commons. Members of the House of Lords are princes of the blood royal; spiritual lords, which are the metropolitan bishops of ancient English sees; hereditary peers of England, of Great Britain, and of the United Kingdom; representative peers of Scotland, elected by their fellows for the duration of Parliament, and of Ireland, elected for life; and life peers and law lords, created by the sovereign by advice of the ministers. The number of peers on the roll in 1898 was 586. About two thirds of the hereditary peerages have been created within the nineteenth century, and only 16 go beyond the sixteenth century. The House of Commons contains 670 members, of whom 253 represent the county constituencies, 237 the boroughs, and 5 universities of England; 39 the county constituencies, 31 the boroughs, and 2 the universities of Scotland; and 85 the county constituencies, 16 the boroughs, and 2 the universities of Ireland. The franchise is possessed by all householders and lodgers, about one in six of the total population, the number of electors in 1898 being 5,144,222 in England and Wales, 664,095 in Scotland, and 720,312 in Ireland. The number who voted in 1895 was 3,858,923. The duration of Parliament, unless it is previously dissolved, is seven years. The Committee of Ministers, called the Cabinet, representing the majority for the time being in the House of Commons, exercise in fact the executive authority in the United Kingdom and the British Empire that is nominally vested in the Crown. The Prime Minister chooses his colleagues and dispenses the patronage of the Crown; he initiates to a great extent the policy of the Government or approves the measures suggested by the other ministers in their several departments, and when his policy or his acts encounter the displeasure of Parliament, manifested by an adverse vote on a Cabinet question or a direct vote of censure, he either resigns forthwith, in company with the rest of the Cabinet, or appeals to the country by dissolving Parliament and holding new elections. When a Cabinet resigns the retiring Prime Minister advises the Queen as to the selection of the statesman most competent to form a new government, usually the leader of the Opposition in the House of Commons. The Cabinet formed on June 25, 1895, by Lord Salisbury consisted in the beginning of 1899 of the following members: Prime Minister and Secretary of State for Foreign Affairs, the Marquis of Salisbury; Lord President of the Council, the Duke of Devonshire; Lord High Chancellor, the Earl of Halsbury, formerly Sir Hardinge S. Giffard; Lord Privy Seal, Viscount Cross, formerly Sir Richard Cross; Chancellor of the Duchy of Lancaster, Lord James of Hereford, formerly Sir Henry James; First Lord of the Treasury, Arthur J. Balfour; Secretary of State for the Home Department, Sir M. White Ridley; Chancellor of the Exchequer, Sir Michael E. Hicks-Beach; Secre-

tary of State for the Colonies, Joseph Chamberlain; Secretary of State for War, the Marquis of Lansdowne; Secretary of State for India, Lord George Hamilton; First Lord of the Admiralty, G. J. Goschen; President of the Local Government Board, Henry Chaplin; President of the Board of Trade, C. T. Ritchie; Lord Lieutenant of Ireland, Earl Cadogan; Lord Chancellor of Ireland, Lord Ashbourne, formerly Edward Gibson; Secretary for Scotland, Lord Balfour of Burleigh; First Commissioner of Works, A. Akers-Douglas; President of the Board of Agriculture, W. H. Long.

Area and Population.—The area of the United Kingdom is 120,979 square miles, England having an area of 50,867, Wales 7,442, Scotland 29,785, Ireland 32,583, the Isle of Man 227, and the Channel Islands 75 square miles. The estimated population of England and Wales and the islands in 1898 was 31,397,078; of Scotland, 4,249,946; of Ireland, 4,541,903; total population of the United Kingdom, 40,188,927. The population of the metropolis of London in June, 1898, was estimated at 4,504,766 for the registration district and 1,903,555 for the outer ring; total for greater London, 6,408,321, having increased from 4,766,661 in 1881 and 5,633,332 in 1891. Glasgow, in Scotland, had 724,349 inhabitants in 1898; Edinburgh, 295,628. The number of marriages in England and Wales in 1897 was 248,843; of births, 921,254; of deaths, 541,428; excess of births, 379,826. The number of marriages in Scotland was 30,966; of births, 128,823; of deaths, 79,061; excess of births, 49,762. The number of marriages in Ireland was 22,891; of births, 106,664; of deaths, 83,839; excess of births, 22,825. From 1815 to 1853 the number of emigrants from the United Kingdom was 3,463,592; from 1853 to 1897 it was 8,408,925, counting only persons of British or Irish origin, and of these 5,609,678 emigrated to the United States, 868,099 to British America, 1,399,375 to Australasia, and 531,773 to other countries. The number of emigrants, natives and foreigners, who sailed from British ports in 1898 was 205,073, of whom 123,543 went to the United States, 27,553 to British America, 11,020 to Australasia, and 42,957 to other countries. The total for 1897 was 213,280, of whom 122,317 were males and 90,963 females. The number of British and Irish emigrants in 1898 was 140,630, of whom 90,664 were English, 15,575 Scotch, and 34,391 Irish. The number of immigrants, British and foreign, in 1897 was 155,114, reducing the total net emigration to 58,166; the number of immigrants of British and Irish origin was 95,221, which reduces the emigration from the native population to 51,239. The number of Irish who emigrated from Ireland in 1897 was 32,535; the total number from 1851 to the end of that year was 3,722,658.

Finances.—The revenue for the year ending March 31, 1898, was estimated in the budget at £103,044,000, and the expenditure, including supplementary estimates, at £104,892,900. The actual receipts were £106,614,004 and the actual expenditures £102,935,994, leaving a surplus of £3,678,010. Taxation by customs, excise, and estate duties, stamps, the land tax, the house duty, and the income and property tax produced £89,560,630, or 83 per cent. of the net receipts of the exchequer, in 1898, while the nontax revenue, derived from the postal and telegraph services, Crown lands, interest on Suez Canal shares, and miscellaneous sources, was £17,130,090, making the total net receipts £106,690,720. The net revenue from customs was £21,792,250, of which £11,433,909 came from tobacco, £3,868,207 from tea, £2,072,658 from rum, £1,329,638 from

brandy, £897,664 from other spirits, £1,325,373 from wine, £104,281 from currants, £170,049 from coffee, £212,913 from raisins, and £377,558 from other articles. The net receipts from excise were £28,323,142, of which £16,396,726 came from spirits, £11,388,126 from beer, £243,216 from license duties, £287,924 from railroads, and £7,150 from other sources. The net receipts from estate and legacy duties, etc., were £11,185,998, of which £7,705,855 came from the estate duty, £57,692 from the temporary estate duty collected on property of persons dying before Aug. 1, 1894, £57,414 from the probate duty paid on the same class of property, £2,595,690 from the legacy duty, £727,024 from the succession duty, and £41,723 from the corporation duty. The stamp revenue amounted to £7,598,245, of which £4,121,891 came from deeds, £1,350,691 from receipts, £660,818 from bills of exchange, £260,852 from patent medicines, £166,998 from licenses, etc., £353,959 from the capital of companies, £175,482 from bonds to bearer, £216,666 from insurance, and £290,888 from other sources. The land tax yielded £7,598,245, the house duty £922,860, and the income and property tax £17,171,377. The net receipts from the post office were £12,206,694; from the telegraph service, £3,030,352; from Crown lands, £443,160; interest on Suez Canal shares, £733,898; net receipts from miscellaneous sources, £1,715,986; the actual receipts within the year having been £1,737,106, of which £948,390 came from fee stamps, £421,000 from the mint, £175,562 from the Bank of England, and £192,154 from various sources.

The national expenditure is divided into charges on the consolidated fund, the army and navy supply services, and the civil and miscellaneous services. The consolidated fund charges for 1898 amounted to £26,885,994, of which £25,000,000 were appropriated to the public debt, £79,560 were for salaries, £512,483 for courts of justice, £344,553 for miscellaneous charges, and £250,000 for recoinage. Of the sum devoted to the debt, £16,043,925 went for interest on the consolidated debt, £7,261,159 for terminable annuities, £139,300 for interest on the unfunded debt, and £174,309 for debt management, leaving £1,361,307 for the new sinking fund. The sum appropriated to the army was £19,330,000; to the navy, £20,850,000; to the civil services, £21,560,000; to the collection of customs and inland revenue, £2,745,000; to the post office, £7,592,000; to the telegraph service, £3,226,000; to the packet service, £747,000; total for the supply services, £76,050,000.

The exchequer receipts for the year ending March 31, 1899, were £108,336,000, the budget estimate having been £107,110,000; the total revenue collected, including £9,521,000 that went to local-taxation account, was £117,857,000, against £116,016,000 in 1898. Customs produced £20,850,000, which was £230,000 less than the estimate, the revenue from foreign spirits having fallen off owing to bad potato crops abroad, tobacco also falling below the estimate owing to a rise in price, while tea, coffee, and cocoa showed an increase. The excise receipts were £29,200,000, or £250,000 more than the estimate, the increase being due partly to beer, and in a greater measure to the consumption of British spirits in the place of imported spirits. Death duties yielded £15,633,000, of which £4,233,000 went for the relief of local taxation, the total exceeding the estimate by £730,000. The income tax yielded £18,000,000, exceeding the estimate by £300,000. The estimate of expenditure for 1899 was £106,829,000. Supplementary estimates

amounted to £1,986,000, while savings of £665,000 were effected, making the net expenditure for the year £108,150,000, leaving a surplus of £186,000. Adding £9,521,000 paid to the local-taxation account, £1,843,000 borrowed for telephones, barracks, the Uganda Railroad, and other purposes, and £1,710,000 issued from the exchequer balances for naval and military works, the gross expenditure was £121,224,000.

The budget estimate of expenditure for 1900 was £112,927,000, the increase in the army estimates being £1,396,000, in the navy estimates £2,817,000, in the civil service £387,000, in the postal services £781,000, in the consolidated fund charges £742,000. The Chancellor of the Exchequer reduced the estimate to £110,927,000 by taking off £2,000,000 from the annual sum set apart for the payment of the interest and principal of the debt, which had already been reduced from £28,000,000 to £25,000,000. The revenue for 1900 was estimated at £110,287,000 on the basis of existing taxation. A new stamp tax of a fourth of 1 per cent. was imposed on transactions in foreign and colonial stocks and bonds, a stamp duty of one eighth of 1 per cent. on the loan capital and debenture stock of companies, an increase in the duty on the capital stock of companies from one tenth to one fourth of 1 per cent., and a sixpenny instead of a penny stamp on allotments and transfers of stock, the yield from the new duties being estimated at £450,000. An increase in the wine duties, from 1s. to 1s. 6d. per gallon on wines under 31 degrees of proof, from 2s. 6d. to 3s. on stronger wines, and from 2s. to 2s. 6d. surtax on sparkling wines, was expected to yield £420,000. The increases in taxation raise the estimate of the total revenue of the exchequer to £111,157,000, of which £21,770,000 come from customs, £29,850,000 from excise, £11,150,000 from death duties, £8,050,000 from stamps, £800,000 from land tax, £1,650,000 from house duty, £18,300,000 from income tax, and £19,587,000 from nontax sources.

The first reduction of £3,000,000 in the annual fixed debt charge as established by Sir Stafford Northcote in 1874 was made by Mr. Goschen in 1887. The new inroad of Sir Michael Hicks-Beach into the sinking fund still left nearly £6,000,000 a year available for the reduction of debt. The manner in which the debt is reduced is mainly through the action of terminable annuities. The national debt commissioners purchase consols in the open market to be held as security for postal savings-bank deposits, and from time to time a block of these consols is canceled and replaced by a terminable annuity of such an amount and running for such a time as will suffice to pay the interest on the consols canceled and at the end of the period replace the capital, which may then be used to set up a fresh terminable annuity, or it may pass into the new sinking fund and be applied to the redemption of debt by the direct purchase of consols in the open market or to some other purpose. Between 1902 and 1904 three large terminable annuities come to an end, and the interest on consols will be lowered one fourth of 1 per cent., releasing £7,000,000 a year for the new sinking fund, which would be further increased to £9,200,000 a year by 1906. In order to prevent the diversion of these windfalls to some wholesale remission of taxation, Sir Michael Hicks-Beach proposed to prolong the savings-bank annuity of £2,200,000 from 1902 till 1911, reducing the annual charge to £591,000, and with the savings to set up two terminable annuities of £746,000 and £870,000 respectively for the cancellation of the loan of £13,000,000 obtained

from the savings banks in 1892 to carry out the shipbuilding programme and of £15,000,000 of consols held by the savings banks, both annuities expiring in 1923, when consols will be redeemable at par. Since Sir Stafford Northcote initiated the fixed debt charge in 1874 the amount of the national debt has been reduced from £768,940,000 to £627,505,000. In 1884, when consols were at par, the Government held £82,775,000 and £529,986,000 were in the hands of the public. In 1899 the Government holdings were £162,000,000 and those of the public £358,000,000, the premium had risen to 11 per cent., and it was likely to rise indefinitely if the Government continued its purchases, although in twenty-four years consols would be redeemable at par. During the time in which the taxpayers have borne the debt charge as fixed by Mr. Goschen in connection with the conversion of the 3-per-cent. consols in 1888, while the annual amount applicable to debt redemption has grown from £5,000,000 to £7,750,000, they have been subjected to increased direct taxation in order to meet unprecedentedly heavier expenditure. In the last four years the naval expenditure has increased £7,000,000, army expenditure \$2,500,000, civil-service expenditure £2,750,000, and grants out of the local taxation fund £3,000,000. For fifty years previous to 1878 the imperial taxation and expenditure were almost at a standstill, the increase being less than the growth of population, although other European nations increased their taxation 75 per cent. during this period. In the past twenty years imperial taxation has grown 50 per cent., chiefly as the result of the policy initiated by Disraeli in the check given to Russia after the Turkish war of 1878 and the purchase of Suez Canal shares. The colonial expansion, by which similar enterprises of France and Germany were frustrated or forestalled, the military occupation of Egypt, and the activity in eastern Asia have added to imperial responsibilities, and been attended with a growth of armaments in emulation of the armaments of Continental powers. While the expenditure on the debt was £3,400,000 less in 1898 than in 1878, and the cost of collecting the revenue remained the same, the expenditure on the army and navy increased between those years from £26,300,000 to £40,400,000, that of the postal and telegraph, due to the growth of business, from £5,000,000 to £11,500,000, that of the civil service from £15,600,000 to £22,900,000. Adding the Government contributions to local authorities and the contribution from India, which were formerly included in the accounts, the total expenditure in 1898 was £112,500,000, compared with £78,000,000 in 1878.

The debt on March 31, 1898, amounted to £638,266,482, offset to the extent of assets amounting to £25,241,799, chief of which were the Suez Canal shares purchased from the Khedive of Egypt, valued at £25,241,799, and further offset by exchequer balances of £10,918,422 in the Bank of England and the Bank of Ireland. The national wealth is estimated at £10,000,000,000, and the annual value of property and profits assessed for the income tax are £700,000,000, exceeding the principal of the debt, which represents a burden of £15 17s. 6d. per capita, the annual charge being 12s. 5d. per capita. The principal of the funded debt on March 31, 1898, was £585,787,624, the estimated value of terminable annuities was £40,515,080, and the unfunded debt was £8,133,000; total, £634,435,704. Other capital liabilities, incurred through the imperial defense act of 1888, the telegraph act of 1892,

the barracks act of 1890, and other acts of Parliament, amount to £3,830,778. The sum of £25,000,000 now set apart for the service of the debt is less by £3,898,651 than the annual charge after the Crimean War. After the Napoleonic wars the national debt in 1815 amounted to £861,039,049. It was decreased £56,812,695 in the next forty years, but during the Crimean War was again increased £32,918,243, amounting to £837,144,597 in 1857, since which date there has been a reduction of £202,708,893. The annual charge of £25,000,000 includes a large provision for debt reduction, amounting in 1898 to £7,360,292. On March 31, 1899, the national debt was £634,984,000.

The amount raised in 1896 for local expenditure in England and Wales was £75,474,039, including £11,053,931 of loans and £9,409,561 of Government contributions. The receipts from rates were £35,898,774; water, gas, and electric light, £7,952,980; repayments, £1,017,043; tolls and dues, £5,302,839; rents and interest, £2,108,749; sales, £527,635; miscellaneous receipts, £2,206,527. The total local expenditure of England and Wales in 1896 was £76,104,066, of which £40,019,001 were paid out by town and municipal authorities for police, sanitary works, etc., £10,215,974 by unions and parishes for poor relief, £9,426,472 by school boards, £8,339,436 by county, rural sanitary, and road authorities, and £3,454,089 by harbor authorities. In Scotland the total amount raised for local purposes was £11,289,547, of which £3,668,063 came from rates, £1,897,261 from water, gas, and electric lighting, £1,199,418 from tolls and dues, £629,005 from rents and interest, £38,768 from sales, £1,648,340 from Government contributions, £1,897,144 from loans, and £321,548 from miscellaneous sources. The total expenditures in Scotland were £11,516,116, of which £5,522,779 were for town and municipal police, sanitary works, etc., £1,013,376 for poor relief, £2,153,439 for elementary education, £1,349,847 for rural sanitary works, roads, and county expenses, and £1,200,035 for harbors. The local revenues of Ireland amounted to £5,014,086 in 1896, of which £3,040,558 were derived from rates, including water, etc., £476,427 from tolls and dues, £113,228 from rents and interest, £406,668 from Government contributions, £709,376 from loans, and £267,829 from other sources. The local expenditures of Ireland were £5,003,658, of which £1,527,211 were for town and municipal police, sanitary works, etc., £1,053,391 for poor relief, £1,472,282 for roads and rural sanitation and other expenses, and £482,807 for harbors. The expenditures of the London County Council for 1899 were estimated at £3,719,998 for maintenance, including £89,332 out of rents for tramways, workmen's dwellings, etc., and £6,009,375 of capital expenditure. The debt was £38,011,638 on March 31, 1898.

The Army.—The regular army of the United Kingdom, as provided in the estimates, consisted in 1899 of 8,109 commissioned officers, 1,087 warrant officers, 17,100 sergeants, 3,941 drummers, trumpeters, etc., and 150,267 rank and file; total, 180,513 men, an increase of 16,044 over 1898. The general staff numbered 342 officers, with 137 noncommissioned officers and privates; army accountants, 209; chaplains, 87; medical department, 598; veterinary department, 65, with 7 assistants; total staff and departments, 1,300 officers, 138 noncommissioned officers, and 7 men. The total authorized strength of the regiments was 6,019 officers, 15,264 noncommissioned officers and musicians, and 150,111 rank and file, the cav-

alry, including the Life Guards and Horse Guards, numbering 555 officers, 1,315 noncommissioned officers, etc., and 12,083 privates; the Royal Artillery, 1,140 officers, 2,552 noncommissioned officers, etc., and 26,761 privates; the Royal Engineers, 601 officers, 1,312 noncommissioned officers, etc., and 5,834 privates; the infantry, including the Foot Guards, 3,075 officers, 7,439 noncommissioned officers, etc., and 93,572 privates; the colonial corps, 208 officers, 469 noncommissioned officers, etc., and 5,888 privates; the departmental corps, 195 officers, 1,426 noncommissioned officers, etc., and 3,166 privates; the army service corps, 245 officers, 751 noncommissioned officers, etc., and 2,807 privates. The staff and instructors of the yeomanry, militia, and volunteers numbered 597 officers, 6,164 noncommissioned officers, etc., and 22 privates. Miscellaneous establishments employed as instructors, etc., 193 officers, 562 noncommissioned officers, and 136 privates, of whom 36 officers, 103 noncommissioned officers, and 107 privates were instructors in gunnery and musketry; 18 officers, 23 noncommissioned officers, and 5 privates were in the Royal Military Academy at Woolwich; 29 officers, 22 noncommissioned officers, and 19 privates in the Royal Military Academy at Sandhurst; 37 officers, 50 noncommissioned officers, and 1 private in other colleges and schools; 15 officers and 190 noncommissioned officers in regimental schools; and 58 officers, 174 noncommissioned officers, and 4 privates in other establishments. The total military force maintained for service in the United Kingdom in 1898 was 99,258 officers and men, comprising 11,251 cavalry, 16,989 artillery, 5,368 engineers, and 65,650 infantry and special corps. Of the total number 73,348, with 10,063 horses, were stationed in England; 3,947, with 350 horses, in Scotland; and 22,963, with 2,784 horses, in Ireland. The troops maintained in Egypt numbered 5,553 officers and men, with 686 horses; in the colonies, 40,669 officers and men, with 2,405 horses; in Crete, 900 officers and men. The British army in India had a strength of 74,623 officers and men, with 12,300 horses, making the total strength of the regular army 221,003 men of all ranks, with 28,588 horses. Including the auxiliary forces and the regular forces on Indian establishments, the total established strength of British military forces in 1899 was 742,421 men of all ranks, consisting of 171,394 regular troops at home and in the colonies, 73,162 in India, 83,050 army reserves, 138,961 militia, 11,891 yeomanry, and 263,963 volunteers. The effective strength of the regular forces, home and colonial, was 146,864 in April, 1899; in India, 74,623; army reserve, 82,063; militia, 118,221; yeomanry, 10,191; volunteers, 232,711; total effectives, 664,189. Among the noncommissioned officers and privates composing the regular army on Jan. 1, 1898, there were 158,566 natives of England, 16,485 Scotch, 20,374 Irish, 8,275 born in India and the colonies, 142 foreigners, and 2,551 not designated. The authorized increase in the establishment for the United Kingdom for 1899 was 20,185 rank and file, or from 195,501 to 215,686, but the actual establishment at the beginning of the year consisted of 204,925 rank and file. The additions consist of a third battalion to the Coldstream and Scots Guards, an additional battalion to 7 line regiments, 15 field batteries, 11 garrison companies, and in the colonial corps a third West India battalion, a West African regiment, and a Chinese regiment. The infantry of the line have their term of service with the colors shortened to three years, the term in the reserve being nine

years; but inducements are offered for men to serve two years longer with the colors, and arrangements have been made for the retransfer of men from the reserve to the colors. Deferred pay has been abolished, and the men receive instead a mess allowance and on their discharge a gratuity. All soldiers except the short-service men in the infantry receive an increase in their pay of 3d. a day, and on their discharge a gratuity of £1 for every year of service. The recruiting of a Canadian regiment was begun in 1898. The standard of height and age has been reduced in the cavalry as well as in the infantry, with the result that 40,729 recruits were raised for the regular army in 1898. The effective strength of the militia shrank from 105,531 on Jan. 1, 1898, to 103,647 on Jan. 1, 1899. An addition of 7,900 men to the regular army was sanctioned in 1897, which was swelled in 1898 to 25,000. Extraordinary efforts were made to recruit the additional soldiers, and special recruits of a lower standard than the service requires were admitted. Even boys under fifteen were taken on their declaration that they were eighteen years old. Out of 40,000 recruited in 1898, giving a numerical increase of less than 10,000, nearly 5,000, or half the addition, joined from the reserves and 1,180 were West Indian and West African negroes. The increase of 25,000 men was needed in order that the garrisons in India and South Africa might be strengthened, and those in Egypt and the new stations occupied under the imperial scheme of defense, be supplied. An expenditure of £5,254,000 was sanctioned in the session of 1899 to build barracks, so as to make the service more attractive at home, and defense works for the new stations. This sum is to be raised, in accordance with the policy now followed for raising money for imperial defense, by means of loans repayable after a short term of years.

The Navy.—The effective strength of the British navy in the beginning of 1899 was 35 first-class battle ships, 7 of the second, and 18 of the third class, 14 coast-defense vessels, 9 armored cruisers, 30 first-class, 53 second-class, and 42 third-class cruisers, 34 torpedo gunboats, 108 destroyers, 45 torpedo boats of the first class, and 24 of the second and third classes. The ships under construction were 12 first-class battle ships, 12 armored cruisers, 16 first-class cruisers, 6 second-class cruisers, 4 gunboats, and 41 torpedo-boat destroyers. There were 164 war ships in commission on Jan. 1, 1899, not including gunboats and vessels for coast and port defense. Of that number 14 formed the Channel squadron, 38 were in the Mediterranean and the Red Sea, 12 in North America and the West Indies, 9 in the East Indies, 28 in China, 16 in the Cape of Good Hope and West Africa, 7 in the Pacific, 12 in Australia, 4 on the southeast coast of America, 11 on particular service, 9 on surveying service, and 4 in the training squadron. The naval estimates for 1899 provided for 72,009 officers and seamen for the fleet, 3,700 boys, 4,200 officers and men for the coast guard, 17,807 marines, 198 royal marines, 2,476 officers and seamen on the training ships and on special service, and 6,000 boys in training; total, 106,390 men of all ranks, an increase of 6,340 over 1898.

The newer ships have been built in accordance with the programme embodied in the naval-defense act of 1889 and the programme announced in 1892 and since extended. That act provided for the construction of 70 ships of various classes at a total cost originally estimated at £21,500,000—viz., 10 first-class battle ships, 9 first-class cruisers, 29 second-class cruisers, 4 third-class

cruisers, and 18 torpedo gunboats, all of which have been completed. The battle ships are the Royal Sovereign, Empress of India, Ramillies, Repulse, Resolution, Revenge, Royal Oak, Hood, Centurion, and Barfleur. The first eight, launched in 1891 and 1892, comprising the Royal Sovereign class, have a displacement of 14,500 tons, 18 inches of armor over the vital parts, engines of 13,000 horse power, giving a speed of 17½ knots, and an armament of 4 67-ton guns, with 10 6-inch, 10 6-pounder, and 16 3-pounder quick-firing guns and 7 torpedo tubes. They were the latest development of the Admiral class, heavier by 2,210 tons than the Trafalgar and Nile, the last built and most powerful vessels of the navy before them, with the same main armament as those vessels, but having the heavy guns mounted in barbette towers instead of in close turrets, except the Hood, with a more complete auxiliary armament, the extreme thickness of armor 2 inches less than in their predecessors, the engines more powerful, and the speed four fifths of a knot better. The Centurion and Barfleur were built lighter, having a displacement of 10,500 tons, 12 inches of armor at the water line, and 4 29-ton guns in the barbettes, but their engines were made equally powerful, giving a speed of 18 knots, and the auxiliary armament, consisting of 10 4.7-inch, 8 6-pounder, and 12 3-pounder quick-firing guns, was better disposed. The first ship built under the programme of 1892 was an improved Centurion, the Renown, having a displacement of 12,350 tons, 10 inches of side armor, a main battery of 4 29-ton, or 10-inch, breech-loading guns mounted in two barbettes, an elaborate and powerful secondary armament, consisting of 10 6-inch, 14 12-pounder, and 12 3-pounder quick-firing guns, and engines of 10,000 horse power, developing a speed of 18 knots. The main feature of the new programme was the construction of 9 battle ships of greater size than any afloat, excepting the two largest of the Italian fleet. This is the Majestic class, comprising the Magnificent, Majestic, Prince George, Victorious, Jupiter, Cæsar, Hannibal, Illustrious, and Mars, of 14,900 tons displacement, with only 14 inches of armor at the water line, carrying 4 12-inch, or 40-ton, guns, with 12 6-inch, 16 12-pounder, and 12 3-pounder quick-firing guns and 5 torpedo tubes, and having engines of 12,000 horse power, giving a speed of 16½ knots with natural draught and 17½ knots with moderate forced draught. The heavy guns are mounted in strong armored barbettes, with fixed loading stations and armored shields protecting the revolving platform, and the 6-inch quick firers are protected by heavy armor. These vessels, launched in 1895 and 1896, were followed in 1897 and 1898 by the Canopus class, comprising the Canopus, Ocean, Goliath, Albion, Glory, and Vengeance, of 12,950 tons, with 12 inches of Harvey armor over the vital parts, but carrying also 4 12-inch guns and 12 6-inch quick firers, with only 18 smaller ones, and having engines of 13,500 horse power, so as to obtain a speed of 18½ knots. The Majestic class has been improved in the Formidable, Irresistible, and Implacable, launched in 1898, to which the estimates of 1899 have added the London, Venerable, and Bulwark. The ships have a displacement of 14,700 tons, armor like their predecessors, but of Harvey steel and more powerful, armament the same, but containing the new Vicker 6-inch gun, engines of 15,000 horse power, with Belleville water-tube boilers, intended to give a speed of 18 knots. Under a supplemental programme 4 battle ships of a modified type are being built—the Duncan, Exmouth,

Cornwallis, and Russell—having a displacement of 14,000 tons, with lighter armor and less draught than the others, so as to be able to pass through the Suez Canal without difficulty, and designed for greater speed and a greater radius of action than any battle ships now afloat. Their length is 405 feet, their breadth 75 feet, their mean draught 26 feet. The engines, of 18,000 horse power, give a speed of 19 knots. The chief armament consists of 4 12-inch breech-loading guns in barbettes, 12 6-inch quick-firing guns, and 12 12-pounders.

The first-class cruisers of the programme of 1889 are the *Edgar*, *Endymion*, *Hawke*, *Royal Arthur*, *Crescent*, *St. George*, *Gibraltar*, *Grafton*, and *Theseus*, the three first having a displacement of 7,350 tons, the four next 7,700 tons, and the two last 7,350 tons again, all with engines of 12,000 horse power, making from 19½ to 19½ knots, and carrying 2 22-ton guns, 10 6-inch quick firers, 10 or 12 6-pounders, and 5 3-pounders. These were followed in 1894 and 1895 by the *Eclipse*, *Minerva*, *Talbot*, *Diana*, *Juno*, and *Venus*, and in 1896 by the *Dido*, *Doris*, *Iris*, *Hermes*, *Hyacinth*, and *Highflyer*, of 5,600 tons, engines of 9,600 horse power, capable of making 19½ knots, and an armament of quick firers alone, 5 6-inch, 6 4.7-inch, and smaller ones. In 1895 the *Powerful* and *Terrible* were launched, more formidable than any of the large protected cruisers recently built by other powers, having a displacement of 14,000 tons, an armament of 2 9.2-inch breechloaders and 12 6-inch, 18 6-pounder, and 12 3-pounder quick-firing guns, and engines of 25,000 horse power, with *Belleville* boilers, giving a speed of 22 knots. The *Furious*, *Gladiator*, *Vindictive*, and *Arrogant*, of 5,750 tons, launched in 1896, are an improvement on the *Eclipse* class, having greater coal capacity and better protection, carrying 4 6-inch, 6 4.7-inch, 9 12-pounder, and 8 small quick firers, and with 10,000 horse power, making 19 or 19½ knots. The first vessel of a later type of first-class deck-protected cruisers, the *Diadem*, was launched in 1896, and in the two years succeeding she was followed by the *Andromeda*, *Niobe*, *Europa*, *Spartiate*, *Argonaut*, *Amphitrite*, and *Ariadne*, all of 11,000 tons displacement, with engines of 16,500 horse power, giving a speed of 20½ knots, the first four carrying 16 6-inch quick-firing guns, with 14 12-pounders and 20 smaller ones, the last four replacing four of the 6-inch with 8-inch guns. All the later protected cruisers have 4-inch curved steel decks over the vital parts and numerous water-tight compartments, and their guns are well protected, and by means of the high free board are placed where they can be most effectively used, especially those in the bow and stern. The latest cruisers are armored vessels of still greater speed than the protected cruisers. The *Cressy* and her sister ships, the *Hogue*, *Aboukir*, *Sutlej*, *Euryalus*, and *Bacchante*, have a displacement of 12,000 tons, an armament of 2 9.2-inch guns and 12 6-inch and 14 12-pounder quick firers, and with engines of 21,000 horse power are expected to make 21 knots an hour. A speed of 23 knots is to be attained by armored cruisers ordered still more recently—the *Drake* and three others—which will have a displacement of 14,100 tons, the same armament as the last, except that there are 4 additional 6-inch guns, and engines of 30,000 horse power, giving a speed of 23 knots. The 9.2-inch guns are in armored shields; the large quick firers in casemates. This class has a length of 500 feet, an extreme breadth of 71 feet, and a mean draught of 26 feet. Two other powerful armored cruisers in the supple-

mentary programme for 1899 will have a length of 400 feet, a breadth of 66 feet, a mean draught of 24½ feet, a displacement of 9,800 tons, engines of 22,000 horse power, giving a speed of 23 knots, and a main armament of 14 6-inch quick-firing guns, protected by 4 inches of steel armor. The Government is adding continually to the formidable fleet of destroyers. With three of the latest a speed of 33 knots has been reached, and one fitted with a turbine propeller is designed to make 36 knots or better. The supplemental programme for 1899 provides for 12 new ones. The shipbuilding programme for 1900 includes 2 battle ships, 2 armored cruisers of 9,800 tons, and 3 smaller cruisers.

The number of officers and seamen as provided in the supplementary estimates for 1899 is 110,640, including the coast guard; the number of marines is 18,505. The number of flag officers has been increased from 68 to 80; of captains, from 208 to 245; of commanders, from 304 to 360; of lieutenants, from 1,150 to 1,550; of engineer officers, from 950 to 1,050.

Commerce and Production.—The area sown to grain in Great Britain has decreased from 9,431,490 acres in 1874 to 7,400,335 in 1898, the acreage of green crops from 3,581,276 to 3,133,521 acres, flax from 9,394 to 902 acres, hops from 65,805 to 49,735 acres, small fruits from 74,547 to 69,753 acres, and bare fallow from 660,206 to 352,094 acres, while clover and grass meadows have increased from 4,340,742 to 4,911,189 acres and permanent pastures from 13,178,412 to 16,559,502 acres. The number of horses has increased from 1,311,739 to 1,517,160, cattle from 6,125,491 to 6,622,364, and pigs from 2,422,832 to 2,451,595, while sheep have fallen away from 30,313,941 to 26,743,194 in number. In Ireland the decrease in grain crops has been from 1,901,508 acres to 1,390,941 acres, in green crops from 1,353,362 acres to 1,105,026, in flax from 106,886 acres to 34,489, in bare fallow from 18,056 in 1875 to 16,857 in 1898, and in meadow there has been a decrease to 1,252,889 acres in 1898 from 1,285,357 in 1875, while in permanent pasture the area has grown from 11,189,018 to 11,390,950 acres. The number of horses in Ireland has increased from 468,089 in 1874 to 513,788 in 1898, cattle from 4,118,113 to 4,486,242, sheep have declined from 4,437,613 to 4,287,274, and pigs have increased from 1,096,494 to 1,253,882. The acreage of wheat in Great Britain in 1898 was 2,102,220; barley, 1,903,652; oats, 2,917,760; beans, 232,007; peas, 175,901; potatoes, 524,591; and turnips, 1,772,406 acres. In Ireland the acreage of wheat was 52,862; barley, 158,151; oats, 1,165,295; beans, 1,712; peas, 537; potatoes, 664,912; and turnips, 306,936 acres. The number of farms in Great Britain in 1895 was 520,106, not counting holdings of less than an acre. Nearly three fourths of the land was divided into farms of from 50 to 500 acres, nearly half of it in farms between 100 and 300 acres, though half of the total number of farms were less than 20 acres. Of the total number, 439,405 were rented, 61,014 were owned by the occupiers, and 19,687 were partly rented. Between 1885 and 1895 holdings of less than 5 acres decreased in number from 135,736 to 134,677; those also above 300 acres decreased from 19,364 to 18,787; in those between 100 and 300 acres there was an increase from 79,573 to 81,245, between 50 and 100 acres from 64,715 to 66,625, and between 5 and 50 acres from 232,955 to 235,481. There are 579,133 holdings not exceeding an acre in size. In Ireland there were 576,975 agricultural holdings in 1897, of which 1,563 exceeded 500 acres, 8,245 were be-

tween 200 and 500 acres, 23,041 between 100 and 200 acres, 57,454 between 50 and 100 acres, 74,081 between 30 and 50 acres, 133,308 between 15 and 30 acres, 155,064 between 5 and 15 acres, 62,030 between 1 and 5 acres, and 62,189 not exceeding an acre.

The value of the fish landed on the coasts of the United Kingdom in 1898 was £8,493,498. The quantity, not including shellfish, was 777,916 tons, valued at £7,936,017. The imports of fish for consumption were 103,071 tons, valued at £2,808,381. The value of herrings exported was £1,364,374; of all fish, £2,037,794.

The quantity of iron ore raised in 1897 was 13,787,878 tons, value £3,217,795, containing 4,736,667 tons of iron, value £11,394,779; iron pyrites raised, 10,583 tons, value £4,525; lead ore, 35,338 tons, value £275,409, containing 26,562 tons of metal, value £332,578; tin ore raised, 7,120 tons, containing 4,453 tons of metal, value £291,336; copper ore raised, 7,132 tons, value £18,706, containing 518 tons of metal, value £27,096; bog iron ore raised, 7,124 tons, value £1,781; copper precipitate raised, 220 tons, value £2,320; alum, clay, and shale raised, 13,938 tons, value £2,899, containing 310 tons of metal, value £45,880; sodium, 85 tons, value £12,750; nickel ore, 300 tons, value £300, containing 7 tons of metal, value £1,050; gold ore raised, 4,517 tons, yielding 2,032 ounces, value £7,185; silver extracted, 249,156 ounces, value £28,614; total value of metallic minerals raised, £3,853,389; total value of metals extracted, £12,268,091. The quantity of coal mined was 202,129,931 tons, value £59,740,009; clays, 12,705,106 tons, value £1,453,128; sandstone, 4,904,109 tons, value £1,524,700; slate, 609,194 tons, value £1,649,576; limestone, 11,003,524 tons, value £1,155,998; salt, 1,903,493 tons, value £620,898; oil shale, 2,223,745 tons, value £555,936; granite, 1,847,323 tons, value £552,604; basalt, etc., 2,355,554 tons, value £441,391; chalk, 3,858,448 tons, value £163,595; gravel and sand, 1,356,787 tons, value £111,332; gypsum, 181,385 tons, value £66,978; arsenic and pyrites, 17,302 tons, value £85,529; barytes, 22,723 tons, value £24,117; ocher, 14,422 tons, value £12,997; other minerals, 119,307 tons, value £33,629; total value of nonmetallic minerals, £68,190,412. The total value of minerals, including metallic ores, was £72,043,801, of which £50,285,601 represent the produce of English mines, £11,778,614 of Welsh, £53,116 of Manx, £9,727,402 of Scotch, and £199,068 of Irish. The number of persons employed in and about the mines was 728,713, of whom 558,305 worked underground. The coal exports in 1897 were 37,096,918 tons, valued at £16,654,955. The imports of iron ore, exclusive of 467,318 tons of purple ore, in 1897 were 5,968,680 tons; value, £4,436,004. The exports of iron ore were only 2,588 tons. Of the imports, 5,067,148 tons came from Spain. The 380 blast furnaces in operation in 1897 smelted 21,327,013 tons of ore, making 8,796,465 tons of pig iron. The exports of pig and puddled iron were 1,201,104 tons; imports, 158,003 tons. The exports of bar and angle iron were 167,688 tons; of railroad iron, 782,045 tons; of wire, 51,472 tons; of plates for tinning, 58,648 tons; of tin plates, 271,230 tons; of cast and wrought iron, 374,982 tons; of hoops and plates, 345,947 tons; of old iron, 86,833 tons; of unwrought steel, 299,719 tons; of wrought steel and iron, 46,438 tons; quantity of iron and steel exported, 3,686,106 tons. The imports of copper ore and regulus in 1897 were 171,186 tons; of unmanufactured copper, 64,360 tons; of lead, 167,441 tons; of tin, 26,786 tons; of zinc, 69,884 tons.

The quantity of raw cotton imported in 1897 was 1,724,160,368 pounds, of which 225,070,272 pounds were re-exported, leaving for home consumption 1,499,090,096 pounds. The imports of wool were 740,748,963 pounds, of which 371,502,812 pounds were re-exported and 369,246,151 pounds retained for home consumption. Of the imports, 491,310,839 pounds came from Australasia. The cotton manufactures of the United Kingdom amount to about £100,000,000 a year, woolen manufactures to £50,000,000, and linen manufactures to £20,000,000. The capital employed in the textile industries is about £200,000,000, and they support a laboring population of over 5,000,000. The average value of the cotton exports for three years ending with 1898 has been £66,000,000; of woolen exports, £23,000,000; of linen exports, £6,000,000; total textiles, £95,000,000. The average consumption of raw cotton has been 1,668,000,000 pounds; of wool, 624,000,000 pounds; of flax, 236,000,000 pounds. The imports of cotton in 1898 were 2,128,000,000 pounds; re-exports, 203,000,000, leaving for home consumption 1,925,000,000 pounds; actual consumption, 1,735,000,000 pounds. The imports of wool in 1898 were 694,000,000 pounds, the quantity clipped from imported sheepskins 26,000,000 pounds, the domestic production 139,000,000 pounds, the quantity of goats' hair imported 24,000,000 pounds, and the import of woolen rag 68,000,000 pounds, making the total supply of wool, hair, and shoddy 951,000,000 pounds, of which 283,000,000 pounds of foreign and 12,000,000 pounds of domestic wool were exported, leaving for home consumption 656,000,000 pounds. The imports of flax and tow were 218,000,000 pounds in 1898, and the domestic production was 22,000,000 pounds, making a total of 240,000,000 pounds, of which 13,000,000 pounds were exported, leaving 227,000,000 pounds for home consumption. The exports of cotton piece goods were 5,216,000,000 yards; of woollens, 160,000,000 yards; of linens, 148,000,000 yards; total piece goods, 5,524,000,000 yards. The exports of cotton yarns were 247,000,000 pounds; of woolen yarns, 59,000,000 pounds; of linen yarns, 17,000,000 pounds; total yarn exports, 323,000,000 pounds. The value of cotton manufactures exported was £64,900,000; of woolen manufactures, £20,100,000; of linen manufactures, £5,300,000; total exports of textiles, £90,300,000.

The total value of merchandise imports in 1898 was £470,604,198, against £451,604,960 in 1897. About 7 per cent. of the imports are subject to duty. The exports of articles of British produce and manufacture in 1898 amounted to £233,390,792, against £234,219,708 in 1897; exports of foreign and colonial produce, £60,619,199, against £59,954,410; total value of imports and exports of merchandise, £764,614,189, against £745,203,078 in 1897, £738,118,118 in 1896, £702,522,065 in 1895, and £682,130,677 in 1894. The share of England and Wales in the total trade of 1898 was £676,376,000; of Scotland, £57,811,000; of Ireland, £11,016,000. The imports of live animals were £10,385,676 in value, and exports £1,105,170. The imports of articles of food and drink were £166,894,715 free of duty and £27,028,560 dutiable, and the domestic exports were £21,084,326. The imports of tobacco were £3,877,038. The imports of metals were £21,850,656; of chemicals, dyestuffs, and tanning substances, £5,483,230; of oils, £8,357,177; of textile materials, £71,268,397; of raw materials for various industries, £52,228,035; of manufactured articles, £87,119,504; of miscellaneous articles, £14,797,902; imports by parcel post, £1,313,308.

The exports of yarns and textile fabrics of British manufacture were £94,512,109 in value; of metals and metal manufactures, except machinery, £32,791,044; of machinery, £18,380,076; of apparel and articles of personal use, £9,573,380; of chemicals and medicinal preparations, £8,373,099; of all other manufactured or partly manufactured articles, £33,324,966; exports by parcel post, £2,139,660. The quantity of cereals and flour imported in 1898 was 190,365,323 hundredweight, valued at £62,899,258. The imports of wheat, excluding flour, were 15,240,000 quarters in 1898, compared with 14,659,600 quarters in 1897, 16,361,600 in 1896, 14,063,700 in 1890, 12,752,800 in 1880, and 7,131,100 in 1870. The quantity of flour was 21,017,109 hundredweight, of which 17,445,890 hundredweight came from the United States. Of wheat, 37,804,300 hundredweight was imported from the United States, 9,537,900 from India, 6,232,500 from Russia, 5,012,030 from Canada, 4,034,700 from the Argentine Republic, 807,300 from Chili, and the remainder from Germany, Bulgaria, and Australia. The imports of potatoes in 1898 were 6,752,728 hundredweight; of rice, 4,546,423 hundredweight; of bacon and hams, 7,683,374 hundredweight; of fish, 2,979,824 hundredweight; of refined sugar, 16,419,397 hundredweight; of raw sugar, 14,692,906 hundredweight; of butter, 3,209,093 hundredweight; of margarine, 899,875 hundredweight; of cheese, 2,339,452 hundredweight; of beef, 3,309,166 hundredweight; of preserved meat, 573,947 hundredweight; of fresh mutton, 3,314,003 hundredweight; of cattle, 569,066 head; of sheep and lambs, 663,749; of spirits for consumption, 7,064,952 gallons; of wine, 16,616,645 gallons. The imports of tea for consumption were 235,414,105 pounds. The tea imports in 1897 were 231,399,774 pounds, 50 per cent. of which came from India and 36 per cent. from Ceylon, while China, which furnished 81 per cent. of the tea consumed in the British Islands in 1878, contributed less than 11 per cent.

The values of the imports of merchandise and of the exports of articles of British produce and manufacture to the various British colonies in 1897 are given in the following table:

COUNTRIES.	Imports.	Exports.
India.....	£24,813,099	£27,393,091
Australasia.....	29,362,129	21,310,894
British America.....	19,538,998	5,476,191
South and East Africa.....	5,131,196	13,665,561
Straits Settlements.....	3,643,294	2,496,396
Ceylon.....	4,698,378	1,081,481
West Africa.....	2,153,412	1,763,461
British West Indies.....	1,453,099	1,784,185
Hong-Kong.....	606,314	1,975,374
Channel Islands.....	1,327,111	1,092,216
British Guiana.....	523,566	530,700
Malta.....	74,908	749,707
Mauritius.....	94,548	264,982
All other possessions.....	609,036	1,137,455
Total.....	£94,018,933	£90,675,063

The principal articles of British produce and manufacture exported in 1898 were cotton piece goods of the value of £55,986,598; cotton yarn, £8,921,427; woolen piece goods, £13,702,307; woolen and worsted yarn, £4,625,898; linen piece goods, £4,388,178; linen yarn, £885,965; jute manufactures, £1,853,744; jute yarn, £468,372; apparel and haberdashery, £6,197,946; iron and steel and manufactures thereof, £22,640,092, comprising pig iron for £2,736,804, bar, bolt, rod, and angle iron for £995,625, railroad iron of all sorts for £3,016,258, wire for £772,844, tin plates for £2,753,708, hoops, sheets, and plates for £3,313,937, cast and wrought iron of all sorts for £4,726,013, old iron for £240,210, and steel or

steel and iron manufactures for £4,084,693; hardware and cutlery, £1,989,001; copper, £2,798,746; machinery, £18,380,076; coal, coke, and patent fuel, £18,134,690; chemical products, £8,373,099.

The value of goods transhipped in transit was £10,752,108 in 1897. The imports of gold coin and bullion in 1898 were £43,721,460, and exports £36,590,050; the imports of silver were £14,677,799, and exports £15,023,651.

The values of the imports from foreign countries and of the exports to them of articles of British produce and manufacture in 1897 are given in the following table:

FOREIGN COUNTRIES.	Imports.	Exports.
United States.....	£118,041,627	£20,994,631
France.....	53,846,993	13,818,819
Germany.....	26,189,469	21,602,423
Netherlands.....	23,971,316	8,854,696
Russia.....	22,284,365	7,513,166
Belgium.....	20,885,812	8,231,688
Spain.....	18,195,660	8,330,747
Denmark.....	10,968,397	6,083,195
Egypt.....	9,294,240	4,435,101
Sweden.....	9,089,149	3,565,429
Turkey.....	6,150,163	6,454,397
Argentine Republic.....	5,753,919	4,301,135
Brazil.....	3,786,416	431,354
Italy.....	3,817,292	5,594,900
China.....	2,684,722	5,143,342
Norway.....	4,995,461	2,250,734
Japan.....	1,283,125	5,807,823
Chili.....	3,191,683	2,236,478
Portugal.....	2,616,662	1,416,687
Roumania.....	2,358,508	1,340,231
Austria.....	1,376,585	1,553,364
Greece.....	1,636,985	833,222
Java.....	518,032	1,808,416
Mexico.....	598,884	1,602,618
Peru.....	1,453,627	725,211
Central America.....	1,013,523	645,106
Colombia.....	556,530	1,191,022
Philippine Islands.....	1,373,880	400,264
Foreign East Africa.....	126,161	1,296,501
Foreign West Africa.....	502,587	878,408
Uruguay.....	389,904	795,616
Algeria.....	671,014	273,304
Bulgaria.....	396,532	585,901
Morocco.....	211,923	412,753
Versia.....	197,778	427,150
Venezuela.....	63,382	564,667
Spanish West Indies.....	42,913	593,637
Tunis and Tripoli.....	293,571	265,743
Ecuador.....	92,412	418,049
Cochin China and Tonquin.....	360,229	73,325
Siam.....	246,940	150,880
Hayti and Santo Domingo.....	74,034	296,964
Madagascar.....	67,895	158,610
All other countries.....	1,187,915	1,667,181
Total.....	£287,010,027	£153,544,645

Navigation.—The number of vessels engaged in foreign commerce entered at British and Irish ports during 1897 was 64,047, of 44,923,000 tons, of which 39,272, of 32,191,000 tons, were British and 25,375, of 12,732,000 tons, were foreign. The number cleared was 64,778, of 45,276,000 tons, of which 39,054, of 32,235,000 tons, were British and 25,724, of 13,040,000 tons, were foreign. The tonnage of vessels entered with cargoes was 34,636,000, of which 25,340,000 tons were British and 9,296,000 tons were foreign. The tonnage cleared with cargoes was 39,308,000, of which 28,101,000 tons were British and 11,207,000 tons foreign. The total tonnage entered and cleared was 73,944,000 tons, of which 53,441,000 tons were British. Of the foreign tonnage entered and cleared, amounting to 25,772,318 tons with cargoes and in ballast, Norway had 6,362,542 tons, Germany 4,046,221 tons, Denmark 2,579,530 tons, Sweden 2,531,342 tons, the Netherlands 2,522,509 tons, France 2,112,648 tons, Spain 1,471,597 tons, Belgium 1,352,450 tons, the United States 710,950 tons, Russia 688,678 tons, Italy 501,526 tons, and Austria-Hungary 273,942 tons. The tonnage en-

tered and cleared at the port of London was 15,197,659 tons; at Cardiff, 11,990,609 tons; at Liverpool, 11,261,051 tons; at Newcastle, 5,210,424 tons; at Hull, 4,140,982 tons; at Glasgow, 3,421,386 tons; at Southampton, 3,008,209 tons; at Newport, 2,618,710 tons; at North and South Shields, 2,172,313 tons; at Middlesboro, 1,996,083 tons; at Sunderland, 1,943,967 tons; at Leith, 1,831,245 tons; at Grimsby, 1,723,666 tons; at Swansea, 1,600,869 tons; at Kirkcaldy, 1,570,203 tons; at Grangemouth, 1,483,116 tons; at Bristol, 1,091,316 tons; at Manchester, 870,921 tons; at Hartlepool, 852,558 tons; at Belfast, 685,400 tons.

The number of vessels registered as belonging to the United Kingdom on Jan. 1, 1898, was 20,601, of 8,953,171 tons, of which 11,911, of 2,589,570 tons, were sailing vessels and 8,590, of 6,363,601 tons, were steamers. The number of vessels engaged in the home and foreign trade was 15,423, of 8,925,813 tons. The number of seamen employed was 240,931, of whom 33,898 were foreigners. The total number of vessels belonging to the British Empire was 34,902, of 10,416,442 tons. The number of vessels built and first registered during 1897 was 1,054, of 482,267 tons, of which 518, of 66,729 tons, were sailing vessels and 536, of 415,538 tons, were steamers. Of the total number of vessels belonging to the United Kingdom, 6,871 sailing vessels, of 434,125 tons, and 2,906 steamers, of 432,839 tons, were employed in the home trade and the coasting trade between the mouth of the Elbe and Brest; 180 sailing vessels, of 22,645 tons, and 313 steamers, of 256,223 tons, were engaged partly in the home trade and partly in the foreign trade; and 1,534 sailing vessels, of 2,016,247 tons, and 3,619 steam vessels, of 5,763,734 tons, were engaged in the foreign trade alone.

Railroads, Posts, and Telegraphs.—The total length of railroads open to traffic in the United Kingdom on Jan. 1, 1898, was 21,433 miles, of which 14,818 miles were in England and Wales, 3,447 miles in Scotland, and 3,168 miles in Ireland. The paid-up share and loan capital amounted to £1,089,765,000. The number of passengers carried during 1897 was 1,030,420,201, exclusive of holders of season tickets. The receipts from all sources were £93,737,054, of which £40,518,064 came from passengers and £47,857,172 from freight. The working expenses were £53,083,804, 57 per cent. of the gross receipts. There were 1,031 miles of tramways on June 30, 1897, the receipts of which for the previous year were £4,235,533 and the expenses £3,198,444, the number of passengers having been 788,569,669.

The number of letters that passed through the British post office during the year ending March 31, 1898, was 2,012,300,000, of which 1,711,200,000 were delivered in England and Wales, 177,400,000 in Scotland, and 123,700,000 in Ireland, being 50 per head of population for the whole United Kingdom, 55 per head for England and Wales, 42 per head for Scotland, and 27 per head for Ireland. The number of postal cards carried by the post office in 1898 was 360,400,000; book packets, 727,300,000; newspapers, 150,900,000; parcels, 67,800,000; money orders, 11,128,258, for the total amount of £32,114,579, of which 9,429,609, for £27,494,145, were inland orders; of postal orders, 71,380,975, for the gross amount of £26,014,583. The receipts of the postal service were £12,420,376 and the expenses £8,689,713, leaving a net revenue of £3,730,663. The telegraph receipts were £3,071,723 and expenses £3,381,261, leaving a deficit of £309,538, not including £298,888 interest on the debt created for the purchase

of the telegraph lines in 1870. The telegraph lines had on March 31, 1898, a total length of 41,516 miles, with 280,578 miles of wire. The number of messages sent during the year was 83,029,999, of which 69,961,350 were sent in England and Wales, 8,463,393 in Scotland, and 4,605,256 in Ireland.

The Session of Parliament.—The fifth session of the fourteenth Parliament of the Queen's reign was opened by commission on Feb. 7, 1899. The royal speech referred to the establishment of order in the conquered provinces of the Soudan by British and Egyptian officers after the subjugation of the Khalifa's dominion by Anglo-Egyptian troops, the delegation of the government of Crete by the powers to Prince Georgios of Greece, the peace conference at The Hague, and the conference to consider the dangers of anarchist conspiracy that was summoned after the assassination of the Empress of Austria, with the conclusions of which the British delegates were unable to concur, though some amendments in the existing British laws upon the subject would be submitted; also to the West Indian hurricane, to the plague in India and the abundant harvests and reviving trade of that empire, and to the recognition by Cape Colony of the principle of common responsibility for the naval defense of the empire as shown by the offer of a permanent annual contribution. The legislative programme comprised a bill for more fully organizing the government of the metropolis; the re-introduction of a measure for the establishment of a board for the administration of primary, secondary, and technical education in England and Wales; the resubmission of provisions for simplifying the process of private legislation for Scotland; and a measure for enabling local authorities to assist the occupiers of small dwellings in the purchase of their houses. In the secondary rank were promised bills for encouraging agriculture and technical instruction in Ireland, and for the relief of the tithe rent charge in that country; for providing a more complete distribution of water supply in cases of emergency in the metropolis; for the regulation of limited companies; for the prevention of the adulteration of articles of food; for controlling the contracts of money lenders; for amending the factory acts in certain respects; and for amending the law in respect to agricultural holdings. The Irish rent-charge relief bill was dropped almost immediately after its introduction, and the factory acts amendment bill and the agricultural holdings bill were not brought in at all, while the companies bill and the money lenders bill, after being carefully considered in the upper house, were sacrificed to more pressing business in the House of Commons. The London government bill, the water companies bill, the Scotch private legislation bill, and the food and drugs adulteration bill were the first ones advanced to a second reading. The debate on the address lasted two weeks, but the Government could not be vigorously assailed on any point by the weak forces of the Opposition. Samuel Smith raised the question of lawlessness in the Church, and his amendment was resisted by Arthur Balfour, the leader of the house, who declared it premature and prejudicial to the legitimate authority of the bishops, which view was sustained by 221 votes against 80. The Welsh as well as the Irish Nationalists made the usual plea for their cause. Mr. Redmond's declaration in favor of home rule for Ireland drew from Sir Henry Campbell-Bannerman, who had succeeded Sir William Vernon Harcourt as leader of the

Opposition, the chilling announcement that the Liberal party was not bound to give precedence to that policy. A majority of 300 against 43 condemned the home-rule amendment, and for the remainder of the session the anti-Parnellite wing of the Irish Nationalists maintained a sullen silence, nor were the other groups much more active, except the individual critics and orators who assailed the foreign and colonial policy of the Government. The prospect of union among the Irish sections seemed farther than ever. The proposal to introduce automatic couplings on British railroads, urged by Mr. Madison, was at first accepted by the President of the Board of Trade, who was willing to introduce a bill on the subject; but experts criticised the measure so severely that it was withdrawn, in order that a thorough inquiry might be instituted.

In debating the heavy supplementary estimates for naval and military purposes, the Opposition censured the employment of the army in South Africa, Uganda, and the Soudan, and the raising of money to build defensive works by loans. Sir Henry Fowler, who conducted the budget debate for the Opposition, was defeated on his motion to reject the budget by 280 votes against 155. The Chancellor of the Exchequer had strong support for his reduction of the sinking fund from financiers who deprecated a too rapid redemption of the public debt, apart from the exigencies of the budget. The increase of the wine duties, however, excited so much resentment in France and Spain, and especially in Australia, where the infant wine industry would be strangled unless colonial wines were excepted, that the Chancellor of the Exchequer consented to a considerable mitigation in the pressure of the new duties, seeking a partial indemnification in a surtax on spirits imported in bottles.

The London government bill aimed at supplanting or curbing the power of the London County Council, often obnoxious and hostile to the party in power, by creating subordinate municipalities, generally corresponding to those existing in provincial towns, with wider powers than those committed to the existing vestries and district boards. The city of London was left untouched. The authority of the London County Council was not directly interfered with, yet it was provided that there might be a transfer of power to the new bodies or from them to the council. The areas to be incorporated were in the main those recognized in existing divisions, though some were left to be delimited by boundary commissioners. Westminster, enlarged so as to embrace the whole of the old parliamentary city, was placed apart in an independent position. The limits of the boroughs were to range between a population of 100,000 or a ratable value of £500,000 and a maximum population of 400,000. In the metropolis the opposition to the measure was intense, not only from the Radicals, who sustain and control the county council, but from the classes that have been influential in the vestries. In the House of Commons, however, no effective resistance could be made to the bill, which was piloted through by Mr. Balfour. Herbert Gladstone was supported by Mr. Asquith in opposing the second reading, but only with reserve by Sir Henry Campbell-Bannerman, and his amendment was lost by 245 votes against 118. In the committee of the whole Sir Lawson Walton could only muster 49 votes in support of his proposal to divide the greater Westminster into two boroughs. On minor issues the Government made concessions. Changes were made in the areas of the boroughs, and the new bodies were

given the option of having annual or triennial elections. On both sides of the house, and especially on the Liberal side, members advocated the principle of making women eligible to municipal offices, and the Government agreed to leave this an open question, for the ministers themselves were divided in opinion, Mr. Balfour, in fact, being in favor of the admission of women, as well as the Prime Minister. When a motion was made that neither sex nor marriage should act as a disqualification, it was decided by 179 votes to 77 that women should not be eligible to the office of mayor, but might be elected councilors or aldermen. Another amendment was voted immediately afterward, by 155 votes against 124, to alter this decision by excluding them from the aldermanship; but this was reversed later when, on the motion of Mr. Courtney, the provision was restored, by 196 votes to 161, allowing women to hold the office either of councilor or alderman. In the House of Lords, however, on the motion of Lord Dunraven, against which the Marquis of Salisbury made a strong plea, while the Earl of Halsbury and the Duke of Devonshire opposed his views with equal warmth, the exclusion of women from all the offices was voted by a majority of 182 against 68, although by existing statutes women had the right to sit on the London vestries. When the amendment of the Lords was considered in the lower house Mr. Courtney endeavored to retain the right of women to sit as councilors, giving up their claim to be admitted to the mayoralty or aldermanship; but Mr. Balfour announced the decision of the Government not to enter into a conflict with the House of Lords on this issue, and he was supported by a majority of 246 votes to 177. The act makes no immediate inroad into the authority or position of the central governing body. The existing local administrative bodies, such as vestries, boards, trustees, and commissioners, having ill-defined functions and areas of jurisdiction varying greatly in size, are all swept away at once, their place being taken by the borough councils, consisting of the mayors, aldermen, and councilors of the boroughs into which the whole of the metropolitan area, exclusive of the city of London, is divided. These councils will be intrusted immediately with the municipal and sanitary work hitherto performed by those in co-ordinate local authorities, and it is hoped that enough dignity and honor will attach to the new offices to attract men of a higher class than those who have usually sat on the vestries. One of the duties transferred to the councils is that of maintaining the streets, but with police, gas, and water they have nothing to do.

Measures not in the ministerial programme were introduced at various periods of the session, some of them very late. The Niger Company bill, the colonial loans bill, and the telephone bill were among the most important; but the chief of these, taking rank only after the London government bill in the business of the session, was the tithe-rent-charge rating bill, which was brought in early. Although the Government had made promises to the clergy to bring in a measure to relieve them from the unequal system of rating, the bill was not mentioned in the Queen's speech for the reason, as alleged, that it was desirable to deal with the subject in connection with the budget. No provisions were made in the budget, however, for the promised relief. It was not until June 22 that a bill was laid before the house for the discharge out of the annually increasing imperial contribution to the local taxation account of half the rates pay-

able by clergymen on the tithe rent charge attached to their benefice. The amount to be provided for the year was computed at £87,000. The introduction of this subject afforded the opportunity to discuss what was called the crisis in the Church. Sir William Harcourt, after resigning the leadership of the Liberal Opposition, threw himself into the campaign against the ritualists, devoting his controversial powers and legal acumen to exposing breaches of ecclesiastical law committed by the High Church clergy and condoned or permitted by the episcopacy. The conduct of the extreme ritualists was brought up for discussion several times, but the ministers stayed off debate. The primate pleaded for more time to introduce discipline and restore harmony in the Church, and the House of Lords accepted this plea when, at the beginning of the session, the Bishop of Winchester called attention to the attacks made by Sir William Harcourt and others on the ritualists, and his scathing strictures on clerical anarchy and the apathy of the bishops who saw the rubrics violated and their own authority ignored. After the Easter intermission Mr. Gedge moved a resolution of censure against the English Church Union, which had issued a declaration practically asserting the right to interpret the laws of the Church independently of episcopal injunctions or the decisions of ecclesiastical courts. His amendment was withdrawn in favor of one deploring the lawlessness of a section of the clergy and recommending obedience to the bishops; yet to this the house insisted on adding, by a majority of 200 to 14, an affirmation of the binding force of the law as laid down by the courts having jurisdiction in ecclesiastical affairs. Mr. Balfour condemned the refractory behavior of Lord Halifax and his allies in the High Church party, and urged that the true interests of the Church depended on a policy of moderation and comprehension. The Protestant or Low Church party favored a Church discipline bill drawn up by some of its members, which affirmed the royal supremacy over the Church, abolished the power of the bishops to quash prosecutions, and substituted for imprisonment as a punishment for ecclesiastical offenses that of the deprivation of the clerical office. This bill came up for a second reading, when the Attorney-General killed it by an amendment declining to create new offenses or to supersede the episcopal authority, while declaring that if the efforts of the bishops to maintain discipline were not speedily effectual further legislation would become necessary. The bill and the amendment were subjects of a heated discussion, in which religious affiliations obliterated party lines, except that Sir William Harcourt led the attack and denounced the bishops, while Mr. Balfour was their apologist, though accepting the view that it is necessary to preserve the character of the national Church as remodeled and purified at the Reformation. The Attorney-General's amendment was finally carried by 310 votes to 156. The attack on the tithe bill was more vigorous and determined on account of the passions raised by this controversy over ritualism. Mr. Asquith and Sir William Harcourt were its most vigorous assailants, and Sir Henry Fowler and Sir Henry Campbell-Bannerman sustained them in their contention that this gift out of the imperial funds was tantamount to a new endowment of the Church, and, like other grants made by the Tory Government in relief of local taxation, was a dole to the rich and avaricious made at the expense of the general body of taxpayers. One of the Liberal Union-

ists, Mr. Whiteley, a member for Stockport, succeeded from the ministerial party and went over to the Liberals on this ground. The bill was carried to a second reading by 314 votes to 176, debated in committee, and finally carried through without amendment, after one long night session, by a majority of 182 against 117. It had the authoritative report of an investigating commission as its basis, and in the House of Lords the Prime Minister overcame the slight opposition that was offered by portraying the hardships under which clerical tithe owners suffered and the illogical system of which they were the victims.

The Board of Education bill was introduced in the upper house by the Duke of Devonshire, and when it passed the second reading in the lower house it was referred to a standing committee, a course that was taken likewise with the food and drugs bill, the small houses bill, the Irish agricultural and technical education bill, and other ministerial measures. The new Board of Education created by this act is a body constituted like the Board of Trade, having a parliamentary president and secretary. It has powers of inspection and examination over secondary schools of every kind, but they are mandatory only in the case of schools under the endowed schools act. In the case of schools maintained for youth of the upper or middle classes of society no grants will be made out of the public funds. Registers of teachers are to be kept under regulations framed on the advice of a consultative committee, representing the universities and other teaching bodies. The aristocratic friends of the public-school system, who feared that the time-honored institutions in which the character distinguishing the Englishman of birth and breeding is largely formed would be revolutionized and the education of all classes made to conform to a modern and scientific but leveling and vulgarizing system, accepted the bill because it does not interfere forcibly with the cherished traditional methods and customs of English higher education. Thoroughgoing educational reformers accepted it as a tentative measure, an initial step in the right direction, after having drawn from the ministers the admission that the bill was not intended to be a final solution, but only an experimental beginning. Some of the Conservatives took alarm at the powers committed to the responsible minister, dreading lest the bill should take away the safeguards now imposed in the case of the Charity Commissioners, and place the schools at the mercy of a partisan or innovating minister; but their fears were not shared by many, and were made light of by the Government speakers. Mr. Long's adulteration of food and drugs bill, notwithstanding the examinations and elucidations of the standing committee, was the subject of a long discussion, and the restrictions on the trade in margarine and all clauses imposing responsibility on retailers for the purity and quality of their goods met with strong opposition. The repugnance of British legislators to placing restraints on the freedom of trade and contract was shown also in the deliberations on the money-lending bill, which was introduced in the upper house by Lord James. The parliamentary investigation of the methods of usurers revealed an enormous amount of poverty and despair caused by the extortions that professional money lenders practice under the shield of the law. The bill placed restrictions on their common deceptions and disguises, such as doing business under several different names. It also sanctioned the principle of limiting the amount of interest and that of reopening and

revising contracts. These features, although the serious and widespread evils they were intended to remedy were recognized by all and the money lenders themselves had no champions in Parliament, were so opposed to the accepted economic theories that the Government yielded to the criticisms made on both sides of the house and withdrew the bill.

The Irish agricultural and technical-education bill creates a department of the Irish administration for carrying out its provisions, having a vice-president under the Chief Secretary and an annual fund, apart from parliamentary grants, of nearly £170,000, derived from the Irish Church surplus and savings coming from the reduction of the judiciary. The Irish Nationalists were at first inclined to criticise the measure, but when they saw that it was popular in Ireland they gave it a qualified approval. The Scotch private legislation bill authorizes commissions, appointed by the chairmen of committees of both houses of Parliament, to conduct local inquiries into the nature and value of proposed private bills. Mr. Balfour gave a pledge to strengthen the control of Parliament over Scotch private business, and consequently changes were made in the bill, providing that orders made by the Scotch Secretary shall not be valid until they have been confirmed by Parliament, and that the commissioners appointed to conduct inquiries shall be members of Parliament whenever they can be found in either house willing and available. The telephones bill was a much-debated measure. The telephone system of Great Britain has had a belated development, and as far as it has gone it is in the hands of the National Telephone Company. A large majority of the public wanted the business taken away from this unpopular and unaccommodating monopoly. The precedent established when the telegraphs were nationalized of paying for the franchise at the market rate of the shares was a bar to the expropriation of the company and the assumption of the telephone business of the country by the postal and telegraph department of the Government except at the cost of an annual deficit. The company was willing to sell out to the Government only as a going concern, and the ministry would not sanction forcible expropriation on any other terms. The post office would have to begin, therefore, by paying an enormous sum and incurring a great debt, only to receive in return a vast quantity of inferior or useless apparatus. As a compromise the Government decided to grant to municipalities the right which they were demanding from all parts of the country to set up telephone exchanges of their own. Many of the municipalities refused to give the company the right to string new wires, and thus brought pressure on the Government to obtain its sanction for municipal telephones. As the ministers were unwilling to confer on the company the rights of eminent domain, they finally gave in to the popular demand and brought in the bill permitting this extension of the rights of municipal trading and ownership. The municipalities may conduct the business themselves or may transfer it to a local company, and the different municipal systems may establish communication with each other, and thus compete with the monopoly in long-distance as well as local traffic. The shareholders of the company, however, displayed no alarm on account of the threatened competition. The factory acts amendment bill was postponed till another year at the suggestion of Sir Charles Dilke, who desired a full investigation of the working of existing acts with

a view to amending and consolidating them in a comprehensive measure. Mr. Chamberlain was challenged by the Opposition to introduce the promised legislation to give pensions to superannuated workmen. Some of the Radicals were eager to advance such a scheme themselves, and every year as the parliamentary period drew nearer to a close their demand grew louder that the Unionist leader should redeem the pledge that was given to the people by his immediate followers and in his name before the last elections. The House of Commons referred the question to a select committee, appointed to consider and report upon the best means of improving the condition of the aged deserving poor. The adverse report of a royal commission strengthened the opinion of several of his ministerial colleagues against such legislation. It was impossible, therefore, for him to redeem that promise; but another of the projects included in his programme of social legislation he did give effect to by introducing and passing a small-houses bill, to give to British workmen facilities for becoming the owners of their houses, analogous to the facilities granted to Irish cottiers under the land-purchase act. Powers under Mr. Chamberlain's act were conferred upon municipalities, but these were limited and hedged in with safeguards to prevent waste or loss of public funds and unfair competition with the building societies, of which there are 2,300, and £100,000,000 at least have been advanced by them for the construction of dwellings. Where the rate reaches a penny a municipality must cease making advances for five years. The metropolitan water companies bill, intended to give to the companies that supply London with water power to make further provision against a water famine, became law early in the session. The limited liability companies bill, which has been before Parliament before, was once more allowed to lapse, although the House of Lords had expended much time and trouble upon it. A metropolitan street-traffic bill and a Scotch parish churches bill were sacrificed also. The abandonment of the Irish tithe-rent-charge bill was resented by the Irish landlords, because the Government had promised the relief afforded by that measure.

Private bills had little chance when Mr. Balfour a little earlier than in other years bespoke for Government business the time allotted to them by the rules of Parliament. A service-franchise bill was intended to restore the right of suffrage to a considerable class of people who, after being allowed to register and vote for ten years from the passing of the representation of the people act in 1884, were excluded by a judicial decision given in the case of a policeman. He was declared to be not entitled to vote under the service franchise because his dwelling house returned under the act was a cubicle, and the same ruling applies to attendants in hospitals and asylums, warders of workhouses, firemen, many shop assistants, stablemen, grooms, gardeners, and caretakers. A Scotch local veto bill proposed to give the inhabitants of any electoral district the power by a majority vote to shut up all or any part of the public houses in the district without appeal and without compensation. A bill received the approval of the Commons, but was not accepted by the Government, the purpose of which was to raise the earliest age at which children can be taken from school from eleven to twelve years. The Lord Chief Justice, Lord Russell, of Killowen, raised a subject that awakened wide interest by bringing forward in the upper house a bill for the pre-

vention of corruption, prohibiting the taking of secret commissions in trade or the professions, as by buying or selling agents who place orders, mechanics who recommend goods to their employers, clergymen who induce parents to send their children to certain schools, physicians who send their patients to particular apothecaries. A bill to raise the flash point of petroleum was rejected by a majority of 244 to 159, because the effect would be, and the probable object was, to shut out American kerosene from the British market for the benefit of the Russian monopoly and the Scotch refiners. In 1871 Parliament prohibited the storing in populous places of oil giving off an inflammable vapor at 100° F. In 1879 the law was changed and a new and more certain test was applied. Instead of testing by bringing a flame close to the surface of oil in an open vessel raised to the temperature of 100°, the new law prescribed the testing of oil in a closed vessel, and decreed that any oil flashing under 73° should be subject to storage regulations. This was intended to be equivalent to the open test; but the bill that was offered in Parliament, after the subject had been considered by committees in previous sessions, raised the close test to 100°, and prohibited the use of oil having a lower flash point in lamps, whereas in previous legislation Parliament had merely prescribed regulations for the storage of oil in bulk.

A bill to compel shopkeepers to provide seats behind the counter for their female assistants was introduced in the House of Commons by Sir John Lubbock and in the House of Lords by the Duke of Westminster, supported by the Bishop of Winchester, the subject having been under public discussion for several years. The bill was not approved by the Government, but it passed through the lower house with very little discussion. In the upper house the Prime Minister argued against the measure that it would be likely to injure rather than benefit the class that it was intended to help, that shopkeepers who might be induced by public opinion to provide the seats would consider it a vexatious infringement on their liberty, especially because it subjected their places of business to the visits of inspectors, and would be likely to dismiss their saleswomen and employ men. He consented, however, to its being sent to a committee, and on the recommendation of this committee it passed the House of Lords in the teeth of Lord Salisbury's protests by a vote of 73 to 28. The University of London act of 1898 was supplemented by some amendments.

A bill for taking under the direct administration of the Crown the vast territories embraced in the protectorate previously acquired and administered by the Royal Niger Company was opposed by Sir Henry Campbell-Bannerman, and the financial provisions for reimbursing or rewarding the chartered company were much criticised. The naval works bill and the military works bill were warmly discussed from both the political and the financial point of view. A colonial loans bill enables colonies that are under the administrative control of the Colonial Office—to wit, the Gold Coast, Lagos, the Niger Coast Protectorate, Sierra Leone, Jamaica, Trinidad, Barbadoes, St. Vincent, Mauritius, the Seychelles, the Malay states, and Cyprus—to raise with an imperial guarantee certain specified loans for particular purposes. The situation in South Africa was the subject of many attempts to extract information from Mr. Chamberlain, but as it grew graver the leaders of the Liberal party evinced practical accord with the demands of Sir Alfred Milner and

the stand taken by the Government. Only Mr. Courtney, some of the advanced Radicals, and the Irish Nationalists dissented vigorously from Mr. Chamberlain's policy, though Sir Henry Campbell-Bannerman expressed the view that there was no sufficient ground for war.

The departure of the Government from the policy of the open door in China to the extent of adopting a sphere of influence coextensive with the Yangtse basin was the subject of strictures from Lord Charles Beresford as well as from the Radical politicians, who, under the lead of John Morley, condemned also British policy in the Soudan and denounced as barbarous the desecration and destruction of the Mahdi's tomb, which Lord Kitchener had ordered as a political and military measure.

There were 98 bills that passed both houses. Parliament was prorogued on Aug. 9. In the Queen's speech the results of the peace conference summoned by the Emperor of Russia were described as falling short of its lofty aims, yet calculated to diminish the frequency of war by the institution of a permanent tribunal of arbitration and to mitigate its horrors by the extension of the Geneva convention. The Anglo-French African agreement was alluded to as having become necessary in respect to the Nile valley after the success of the Anglo-Egyptian army. The railroad agreement with Russia in respect to China was also mentioned. In regard to the South African question, it was declared that the position of British subjects in the South African Republic was inconsistent with the promises of equal treatment on which the grant of internal independence to that republic was founded, and that the unrest caused thereby was a constant source of danger to the peace and prosperity of British dominions in South Africa.

Colonies and Dependencies.—The area of the British Empire was estimated in 1898 at 11,712,170 square miles, with an aggregate population of 385,280,140. This includes India and the feudatory states, having an area of 1,800,258 square miles and 287,223,431 population, and also protectorates and spheres of influence in Africa and Asia with an estimated area of 2,240,000 square miles and 36,210,000 population. The area and estimated population of British colonies are given in the table on the next page.

The colonial empire of Great Britain comprises 40 distinct governments, of which 11 have elective assemblies and responsible government; 16 have a legislative council nominated by the Crown, with the power reserved to the Crown, save in the case of British Honduras, of legislating by orders in Council; 9 have legislative councils partly elected and partly appointed; and 4 are pure Crown colonies, in which the legislative power is delegated to the officer administering the government when measures are not dictated from the Colonial Office in London. The governor of a British colony or the governor in chief or governor general whose jurisdiction embraces several colonies is appointed during the pleasure of the Crown, but by custom the term of office is usually six years. Where there is no representative assembly the initiation of laws belongs in general to him, and in all cases he has the power to veto legislation, which is exercised when the rights of the Crown or imperial interests are affected injuriously. During the century the colonial empire has been increased sixfold in area and the united population is three and a third times greater. The trade of the mother country, which was insignificant in 1800, amounts to about £94,000,000 of imports and £87,000,000 of ex-

COLONIES.	Square miles.	Population.
Gibraltar.....	2	26,208
Malta and Gozo.....	117	177,745
Aden and Perim.....	80	41,910
Ceylon.....	25,388	3,391,443
Hong-Kong.....	80	248,710
Labuan.....	80	5,853
Straits Settlements.....	1,472	512,342
Ascension.....	85	430
Cape Colony.....	276,800	1,766,100
Basutoland.....	10,283	250,000
Natal and Zululand.....	34,700	828,500
Mauritius.....	705	877,856
Gambia.....	2,700	50,000
Gold Coast.....	40,000	1,473,882
Lagos.....	1,500	100,000
Sierra Leone.....	30,000	250,000
St. Helena.....	47	4,116
Canada.....	8,653,946	5,185,990
Newfoundland and Labrador.....	162,300	208,000
British Guiana.....	109,000	285,315
British Honduras.....	7,562	84,277
Falkland Islands and South Georgia.....	7,500	2,050
Bahamas.....	4,466	52,316
Jamaica.....	4,424	721,072
Barbadoes.....	166	190,000
Leeward Islands.....	701	127,800
Windward Islands.....	784	155,000
Trinidad and Tobago.....	1,868	268,957
New South Wales.....	310,700	1,335,800
Victoria.....	87,884	1,169,484
Queensland.....	668,497	493,704
South Australia.....	903,660	358,224
Western Australia.....	975,920	161,924
Tasmania.....	26,385	171,719
Fiji.....	8,045	121,796
New Zealand.....	104,471	743,214
Total.....	7,550,538	21,657,782

ports. Excluding India, the revenue of the colonies has risen from £3,600,000 in 1850 to £54,000,000, and their indebtedness from £5,500,000 to £334,000,000, mostly held by English bondholders, and representing 36,000 miles of railroads, improved harbors, bridges, water supply and irrigation works, the reclamation of waste lands, coast-defense works, Government buildings, and other means of increased wealth and commerce.

The fortress of Gibraltar and the island of Malta are the naval bases of Great Britain in the Mediterranean. The strength of Gibraltar is being increased by extending the mole and building an additional one and a deep harbor. The people living in the port are descendants of early Genoese settlers. The tonnage entered in 1897 was 4,371,126 tons, of which 3,331,477 tons were British. The British garrison in 1898 was 5,505 officers and men. The revenue for 1897 was 1,652,781 pesetas; expenditure, 1,531,784 pesetas. The military expenditure of the British Government was £275,016. The Governor is Gen. Sir Robert Biddulph.

Malta lies 58 miles from the coast of Sicily, and is peopled by a mixed race, part Greek, speaking Italian. The Governor is Lieut.-Gen. Sir Francis Wallace Grenfell. The island produces cotton, potatoes, oranges, and figs. The imports for domestic consumption in 1897 were £824,439 in value, but the total imports were £10,895,639 in value; exports, £10,088,760. The number of vessels entered was 4,111, of 3,637,426 tons; cleared, 4,079, of 3,007,042 tons. There are 8 miles of railroad, 65 miles of telegraph, and 350 miles of telephones. The number of internal letters and postal cards that passed through the post office in 1897 was 1,641,255; newspapers, 669,107; of foreign letters, 1,975,870; postal cards, 118,576; newspapers, 1,022,437. The revenue in 1897 was £323,787; expenditure, £324,673. Malta has an excellent harbor, which is the base for repair, provisioning, and refitting the British fleet in the Mediterranean, and is one of the most

frequented ports of call in the world. The use of English as the language of instruction in the schools, alternatively with Italian, was enacted about 1880. Since 1898 the British Government has endeavored to obtain the consent of the elected members of the Council of Government to a law prescribing the optional use of English or Italian in judicial proceedings, and making English the sole language of the courts after a period of fifteen years. The elected members protested against this measure as degrading the whole population and reducing the people to slavery, and they feared that it would result in flooding the island with British immigrants and supplanting the present professional classes with Englishmen. After they had repeatedly refused to pass the obnoxious ordinances, Mr. Chamberlain on March 15, 1899, enacted them by an order in Council.

Cyprus, a Turkish island in the Mediterranean transferred to British administration by a convention with the Porte concluded on June 4, 1878, has an area of 3,584 square miles and a population of 209,286. The British High Commissioner is Sir William F. Haynes Smith. The principal products are wheat, barley, cotton, carobs, linseed, olives, silk, raisins, fruits, vegetables, silk, cheese, wool, hides, and wine. The imports of merchandise in 1897 were £263,346 in value; exports, £264,802. The tonnage entered and cleared was 702,510. There are 240 miles of telegraphs. The revenue in 1898 was £190,525; expenditure, £132,130. The tribute paid to the Sublime Porte is £92,800 per annum. The British Government contributed £33,000 in aid of revenue in 1898. In 1899 Parliament in the colonial loans bill guaranteed a debt of £314,000 to be raised for the purpose of making a harbor at Famagusta, connecting it by 37 miles of railroad with Nicosia, the capital town, and building an irrigation reservoir not only sufficient to mitigate the effects of periodical droughts in the central grain-growing district, the Mesaoria, but to permit the introduction of many new products for which the quality of the soil is suitable.

Aden, a rocky peninsula on the Arabian coast, is a fortified harbor, coaling station, and naval base at the entrance of the Red Sea. The colony includes the island of Perim, and the protected island of Sokotra and the Kuria Muria Isles are dependencies. Aden has a large transit trade in Arabian and African products, such as coffee, gum, hides, skins, and tobacco. The imports in 1898 were 36,347,980 rupees by sea and 3,310,478 by land, besides 4,408,407 rupees of treasure; exports, 31,329,750 rupees by sea, 1,272,430 rupees by land, and 4,878,196 rupees of treasure. There were 1,079 vessels, of 2,123,339 tons, entered, besides 1,407 local craft, of 48,138 tons. Aden is administered under the direction of the Governor of Bombay. The Bahrein Islands, off the coast of Arabia, in the Persian Gulf, are ruled by a sheik under British protection. They have a population of 22,000, and export pearls worth £244,000 a year.

Labuan is an island off the coast of Borneo, formerly a Crown colony, which in 1889 was placed under the administration of the North Borneo Company. British North Borneo, a protectorate placed under the jurisdiction of the same company by a royal charter, occupies territories ceded by the Sultan of Brunei and the Sultan of Sarawak. The area is 31,106 square miles and the population 175,000, including the Mohammedan settlers on the coast, the Chinese traders and workmen, and the aboriginal tribes of the forests and mountains. About 1,000,000 acres have been sold to 13 private individuals

VALETTA, MALTA.

and companies for the growing of tobacco of the Sumatra variety, and to 30 others for coffee, cocoanuts, ramie, and gutta-percha. The total value of imports in 1897 was \$1,887,498; of exports, \$2,942,293. The revenue is derived from opium, spirits, an export duty on birds' nests, law-court fees, stamps, trading licenses, import duties, and sales of land. Besides the cultivated products, pearls, trepang, and other sea products are exported, and forest and jungle products, such as timber, sago, guma, pepper, gambier, and rattan. Timber is exported to China. The exports of leaf tobacco were \$1,686,173 in 1897. The tonnage entered was 95,300; cleared, 94,168 tons, mostly British. There is a military force of 350 men, composed of natives with British officers. The revenue for 1897 was \$436,062, besides \$904 from land sales; expenditure, \$341,124.

Brunei, a protected country bordering on British Borneo, produces tobacco, etc., as far as cultivation has been introduced. The area is about 15,000 square miles, with 45,000 inhabitants. Sarawak, the other neighboring sultanate, has an area of 50,000 square miles, with 500,000 inhabitants, part Malays, part Dyaks, Kayans, and Muruts, with Chinese immigrants as the tradesmen and merchants. Coal is mined, and was exported in 1896 to the amount of \$114,347. Gold, silver, antimony, quicksilver, and diamonds are found. Tobacco, sago, gambier, pepper, dried fish, rattan, gutta-percha, India rubber, camphor, beeswax, tea, coffee, and cutch are exported. The Tambunans, who are the most numerous and warlike tribe in the interior of North Borneo, as the result of the influence of Mat Salleh, the notorious rebel who submitted to the Government in 1898, petitioned the British North Borneo Company to annex their country, and accordingly a resident European officer was appointed in

1899 to take charge of the district, which has an area of 500 square miles and 25,000 inhabitants.

Ceylon formerly produced excellent coffee, but now is one of the greatest tea-growing countries in the world. The planters are Englishmen, who use the latest mechanical appliances in curing and preparing tea for the European and American markets. The laborers on the plantations are Tamils, imported on time contracts from southern India. The total population in 1897 comprised 6,545 Europeans, 23,663 burghers or descendants from European settlers, 2,174,200 Singhalese, 10,980 Malays, 800 Veddahs, 205,588 Moors or Mohammedans of aboriginal races, 960,745 Tamils, and 8,862 others. The birth rate is 36.9, the death rate 23.2 per thousand. The number of agricultural laborers arriving in 1897 was 153,075; departures, 109,213. The public revenue for 1897 was 24,006,522 rupees; expenditure, 21,634,378 rupees. The revenue from customs was 5,973,785 rupees; from land sales, 498,970 rupees; from spirits, 2,812,324 rupees; from stamps, 2,075,876 rupees; from Government timber and salt, 1,553,110 rupees; from harbor dues, 971,429 rupees; from Government railroads, 7,318,683 rupees. The expenditure on civil establishment, etc., was 5,696,234 rupees; military contribution, including the cost of the volunteer force, 1,824,002 rupees, of which 1,702,165 rupees were paid over to the Imperial Government; pensions and retiring allowances, 1,013,966 rupees; interest on debt, 2,460,295 rupees; public works, 2,872,921 rupees. The public debt amounted to £3,494,905, not including a rupee debt of 3,278,672 rupees, all of it incurred for public works. The strength of the British garrison in 1898 was 1,663; of the volunteer force, 1,074. The port of Colombo, which has 127,836 inhabitants, is protected by modern forts erected at the expense of the colony. Of

a total area of 16,233,000 acres in the island, only 2,159,698 acres are tilled and 763,850 acres pasture. Rice and cereals were grown on 728,112 acres in 1897, coffee on 19,477 acres, tea on 404,574 acres, cinchona on 891 acres, cocoanuts on 878,909 acres, cinnamon on 42,289 acres, tobacco on 10,122 acres, and cacao on 32,354 acres. There were 4,007 horses and 1,289,536 cattle. The most important mineral product is plumbago, 584 mines of which were in operation in 1894. The total value of imports in 1897 was 98,027,474 rupees; of exports, 85,099,803 rupees. The exports of tea were valued at 46,931,190 rupees; cocoanuts and coir, 13,142,622 rupees; plumbago, 3,670,840 rupees; coffee, 1,472,346 rupees; areca nuts, 1,316,595 rupees; cinchona, 32,512 rupees. The export of cacao was 35,121 hundredweight. Disease among the coffee plants has reduced the export of coffee from 824,500 hundredweight in 1879 to 18,605 hundredweight in 1897; meanwhile that of tea has grown from 2,392,975 pounds in 1884 to 98,581,060 pounds in 1895, 110,095,193 pounds in 1896, and 114,466,318 pounds in 1897. The tonnage entered and cleared during 1897 was 6,704,747 tons. The merchant shipping of the colony in 1898 comprised 187 sailing vessels, of 13,458 tons, and 4 steamers, of 629 tons. There were

tion. Land ordinances recently enacted denying the communal rights of the natives in wild lands by presuming that all waste land is the property of the Crown until the contrary is proved have been criticised as an enactment for taking the lands away from the natives in order that they may be disposed of to planters. The Government replies that the intention of the ordinances is to check and regulate the sales of forest and other lands, which speculators are in the habit of getting the natives to deed to them for a trifling consideration, and also to provide an easy way of settling disputes as to whether lands belonged to the Government or to native villages. The Ceylon teas, which have long been popular in Great Britain, now find a demand in the United States and Australasia and in Russia and Germany. The disturbance of exchange caused by the interference of the Indian Government with the currency checked the too rapid growth of the tea-planting industry and of other enterprises that were stimulated by the falling rupee, and has even led to the contraction of cultivation by the abandonment of poor fields, so that in Ceylon, as well as in India, there is no immediate prospect of an increase of crops. A graving dock to accommodate first-class battle ships was begun



CINNAMON PACKING IN CEYLON.

297 miles of Government railroads in operation in 1897, and 215 miles more were authorized. The telegraphs had 1,733 miles of wire. The Maldivé Islands, west of Ceylon, are ruled by the native *fandari*, or chief judge and priest, under British protection. The inhabitants, all Mohammedans, number 30,000, noted as sailors and traders. Expenditure has been authorized in Ceylon to open up new districts by building railroads and to carry out large schemes of irriga-

at Colombo in 1899, and will take five years to complete.

The Straits Settlements form a Crown colony embracing Singapore, Penang, with Province Wellesley and the Dingdings, and Malacca. The total population is 512,342, of whom 6,589 are Europeans and Americans, 213,073 Malays, 227,989 Chinese, and 53,927 natives of India. The revenue in 1897 was \$4,320,207; expenditure, \$4,429,693. The imports were \$219,910,296 in

value; exports, \$193,136,377. The chief exports are tin for \$27,524,804, spices for \$9,206,289, gums for \$8,139,283, gambier for \$6,711,822, tapioca and sago for \$4,816,486, rattan for \$4,337,770, and copra for \$3,616,721. Sir C. B. H. Mitchell, the Governor, is also High Commissioner for the federated Malay states of Perak, Selangor, Negri Sembilan, and Pahang, while Sir F. A. Swettenham is Resident General. Perak has an area of 10,000 square miles, a population of 214,254, a revenue in 1897 of \$3,837,558, with \$4,178,238 of expenditures; Selangor has an area of 3,500 square miles, a population of 81,592, a revenue of \$3,688,390, with \$3,567,845 of expenditures; Negri Sembilan, with Sungei Ujong, has an area of 3,000 square miles, a population of 65,219, a revenue of \$572,546, with \$607,313 of expenditures, and a debt of \$503,119; Pahang has an area of 10,000 square miles, a population of 57,462, a revenue of \$198,193, with \$266,491 of expenditures, and a debt of \$2,103,739. The Straits Settlements produce gambier, pepper, tapioca, rice, and sugar. These articles are also produced in the protected states, as well as Liberian coffee, and gold is found in several of them, 26,420 ounces having been exported from Pahang alone in 1897; but their chief source of prosperity and of revenue to the native governments and that of the Straits Settlements is the tin mines. The export of tin from Perak in 1897 was 20,702 tons; from Sungei Ujong and Jelebu, 3,522 tons; from Selangor, 20,606 tons. Perak and Selangor have in fifteen years built out of their surplus revenues 175 miles of railroad, at a cost of £850,000. The British Parliament in 1899 authorized a loan of £500,000, and the protected states will provide from their revenues £500,000 more to complete the railroad system by the construction of 200 miles more. The lines already built earn an average profit of 8 per cent. on the capital expenditure. Perak and Selangor have to a great extent been reorganized by English administrators, with a sound system of finance, justice, and administration. In Negri Sembilan the abuses of native misrule still exist, and in Pahang to a still greater extent. Since 1880 the revenue of the federated states has grown from \$882,000 to \$7,000,000.

Hong-Kong, the chief naval and military station of Great Britain in the China seas and a free port, having the largest commerce of any place in the East, is a Crown colony. The present Governor is Sir Henry A. Blake. Besides the island of Hong-Kong, which was ceded to Great Britain in 1841, the opposite peninsula of Kaulung became British territory by a treaty made with China in 1861. On June 9, 1898, an area of nearly 400 square miles was leased to Great Britain for ninety-nine years, running back to Mirs Bay and Deep Bay, including those waters and the island of Lantau. The leased district includes the city of Kaulung, where the Chinese authorities continue to exercise jurisdiction in native matters, and contains numerous villages, having a population of about 100,000. Of the population of Hong-Kong in 1898 the estimated number of British and foreigners was 13,700, nearly half of them Portuguese, about one third British, and the rest Germans, Americans, French, Spanish, Italians, Turks, etc. The number of births in 1897 was 1,368; of deaths, 4,688. The Chinese immigration in 1897 was 115,207; emigration to China, 62,831. The British garrison numbers 2,800 officers and men. The colony contributed £476,869 toward imperial defense in 1897, including the cost of the volunteer artillery, numbering 176 men. The British naval

squadron on the China station consists of 34 men-of-war. The police force of Hong-Kong numbers 661 men, of whom 122 are British, 210 Sikhs, and 329 Chinese. The ordinary revenue for 1897 was \$3,352,366; ordinary expenditure, \$2,513,693. The revenue is derived from lands, taxes, licenses, and the opium monopoly. Hong-Kong is the port where the opium from India is received and shipped to the various ports of China, and is the distributing point for a great part of the European trade with the Chinese Empire. The tea trade and the silk trade are largely controlled by Hong-Kong merchants. Among the commercial staples of which it is the center are raw cotton, cotton manufactures, flour, salt, china-ware, oil, sandalwood, betel, live animals, ivory, and vegetables. The imports are estimated at £4,000,000 sterling, and exports at half that amount. The shipping registered in the colony in 1898 consisted of 25 sailing vessels, of 6,441 tons, and 38 steamers, of 20,705 tons. There were 4,974 vessels, of 6,063,640 tons, entered during 1897, not including 28,989 junks, of 1,718,739 tons.

Wei-Hai-Wei, a naval harbor on the peninsula of Shantung, was on July 1, 1898, leased to Great Britain for so long a period as Russia shall remain in possession of Port Arthur. The lease includes the port and bay, with the island of Liu-Kung and all the islands in the bay, and a coast strip 10 miles wide around the bay. In a neutral zone beyond Great Britain has the right to station a military force and erect fortifications, but the jurisdiction remains Chinese. Parliament has voted £130,000 for fortifications, and has authorized the recruiting of a Chinese regiment at Wei-Hai-Wei.

Ascension, an island off the coast of Africa, 700 miles northwest of St. Helena, is a coaling station and store depot for the British West African squadron and a sanitarium for officers and seamen debilitated by coast fever.

St. Helena, 1,200 miles from the west coast of Africa, is a coaling station for vessels of the British navy and merchantmen going to the Cape of Good Hope. The tonnage entered and cleared in 1897 was 81,948 tons, almost all British. The revenue in 1898 was £9,152; expenditure, £12,349, partly extraordinary. Imports amounted to £62,985, nearly double as much as in the previous year, owing to an increase in the garrison; exports, £4,391.

Tristan da Cunha, midway between the Cape of Good Hope and South America, is the home of shipwrecked British sailors and their families, numbering 64 persons in 1897.

The Falkland Islands, 300 miles east of the Straits of Magellan, are peopled by British immigrants, who raise sheep and export wool and mutton to England. The number of horses in 1897 was 2,758; of cattle, 7,343; of sheep, 732,010. There are 2,325,000 acres of pasture land. The imports in 1897 were £63,286; exports, £125,123; revenue, £12,970; expenditure, £13,636. The number of vessels that called during the year was 42, of 54,144 tons.

The Bermudas, a group of small islands in the North Atlantic, 580 miles from the coast of North Carolina, possess representative government. The Governor is Lieut.-Gen. G. Digby Barker. The number of marriages in 1897 was 124; of births, 572; of deaths, 385. The revenue for 1897 was £35,965; expenditure, £35,704. The British Government contributed £2,200. The public debt is £46,100. The value of imports was £323,148. The islands are a winter resort for Americans, and import most of the food supply from the

United States and Canada. The principal exports were onions for £81,463, lily bulbs for £8,080, and potatoes for £18,052, nearly all to the port of New York. The shipping of the colony consisted in 1898 of 23 sailing vessels, of 5,469 tons burden, and 2 steamers, of 6,120 tons. The tonnage entered and cleared in 1897 was 346,538 tons. There are 36 miles of telegraph, 15 of cable, and 700 of telephone wires. Bermuda is connected with Halifax, Nova Scotia, by cable, and is a coaling and victualing station and naval base for British vessels in North America.

Mauritius, 500 miles east of Madagascar, is peopled by creole French planters, descendants of liberated African slaves, mixed races, Indian coolies, etc. There were 260,542 Indians and 3,389 Chinamen at the end of 1897. The birth rate is 35.5, the death rate 29.5 per thousand. The Governor of the colony is Sir Charles Bruce. The revenue for 1897 was 7,996,705 rupees; expenditure, 8,626,798 rupees. The debt amounted to £1,230,489. The chief items of revenue were 2,769,889 rupees from customs, 2,377,961 rupees from licenses, and 1,712,322 rupees from railroads. The total value of the imports in 1897 was 18,948,233 rupees; exports, 28,192,675 rupees. The export of raw sugar was 22,327,650 rupees in value; rum, 67,370 rupees; vanilla, 136,620 rupees; aloe fiber, 242,507 rupees; cocoanut oil, 33,760 rupees. The acreage of sugar declined after a rapid increase in 1893 and 1894, but in 1897 began to recover. The British Government is assisting Mauritius with a new loan of £32,820 for reforestation, drainage, and water-works needed for the health of the community. The shipping of the colony in 1897 comprised 64 sailing vessels, of 7,159 tons, and 4 steamers, of 131 tons burden. There were 332 vessels, of 328,702 tons, entered and 342, of 338,683 tons, cleared at Port Louis during 1897. The British garrison in 1898 numbered 1,078 officers and men. The colony has 105 miles of railroad and a system of telegraph connecting all points on the island, with a cable to Seychelles and Zanzibar.

The Seychelles are a group of small islands, having a population of 16,440 inhabitants, who exported cocoanut oil, soap, vanilla, tortoise shell, coffee, and cacao of the value of 127,687 rupees in 1897. (See AUSTRALASIA, CANADA, CAPE COLONY AND SOUTH AFRICA, EAST AFRICA, INDIA, NEWFOUNDLAND, WEST AFRICA, WEST INDIES.)

GREECE, a monarchy in southeastern Europe. The legislative authority is vested in a single chamber, called the Boule, consisting of 207 members elected for four years by universal manhood suffrage. The reigning King is Georgios I, born Dec. 24, 1845, the second son of King Christian of Denmark, elected King of the Hellenes on March 18, 1863, after the deposition of King Otto, with the assent of the protecting powers, France, Great Britain, and Russia, under whose auspices the Hellenic Kingdom was first established in 1830 after the overthrow of Turkish rule. The heir apparent is Prince Konstantinos, Duke of Sparta, born Aug. 2, 1868.

The Cabinet formed on Nov. 10, 1898, was composed as follows: President of the Council and Minister of Foreign Affairs, M. Zaimis; Minister of the Interior and of Worship and Instruction, M. Triantaphylakos; Minister of Marine, Capt. Miaoulis; Minister of War, Col. Karpas; Minister of Finance, M. Negris; Minister of Justice, M. Monferatos.

Area and Population.—Greece has an area of 25,014 square miles, with a population of 2,433,906 at the census of 1896, consisting of

1,266,816 males and 1,166,990 females. Education is compulsory, but the law is not enforced. About 70 per cent. of the recruits for the army can read and 85 per cent. can read and write.

Finances.—As the price of the intermediation of the great powers to secure better terms for Greece after the defeat of the Greek army by the Turks in 1897, the Hellenic Government was compelled to an international control of the finances, which had for several years been urged in the interests of the foreign creditors of Greece, but had been obstinately resisted by the Government and people. A commission of financial delegates, representing Germany, Austria-Hungary, France, Great Britain, Italy, and Russia, was constituted in accordance with the law of control enacted in March, 1898, and in the month following they made their report. The average annual receipts of the Government for five years anterior to the war had been 91,651,000 drachmai in currency, and the average expenses of the administration 81,951,000 drachmai. The revenue was expected to fall in consequence of the war to 85,556,500 drachmai in 1898, increasing to 89,639,640 drachmai in 1899, 92,598,780 drachmai in 1900, 95,557 drachmai in 1901, 98,103,504 drachmai in 1902, and 99,750,056 drachmai in 1903. The administrative expenses, on the other hand, were placed at a higher figure than the recent budgets, notwithstanding the curtailment of military expenditure and economies in all branches of the administration, because for the rehabilitation of the finances on a permanent basis it was necessary to reorganize the police in order to put an end to the lawlessness that interferes with industry, while the existing laws of primary education required a larger expenditure on the schools than the Government had been allowing. The administrative expenses for 1898 were estimated at 65,501,326 drachmai, for 1899 at 64,051,326 drachmai, for 1900 at 63,851,326 drachmai, for 1901 at 64,151,326 drachmai, for 1902 at 64,451,326 drachmai, and for 1903 at 64,751,326 drachmai. The foreign debts of Greece, due in gold, consisted of the loan of 1833, guaranteed by England, France, and Russia, of the nominal amount of 100,932,833 drachmai, on which the annual charge was 900,000 drachmai, and the consolidated debt of 551,716,500 drachmai, in addition to which a floating debt of 31,375,093 drachmai had accumulated, making the total liabilities to foreign creditors, aside from the old guaranteed debt, 583,091,593. The currency debts amounted to 177,213,795 drachmai, consisting of a debt of 1,800,000 drachmai due to the heirs of King Otto, the patriotic loan of 2,345,000 drachmai, 60,723,795 drachmai of consolidated loans, and 112,345,000 drachmai of floating liabilities. In addition to these debts, the Bank of Greece had 137,500,000 drachmai of paper currency in circulation, not more than 1 per cent. of it covered by a metallic reserve. The powers agreed to guarantee a new loan of £8,800,000 sterling at 2½ per cent., the first issue of £5,004,900 to be applied to the payment of the Turkish war indemnity of £ T. 4,000,000 and of £ T. 100,000 damages to private individuals, the balance being applied to the relief of the financial stress of the Government. The commissioners planned to convert 78,881,295 drachmai of internal debt into a new loan of 76,353,575 drachmai. The revenues from monopolies, stamps, tobacco, and customs were assigned to the commission for the service of the external debt. The annual charge for the old debt, including the consolidated loans and the guaranteed debt of 1833, is 15,658,750 drachmai, reckoning the gold drachma equal to 1.60

drachma in currency, increasing to 16,065,000 drachmai in 1903, when the rate of interest will be increased. In addition to the interest, the old creditors insisted on special payments on arrears, for which the sum of 6,580,000 drachmai was to be provided in 1898, then 1,780,000 drachmai for each of the next three years, and 500,000 drachmai in 1902, when these special payments cease. The annual charge of the internal debt was calculated at 5,545,610 drachmai for 1898 and 5,145,610 drachmai for succeeding years, which will be increased in 1900 and after to 7,145,610 drachmai by the appropriation each year of 2,000,000 drachmai to the gradual withdrawal of the forced paper currency. These estimates make the total expenditure 93,285,686 drachmai for 1898, which is 7,729,186 drachmai more than the total estimated receipts. The application of 4,425,000 drachmai from the new loan, reduced, however, by 3,000,000 drachmai for a half year's interest and 200,000 drachmai for commissions, leaves a deficit of 6,504,186 drachmai for 1898. For 1899 the total ordinary expenditure, as estimated, amounts to 86,635,686 drachmai, leaving a surplus of 3,003,954 drachmai, to which is added 8,000,000 drachmai from the new loan, but after paying the interest of 6,050,000 drachmai on the new loan, with 250,000 drachmai for commissions and 250,000 drachmai for temporary debt charges, there still remains a deficit of 2,050,232 drachmai at the end of the second year. For 1900 the estimated expenditures foot up 88,435,686 drachmai, showing a surplus of 4,163,094 drachmai in the year's ordinary budget; but there are no more funds to be applied from the loan to the aid of the treasury, while the sinking fund of 1.1 per cent. being added to the interest increases the annual charge of the new loan to 6,200,000 drachmai, the additional expense of 500,000 drachmai for commissions and temporary loan charges remaining the same. The estimated deficit at the end of the third year is therefore 4,587,138 drachmai, and at the end of 1901, with expenditures for the administration and the service of the old debts footing up 88,735,686 drachmai, leaving a balance of 6,821,834 drachmai, it is 4,465,304 drachmai; but this is reduced in 1902, with expenses figured at 87,755,686 drachmai, to 817,486 drachmai, and in 1903, with expenditures figured at 87,961,936 drachmai, an equilibrium is expected to be reached and a surplus of 1,542,634 drachmai is counted on, notwithstanding the increase in the charges of the new loan to 8,928,000 drachmai. The revenue from monopolies was reckoned at 10,250,000 drachmai for 1898, rising to 12,975,700 drachmai in 1903, less an expenditure in each year of about 3,000,000 drachmai for the purchase of matches, playing cards, cigarette papers, and also of stamps; the revenue from stamps was estimated at 9,000,000 drachmai, rising to 10,000,000 drachmai; revenue from customs, 10,700,000 drachmai for each year; revenue from tobacco, 5,470,000 drachmai in 1898, rising to 7,025,000 drachmai. The total net yield of the assigned revenues was estimated at 32,420,000 drachmai in 1898, 33,476,140 drachmai in 1899, 34,532,280 drachmai in 1900, 35,588,420 drachmai in 1901, 36,231,004 drachmai in 1902, and 37,183,756 drachmai in 1903, after deducting the share of the old creditors in the plus values, which are the surplus of the gross proceeds of the monopolies and tobacco and stamp duties over 28,900,000 drachmai. Such a surplus is expected to arise in 1902, and from it 18 per cent. is to be deducted for expenses, and of the remainder 60 per cent. is to be applied to the service of the old debt and 40 per cent. to the expenses of the Government. The share of the

creditors for 1902 is estimated at 413,556 drachmai, and for 1903 at 516,944 drachmai.

The Army and Navy.—The army, which is recruited by general conscription, had in 1896 a nominal strength of 1,880 officers and 23,453 men, with 3,294 horses and 180 guns. The term of active service is two years, but leave of absence is frequently granted after a short training. The war strength is about 82,000 men, excluding the territorial army, estimated at 90,000 men.

The armor-clad navy consists of 5 vessels—the antiquated *Basileus Georgios*, of 1,770 tons, and *Basilissa Olga*, of 2,060 tons, carrying 6.6-inch guns, and the steel vessels *Hydra*, *Spetsai*, and *Psara*, of 4,885 tons, built in France in 1889 and 1890, each protected by a belt of 11.8-inch armor at the water line and armed with 3 10.6-inch and 4 5.9-inch Canet guns, besides 7 6-pounder and 16 smaller quick-firing and machine guns. The torpedo flotilla comprises 17 first-class craft and 2 submarine Nordenfriesland torpedo boats.

Navigation.—The number of vessels entered at Greek ports during 1897 was 4,560, of 2,491,522 tons; cleared, 4,487, of 2,444,618 tons. The merchant marine on Jan. 1, 1898, comprised 1,152 sailing vessels, of 238,196 tons, and 118 steamers, of 87,845 tons.

Commerce and Production.—The soil of Greece is owned mainly by the farmers, but their methods of agriculture are generally behind the age. The crop of wheat is about 7,000,000 bushels a year; barley, 3,000,000 bushels; corn, 3,000,000 bushels; and other grains, 7,000,000 bushels. About 16,000,000 pounds of tobacco are raised, much of which is exported to Egypt and Turkey. The wine product is 66,000,000 gallons, and of olives 15,000,000 pounds are gathered annually; of figs, 60,000,000 pounds. The quantity of dried figs produced in 1897 was 10,000 tons; of valonea, 9,000 tons; of cocoons, 150,000 kilogrammes, besides which 8,000 kilogrammes of silk were produced. The quantity of olive-oil soap manufactured in 1896 was 8,240 tons. The most important crop is the Zante currant, grown only in Greece. The quantity of dried currants produced in 1896 was estimated at 150,000 tons; in 1897, 146,000 tons. Under the law first passed in 1895, and re-enacted every year since, the Government retains 15 per cent. of the crop in order to prevent the export price from falling below the cost of production. In the district of Laurium are valuable mines, yielding 192,789 tons of manganese iron ore, 136,811 tons of hematite, 24,830 tons of zinc ore, and 9,660 tons of silver lead ore, besides 6,912 tons of dressed galena, 3,084 tons of dressed lead and zinc ore, and 16,074 tons of pig lead extracted from the poorer ores. The special imports in 1897 were valued at 114,275,516 drachmai in gold, and the special exports at 80,734,074 drachmai. The imports consisted of wheat and meslin for 30,140,636 drachmai, yarns for 20,371,281 drachmai, coal and raw materials for 12,110,954 drachmai, fish and caviar for 5,166,870 drachmai, hides for 3,667,172 drachmai, sugar for 3,179,461 drachmai, metals and ores for 2,785,720 drachmai, coffee for 2,754,512 drachmai, timber for 2,618,886 drachmai, colors for 2,117,843 drachmai, rice for 2,067,324 drachmai, live animals for 1,640,540 drachmai, and other articles for 21,621,199 drachmai. The exports were dried currants for 31,841,759 drachmai, ores for 19,429,248 drachmai, wine in casks for 5,701,108 drachmai, olive oil for 4,748,023 drachmai, figs for 2,064,647 drachmai, tobacco for 1,910,515 drachmai, sponges for 1,038,300 drachmai, brandy for 979,049 drachmai, olives for 888,258 drachmai, cocoons and silk for 834,648 drachmai, soap for 319,285 drachmai.

emery for 300,675 drachmai, and leather for 288,642 drachmai.

The values in gold drachmai of the special imports from and exports of Greek produce to the various countries in 1896 are given in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain.....	29,447,472	18,196,966
Russia.....	24,140,783	7,716,517
Turkey and Egypt.....	14,980,776	10,686,676
Austria-Hungary.....	11,842,079	6,941,553
France.....	8,533,420	6,504,648
Germany.....	10,208,728	5,384,304
Belgium.....	2,744,815	8,229,232
United States.....	4,501,670	2,680,488
Italy.....	2,905,776	3,968,828
Netherlands.....	939,152	3,230,200
All other countries.....	6,040,850	1,187,813
Total	116,275,516	72,477,206

Railroads, Posts, and Telegraphs.—The length of railroads in operation in 1898 was 591 miles, and 300 miles were in process of construction, including the extension of the railroad running from Athens to Larissa, which, when completed to Salonica, will afford railroad communication with the other countries of the Continent.

The post office in 1896 forwarded 4,337,000 domestic and 5,107,000 foreign letters and postal cards, and 5,666,000 domestic and 2,867,000 foreign newspapers and samples; receipts, 2,110,877 drachmai; expenses, 1,983,860 drachmai.

The telegraph lines had on Jan. 1, 1897, a total length of 5,087 miles, with 6,023 miles of wire. The number of telegrams dispatched the previous year was 981,989 in the internal service and 413,602 in the international service. The receipts were 2,514,623 drachmai.

Politics and Legislation.—In the elections that took place in February, 1899, the Zaimis Government sustained a defeat, obtaining not over 40 seats. The Delyannists obtained not so many, and there were lesser groups; but a large majority of the seats was won by the followers of the late M. Tricoupis, who had not yet settled on a new leader. Although most of them were inclined to accept M. Theotokis, M. Dragoumis had a considerable following. In the interval between the elections and the assembling of the Chamber on March 16 the ministerial party endeavored to win over enough independent, undecided, and antagonistic members to secure a majority in favor of the projected reforms in the administration. M. Zaimis and his colleagues, however patriotic their objects were, could not render these objects popular. They had taken office to carry out the ungrateful but necessary measures connected with the introduction of the foreign financial control, which was the condition exacted by the powers when they intervened in the war with Turkey. Now that the stress of that period was relaxing and the country enjoying comparative prosperity, the old party divisions began to assert themselves. The acceptance by the powers and Turkey of Prince Georgios as Governor General of Crete was a favorable circumstance for the ministry, but not favorable enough to change the current of internal politics. The chief feature of the ministerial programme was a radical scheme of civil-service reform. It was proposed to institute a supreme council of supervision, which should control the administrative offices, regulating the appointment, promotion, and removal of all public officials, even including the magistrates and judges. Specialists would be brought in from abroad for the purpose of reorganizing some branches of the public serv-

ice, especially the police. By creating a public body of control and supervision the Government hoped to do away entirely with the spoils system of public appointments and secure a permanent and efficient corps of administrative officials. Another important reform aimed at the decentralization of the administration. In furtherance of this object the Government proposed to create a ministry of agriculture, commerce, and industry. The speech from the throne promised social legislation for the benefit of the working classes. Other measures proposed to deal with the reorganization of the land and sea forces and the extension of the system of public education. The programme of legislation included a plan for the perpetuation of the Olympian games as revived in 1896. The completion of the railroad from the Piræus to Larissa was promised, also improved waterworks for Athens. The amelioration of the financial situation justified the expectation that the Government would be able to balance the budget in the future without recourse to fresh taxation. The Cabinet of M. Zaimis remained in office for some weeks after the opening of the Boule, although his own election was declared null by a committee containing a majority of Tricoupists. The Premier offered to resign on April 7 without waiting for a formal vote. By the vote of the Chamber his election was pronounced regular. The strength of the parties was shown in the election for president of the Boule on April 12, when M. Tsamados, the Tricoupist candidate, received 128 votes against 37 for the Delyannist and 28 for the Government candidate, 41 members not voting. M. Zaimis thereupon tendered the resignation of the ministry to the King, who sent for M. Theotokis.

On April 14 the new ministry was formed as follows: President of the Council and Minister of the Interior, M. Theotokis; Minister of Finance, M. Simopoulos; Minister of Foreign Affairs, M. Romanos; Minister of War, M. Koumondouros; Minister of Marine, M. Boudouris; Minister of Worship and Instruction, M. Eutaxias; Minister of Justice, M. Karapoulos. The Boule adjourned for a month to enable the new ministry to prepare its programme, and reassembled on May 24. In consequence of the satisfactory surplus anticipated by the Minister of Finance, the Government hoped to be able to carry out improvements in the administration of justice and in the system of public instruction and a reorganization of the police service, which will do away with a serious defect in the military service by relieving the army of the police duties which two fifths of the soldiers have been called upon to perform without achieving the best results in regard to the execution of the laws and the preservation of order. The provisional budget of the finance minister showed an income of 105,795,658 drachmai for 1900 and 99,347,624 drachmai of expenditure, leaving a surplus of 6,448,034 drachmai. The increase in revenue over 1898 was 18,069,053 drachmai, and the decrease in expenditure was 1,797,210 drachmai. The army estimates had been reduced 2,000,000 drachmai since 1896, the expenses of the Ministry of the Interior 1,500,000 drachmai; but the cost of the navy had grown, and a further increase was proposed in order to add to the present personnel and to give officers opportunities for instruction by sending them abroad and the fleet more practice in cruising. The burden of the debt had grown to 29,000,000 drachmai, but the cost of government had been reduced 3,359,000 drachmai since 1896, the last year in which normal conditions prevailed. The Government introduced a project of

reforms in the internal administration which encountered so much local opposition that modifications were promised. The citizens of the ancient city of Thebes were so exasperated at having their municipal rights transferred to the newly constituted administrative district of Levadia that the Government sent cavalry to prevent a disturbance. The remodeling of the provincial administrations rendered them more independent of the central Government. The Boule authorized the Government to employ foreign officers to reorganize the army and navy, although the older Greek officers protested. The gendarmery was reorganized and the military police abolished. A bill was passed prohibiting the exportation of antiquities and providing for their preservation. The Government arranged with Greek engineers to bring water to Athens from Lake Stymphalus in the Morea, but the measure met with opposition, and was postponed. The Boule separated on July 27.

GUATEMALA, a republic of Central America. The legislative power is vested in the Congress, consisting of a National Assembly of 69

and after a contest Manuel Estrada Cabrera was on Sept. 25, 1898, proclaimed President by the National Assembly for the term ending March 15, 1905. The members of the Cabinet in the beginning of 1899 were as follow: Secretary of Government, Justice, and Foreign Affairs, Dr. Francesco Anguiano; Secretary of War, Gen. Gregorio Contreras; Secretary of Fomento, Antonio Barrios; Secretary of Public Instruction, Domingo Morales; Secretary of Finance, Rafael Salazar.

Area and Population.—The area of Guatemala is estimated at 63,400 square miles. The population in 1897 was 1,535,632, of whom three fifths are of pure Indian race and the rest of mingled Indian, Spanish, and negro blood, excepting a few pure whites. There were 11,331 foreign residents in 1893. The number of marriages in 1896 was 5,504; the number of births in 1897, 71,353; of deaths, 43,892; excess of births, 27,461. Guatemala la Nueva, the capital, has 72,102 inhabitants, most of whom are of European origin or descent. Education is gratuitous and compulsory, and in 1895 there were 1,206 primary schools

RECUINTLA, GUATEMALA.

members, elected for four years by universal suffrage and a Council of State of 13 members, of whom part are elected by the Assembly and part are appointed by the President. The President of the republic is elected for a term of six years by the direct vote of the people, and is not re-eligible for the next succeeding term. José Maria Reyna Barrios, elected in 1892, was continued in the presidency by vote of the National Assembly for four years beyond his legal term of office, but was murdered shortly before his term expired;

supported by the Government, containing 39,411 male and 24,604 female pupils.

Finances. The revenue in 1896 was \$15,150,741, and expenditure \$17,437,452. In 1897 the revenue was \$12,479,741, and in 1898 it was estimated at \$11,565,000, of which \$3,926,000 came from customs, \$2,226,000 from exchange, supplementary duties, etc., and \$3,224,000 from spirits. The charges of the debt and appropriations for railroads, etc., amounted to \$4,036,000, leaving \$6,929,000 to defray all the expenses of the ad-

ministration. The external debt of 1895, bearing interest at 4 per cent., was estimated in 1898 to amount to £1,482,800, or \$18,443,600, reckoning the premium on gold at 150. The total liabilities of the Government were figured by the English council of foreign bondholders to amount to £3,215,000, or \$40,185,424 in currency, while the assets of the Government in railroads and other property were only \$17,383,513. About 10 per cent. of the Government's expenses are for the maintenance of the army, which numbered in 1896 about 7,000 men of all ranks. All Guatemalans are liable to military service in time of war, and the number of effective men below the age of thirty is about 56,900, with a reserve of 30,000 above that age.

Commerce and Production.—The soil of Guatemala is very rich in most parts of the country. The main crop is coffee, of which 824,756 quintals were exported in 1897. The export duty of \$1.50 in gold per quintal was reduced in 1898 to \$1 in currency. The yield of tobacco in 1897 was 9,900 quintals. Next to coffee, the chief crop for export is bananas. Cacao is also grown, and Indian corn is produced in abundance for domestic consumption. Cattle and horses are pastured in the elevated table-lands. Gold mining is a recent enterprise, and there are silver mines in operation. Salt is mined successfully, but the deposits of lead, tin, and copper ore have been neglected. The imports into Guatemala were valued in 1897 at \$8,584,821, or \$21,462,053 in currency; exports, \$19,775,800 in currency. The gold value of the imports of cotton goods was \$1,716,984; of wine, beer, and spirits, \$667,176; of cereals, \$659,832; of canned goods, \$350,444; of woollen goods, \$312,475; of iron manufactures, \$246,961;

of railroad and telegraph materials, \$227,267. The value in currency of the exports of coffee was \$18,875,700; of silver coin, \$473,000; of hides, \$205,965; of bananas, \$77,548. Of the exports of coffee 543,807 quintals were shipped to Germany, 137,055 quintals to the United States, and 123,277 quintals to England. The number of vessels entered at the ports of Guatemala in 1897 was 614, of 782,076 tons, mostly from the United States.

Railroads, Posts, and Telegraphs.—The railroads in operation at the end of 1898 had a length of 336 miles, and 100 miles were under construction. An American company completed 133 miles in that year, receiving a subsidy from the Government of \$480,000 a year for operating the line. The telegraph lines in 1897 had a total length of 3,093 miles. The number of messages sent during the year was 664,169. The receipts were \$293,563; expenses, \$418,304. The number of pieces of mail matter sent in 1897 was 4,038,966; the number received, 5,674,100.

Proposed Repudiation.—In consequence of its financial embarrassments the Guatemalan Government proposed to place the foreign debt on the same footing as the internal bonds, which were worth in the market only 25 per cent. of their nominal value. Various foreign governments protested, Germany most vigorously, and in July a threat was made to send a German naval force to compel the fulfillment of obligations. The Government of Guatemala at first refused all redress, but assumed a more conciliatory attitude later, and postponed the application of the law. The United States Government did not consent to take joint action with Germany and Great Britain to bring pressure on the disturbed and embarrassed republic.

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HAWAII, a Territory of the United States, formerly an independent kingdom, the integrity of which was recognized by the United States, Great Britain, and France in the reign of Kamehameha III after he had proclaimed a constitution in 1840. In January, 1893, Queen Liliuokalani was forced to abdicate by the menace of United States marines, who were landed, ostensibly to protect American lives and property, at the request of Minister Stevens, and the leaders of the revolutionary party, most of them sons of American missionaries and advocates of annexation to the United States, proclaimed a provisional Government, which was succeeded on July 4, 1894, by a republic, in which native Hawaiians and whites who could read and write either the English or the Hawaiian language had the right to vote indirectly for Senators and members of the House of Representatives. On June 16, 1897, a treaty was signed at Washington by Secretary of State John Sherman and envoys of the Hawaiian Republic providing for the annexation of the islands to the United States as the Territory of Hawaii. The treaty stipulated that the existing land laws of the United States relative to public lands shall not apply in the Hawaiian Islands, but that Congress shall enact laws to secure all revenue from or proceeds of the public lands of Hawaii for the benefit of the inhabitants of the islands for educational or other purposes. Until Congress shall provide for the government of the islands all the civil, judicial, and military powers exercised by the officers of the existing Government were to be vested in such persons and exercised in such manner as the

President of the United States shall direct, and power was conferred on him to remove officers and fill the vacancies so occasioned. The United States assumed all lawful debts of the Hawaiian Government, not to exceed \$4,000,000, but so long as existing customs relations of the Hawaiian Government with the United States and other countries remain unchanged and the existing Government is continued. The municipal legislation of the Hawaiian Islands remains in force until Congress shall determine otherwise, so far as it is not inconsistent with the treaty or contrary to the Constitution of the United States, except such as has been enacted for the fulfillment of treaties with foreign nations, all of which forthwith cease and determine. There shall be no further immigration of Chinese into the Hawaiian Islands, except upon the conditions allowed by the laws of the United States, and no Chinese shall be allowed to enter the United States from the Hawaiian Islands by reason of their annexation to the United States. The United States Congress finally ratified the treaty on July 7, 1898, and on Aug. 12, 1898, the sovereignty over the islands was formally transferred to the United States. Five commissioners were appointed to recommend such legislation for the Hawaiian Islands as they deem necessary and proper. In accordance with their recommendations, all whites, including Portuguese, all persons of African descent, and all descendants of the Hawaiian race, either on the paternal or the maternal side, who were Hawaiian citizens prior to annexation, were declared citizens of the United States. The number of electors on the rolls in

1897 was 2,687. President Sanford B. Dole and all the administrative and judicial officers were continued in their functions. The Cabinet was composed as follows: Minister of Foreign Affairs and of Public Instruction, H. E. Cooper; Minister of the Interior, J. A. King; Minister of Finance, S. M. Damon; Attorney-General, W. O. Smith.

Area and Population.—The island of Hawaii has an area of 4,210 square miles; Maui, 760; Oahu, 600; Kauai, 590; Molokai, 270; Lanai, 150; Niihau, 97; Kahulawe, 63; total area of the islands, 6,640 square miles. The population on Sept. 27, 1896, was 109,020, comprising 72,517 males and 36,503 females. The native population at the time when Capt. Cook discovered the islands in 1778 was estimated at 200,000. In 1853 there were 70,036 natives, and since then the number has steadily declined to 49,044 in 1872, 44,088 in 1884, and 31,019 in 1896. The half-castes have increased from 983 in 1853 to 8,485 in 1896, Americans from 692 to 2,266, Hawaiian-born foreigners from 309 to 13,733, British from 435 to 1,538, Germans from 81 to 912, French from 60 to 75, Norwegians from 8 to 216, Portuguese from 86 to 8,232, other foreigners from 80 to 424, Chinese from 364 to 19,382, Polynesians from 4 to 409, and the Japanese in 1896 numbered 22,329, having come in the last twelve years, mostly as contract laborers for the sugar plantations. A large part of the Chinese and of the Portuguese population was imported in the same way. On Jan. 1, 1898, the total population was estimated at 117,281, having been increased by the immigration of 4,244 Chinese, 2,875 Japanese, 108 Portuguese, and 1,034 other foreigners. Restrictions were placed on Chinese immigration, but the Japanese immigration increased. Of the native Hawaiians about 50 per cent. are Protestants, 33 per cent. Roman Catholics, and 17 per cent. Mormons. Of the total population, 54,522 reported themselves in 1896 as Christians, 42.68 per cent. of these being Protestants, 48.36 per cent. Roman Catholics, and 8.96 per cent. Mormons; 44,306 were non-Christian Chinese and Japanese, and 10,192 declined to state their religious belief or professed no religion.

The system of primary education is one of the most complete in the world. There were 192 schools in the islands in 1897, in which 507 teachers instructed 14,522 pupils, of whom 5,530 were Hawaiians, 2,479 half-castes, 3,815 Portuguese, and 1,638 Asiatics. Of the teachers, 253 were Americans, 119 Hawaiians or part Hawaiians, and 69 British. At the last census 83.97 per cent. of the Hawaiians, 91.21 per cent. of the half-castes, 68.29 per cent. of the Hawaiian-born foreigners, 82.02 per cent. of the Americans, 95.44 per cent. of the British, 86.31 per cent. of the Germans, 92 per cent. of the French, 80.46 per cent. of the Norwegians, 27.84 per cent. of the Portuguese, 53.60 per cent. of the Japanese, 48.47 per cent. of the Chinese, 40.05 per cent. of the Polynesians, and 75.41 per cent. of the persons of other nationalities were able to read and write. Of the total population in 1896, the number of persons engaged in agriculture was 7,570; the number of laborers, 34,438; the number engaged in fishing and navigation, 2,100; in industry, 2,265; in commerce and transportation, 2,031; in liberal professions, 2,580; in the public service, 4,310; without occupation, 53,726. The number of depositors in the postal savings banks in 1897 was 10,620, having average deposits of about \$90. The population of Honolulu, the capital, in 1896 was 29,920.

Finances.—The revenue of the Hawaiian Government in 1860 was \$571,041 and the expendi-

ture \$612,410, and in 1870 the revenue was \$834,112 and the expenditure \$930,550; in the next ten years the revenue doubled, being \$1,703,736 in 1880, with \$1,495,697 of expenditure; in the decade succeeding this there was another increase of over 100 per cent. in revenue, which was \$3,632,196 in 1890, with \$3,250,510 of expenditures; in the years of the sugar crisis and political unrest there was no growth in the revenue. In 1897 the ordinary revenue amounted to \$2,282,454, and expenditure to \$1,924,385. Of the receipts in 1897, customs duties produced \$708,493; taxation, \$763,985; administrative departments, \$242,337; the post office, \$73,530; stamps, \$41,562; water supply, \$64,627; public lands, \$97,739; sales of state property, \$70,251; various sources, \$57,500; balance from preceding year, \$93,627; total receipts, \$2,282,454. Of the expenditures, \$17,060 were for the executive and legislation, \$88,450 for justice, \$57,864 for foreign affairs, \$241,138 for public works, \$195,959 for sanitary affairs, \$179,859 for the Department of Finance, \$245,492 for the public debt, \$263,814 for the Attorney-General's office, \$144,388 for public instruction, \$80,600 for the military force, and \$409,761 for various expenses. The armed force consists of a regiment of 8 companies, numbering 476 officers and men.

The Hawaiian Government borrowed \$34,200 at 6 per cent. in 1882, \$2,000,000 in 1886 at the same interest, \$190,000 in 1888 at that rate, \$124,100 in 1890 and \$119,400 in 1892 at 5 and 6 per cent., \$650,000 in 1893 at 6 per cent. again, and \$562,000 in 1896 at 5 per cent.; total funded debt, \$3,679,700. Including \$809,181 due to depositors in the postal savings bank, the total indebtedness on Jan. 1, 1898, was \$4,488,881.

Commerce and Production.—The soil of the Hawaiian Islands is of volcanic origin, and is exceedingly fertile. The main industry is sugar growing. Rice is also a staple product, and coffee is grown for export. Bananas are shipped to California, and there is considerable trade in hides and skins and in wool. The sugar estates in 1897 gave employment to 24,653 laborers, of whom 12,068 were Japanese, 8,114 Chinese, 2,218 Portuguese, 1,497 Hawaiians, 81 Polynesians, and 675 of other races and nationalities. The export of sugar in 1895 was under 7½ tons for every laborer employed, but in three years the rate of production was increased to almost 10½ tons for each laborer. The total export of sugar in 1897 was 520,158,232 pounds, valued at \$15,390,422; in 1896 it was 443,569,282 pounds, valued at \$14,932,172; in 1895 it was 294,784,819 pounds, valued at \$7,075,590; in 1890 it was 259,789,462 pounds, valued at \$12,159,585, having increased from 171,350,314 pounds, valued at \$8,356,061, in 1885, 63,584,871 pounds, valued at \$4,322,711, in 1880, and 25,080,182 pounds, valued at \$1,216,388, in 1875. The export of molasses in 1897 was 33,770 gallons, valued at \$2,892, making the total value of sugar exports \$15,393,314. The export of rice in 1897 was 5,499,499 pounds, valued at \$225,575. The coffee exported in 1897 amounted to 337,158 pounds, valued at \$99,696, having increased from 255,655 pounds, valued at \$53,650, in 1896, and 118,755 pounds, valued at \$22,823, in 1895. The number of hides exported in 1897 was 25,140, valued at \$87,545; of goat skins, 6,085, valued at \$2,055; of sheep skins, 9,907, valued at \$2,711. Of bananas, 75,835 bunches were exported, valued at \$75,412; of pineapples, the number was 149,515, valued at \$14,423. The export of wool was 249,200 pounds, valued at \$21,308. Other exports, including canned and fresh fruits, betel leaves, tallow, awa, guano, taro, and flour,

were valued at \$11,340. The total value of imports in 1897 was \$7,682,628, against \$6,063,652 in 1896, \$5,339,785 in 1895, \$6,962,201 in 1890, and \$3,673,268 in 1880. The total value of imports as given in the report of the collector general of customs for 1897 was \$8,838,203, of which \$6,502,937, or 73.58 per cent., came from Pacific ports of the United States, \$297,092, or 3.36 per cent., from Atlantic ports of the United States, \$865,781, or 9.80 per cent., from Great Britain, \$292,316, or 3.31 per cent., from Japan, \$260,417, or 2.94 per cent., from China, \$192,932, or 2.18 per cent., from Germany, \$122,453 from Australia and New Zealand, \$58,675 from Canada, \$30,997 from France, \$5,864 from islands of the Pacific, and \$208,738 from other countries and places. The total value of exports in 1897 was \$16,021,775, against \$15,515,230 in 1896, \$8,474,138 in 1895, \$13,142,829 in 1890, \$9,158,818 in 1885, and \$4,968,444 in 1880. The domestic exports in 1897 had a total value of \$15,933,393, of which \$15,910,000 went to the United States, \$11,000,000 to Australasia, and \$12,000,000 to other countries.

Navigation.—Lines of steamers run between Hawaii and the Pacific ports of America, ports of Australasia, and Chinese ports. In 1897 of the total imports 88.20 per cent. in value were landed at the port of Honolulu, 6.23 per cent. at Hilo, 3.59 per cent. at Kahului, and 1.98 per cent. at Mahukona. American vessels brought 69.41 per cent. of the total, English 13.77 per cent., Hawaiian 12.92 per cent., German 3.11 per cent., and others 0.79 per cent. The Hawaiian merchant marine consisted in 1897 of 62 vessels, of 34,066 tons, of which 29 were steamers. The total number of vessels in the foreign trade entered in 1897 was 427, of 513,826 tons; cleared, 415, of 506,967 tons.

Railroads, Posts, and Telegraphs.—There are railroads on the islands of Hawaii, Oahu, and Maui, having a total length of 100 miles. The number of letters that passed through the post office in 1897 was 5,079,872 in the internal service and 1,297,887 in the external service. The telegraph lines have a total length of 250 miles, including a cable between Hawaii and Oahu. Telephones are in nearly every house in Honolulu, and lines of telephone encircle the islands of Oahu, Kauai, Maui, and Hawaii.

HAYTI, a republic in the West Indies, occupying the western third of the island of Hayti. The legislative body is the National Assembly, consisting of a Senate of 39 members, part of them chosen by the lower house from lists submitted by the President and part elected by the people, and a House of Representatives, 95 in number, elected for three years by the votes of all adult male citizens who have regular means of livelihood. The President is elected for seven years. Gen. Tiresias Augustin Simon Sam was elected on April 1, 1896, after the death of President Hippolyte, for the term ending in May, 1902. The Cabinet in the beginning of 1899 was composed of the following members: Secretary of Foreign Affairs, Brutus San Victor; Secretary of Finance and Commerce, Stephen Lafontant; Secretary of the Interior and Police, Tancrede Auguste; Secretary of Agriculture and Public Works, C. Antoine; Secretary of War and Marine, V. Guillaume; Secretary of Public Instruction, M. Chanzy.

Area and Population.—The republic has an area of 11,070 square miles, with 1,210,625 inhabitants, according to the ecclesiastical enumeration of 1894. Port-au-Prince, the capital, has about 60,000 inhabitants. The Haytians are negroes, except about 10 per cent. of mulattoes

and a very small sprinkling of whites. They speak a dialect called creole French, and profess the Roman Catholic faith.

Finances.—The revenue in 1895 was \$7,406,321 in gold, derived mostly from customs, the export duties amounting to \$3,442,114 in gold; the import duties to \$4,107,989 in currency. The expenditure for 1895 was \$8,042,705. For 1897 the estimate of expenditure was \$8,984,539. For 1898 the revenue was estimated at \$2,968,661 in gold and \$4,625,424 in paper. The expenditures were estimated at \$2,223,717 in gold and \$5,365,198 in paper, of which \$82,950 in gold and \$7,780 in paper were for foreign affairs, \$9,423 in gold and \$620,007 in paper for finance and commerce, \$78,400 in gold and \$1,245,485 in paper for war and marine, \$3,000 in gold and \$865,869 in paper for the interior, \$56,626 in gold and \$214,888 in paper for public works, \$219,674 in paper for agriculture, \$26,640 in gold and \$777,250 in paper for public instruction, \$484,072 in paper for justice, \$51,480 in gold and \$36,600 in paper for worship, \$120,000 in paper for the national bank, and \$1,915,197 in gold and \$773,610 for the public debt.

The foreign debt in 1897 amounted to \$13,476,113, consisting of \$4,176,113 of 5-per-cent. and \$9,300,000 of 6-per-cent. bonds. The internal debt consisted of \$4,437,105 of gold and \$10,812,574 of currency bonds.

The Army and Navy.—The military forces number 6,828 men, chiefly infantry, including 4 battalions of artillery of 250 men each, 6 regiments of infantry of the line, numbering 3,200 men, 1,978 gendarmes, and the Government Guard of 650 men, which is commanded by the 10 generals who form the President's staff. Hayti has a naval force of 6 vessels, the newest of which is the *Crête-à-Pierrot*, of 940 tons, built in England in 1895, and having a speed of 15½ knots, with an armament of 1 6.3-inch, 1 4.7-inch, and 4 4-inch Du Bange guns and 6 machine guns. Other vessels are the dispatch gunboat *Capois-la-Mort*, launched at Havre in 1893; the *Toussaint L'Ouverture*, built in 1886; the *Deasallines*, of 1,200 tons, built in 1893; the sloop gunboat *1804* and *St. Michael*; and the gun vessel *22 de Decembre*, of 900 tons.

Commerce and Production.—The value of the imports in 1897 was \$6,363,798, against \$6,053,835 in 1896 and \$6,232,335 in 1895; the value of the exports in 1897 were \$12,549,848, against \$9,463,903 in 1896 and \$13,788,562 in 1895. The exports of coffee for the year ending Sept. 30, 1897, were 73,057,397 pounds; of cacao, 2,120,242 pounds; of logwood, 112,756,225 pounds. The minor exports are cotton, mahogany, hides and skins, and honey. The chief imports are cotton goods, breadstuffs, provisions, hardware. Of the total imports in 1897, the United States furnished \$4,379,000, France \$943,000, Germany \$529,000, England \$309,000, and other countries \$204,000. Port-au-Prince was visited in 1897 by 234 vessels, of 323,611 tons; Cape Haitien by 203, of 274,609 tons; Les Cayes by 144, of 163,842 tons; Jacmel by 212, of 371,468 tons.

The violation of the United States legation by Haytian soldiers, who entered the building to arrest a fugitive political suspect named Duvivier, the Haytian Government atoned for in the summer of 1899 by making an apology and granting reparation.

HOLLAND. (See NETHERLANDS.)

HONDURAS, a republic of Central America. The legislative body is the Congress, or Chamber, of Deputies, containing 46 members, elected by direct universal suffrage, which meets biennially for two months. The President is also elected

by the direct popular vote. Dr. Policarpo Bonilla was elected constitutionally for the term of four years beginning Jan. 1, 1895. Gen. Manuel Bonilla was Vice-President for the same term. The Cabinet in the beginning of 1899 consisted of the following members: Minister of Foreign Affairs and Acting Minister of Justice and Public Instruction, Dr. C. Bonilla; Minister of Public Works, Dr. E. C. Fiallos; Minister of the Interior, Gen. D. Gutierrez; Minister of War, Gen. J. M. Reina.

Area and Population.—The area of Honduras is estimated at 45,250 square miles, with a population in 1897 of 398,877, consisting mainly of pure Indians, with a small proportion of whites of Spanish descent. Tegucigalpa, the capital, has 14,000 inhabitants.

Finances.—The foreign debt, contracted before 1870, amounted with arrears of interest to £17,371,529 on July 1, 1898, no interest having been paid from the beginning. There is an internal debt of \$6,000,000.

Commerce and Production.—The chief commercial product at present is bananas, which are exported to the United States. Tobacco, sugar cane, Indian corn, and coffee are cultivated, and

to a less extent rice, coffee, and wheat. Cattle are raised in large numbers in the elevated parts of the country. The mineral resources of Honduras are enormous, but they are even less developed than agriculture, owing to a scarcity both of capital and labor. From \$150,000 to \$250,000 worth of gold is annually washed from the beds of rivers. Platinum, silver, copper, lead, zinc, iron, antimony, and nickel are also found, besides coal. The Government encourages the investment of foreign capital, granting facilities for the acquisition of land for agricultural or mining purposes to either individuals or companies.

The total value of imports in 1897 was \$3,260,575, against \$1,322,418 in 1896; the value of exports, \$2,647,248, against \$3,125,000. The exports of precious metals in 1897 were \$1,075,000 in value; of cattle, \$705,000; of bananas and other produce, \$839,000.

Railroads and Telegraphs.—A railroad, of which 60 miles have been built, runs from Puerto Cortez, the principal harbor on the Atlantic coast, and under contracts that have been concluded it will be carried through to the Pacific coast, and one built from Puerto Cortez to Trujillo. The length of telegraph lines in 1897 was 2,732 miles.

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IDAHO, a Northwestern State, admitted to the Union July 3, 1890; area, 84,800 square miles; population, according to the census of 1890, 84,385. Capital, Boise City.

Government.—The following were the State officers during the year: Governor, Frank Steunenberg; Lieutenant Governor, J. H. Hutchinson; Secretary of State, Mart Patrie; Auditor, Bartlett Sinclair; Treasurer, Lucius C. Rice; Attorney-General, S. H. Hays; Superintendent of Schools, Permeal French; Mine Inspector, Jay A. Cizek—all fusionists; Chief Justice of the Supreme Court, I. N. Sullivan; Associate Justices, J. W. Huston and Ralph P. Quarles; Clerk, Solomon Hasbrouck.

Finances.—The Auditor reported the total receipts of the treasury for 1897-'98 as \$718,992.26, derived from the following sources: Revenue, \$454,909.63; wagon-road taxes, \$28,450.67; university taxes, \$2,021.84; licenses, \$27,479.20; poll taxes, \$21,304.77; insurance, \$4,543.43; attorneys' fees, \$1,400; docket fees, \$3,228.90; interest on school lands, \$24,014.79; principal on school lands, \$12,092.47; rental of school lands, \$14,308.42; interest on school-fund loans, \$12,014.84; principal on school-fund loans, \$37,770.10; university lands, \$3,360.49; Soldiers' Home endowment fund, \$11,943.75; fees of Secretary of State, \$5,769.85; fees of Supreme Court, \$2,191.65; university endowment fund, \$47,000; 5-per-cent. sale of Federal lands, \$3,750.63; miscellaneous items, \$1,376.83. In his biennial message, at the beginning of 1899, the Governor reported that there had been no increase of the bonded debt of the State in the two preceding years, as no bonds had fallen due or become payable within that period, leaving the debt as follows: Refunding bonds, drawing 6 per cent., \$108,000; wagon-road bonds, 1889, 6 per cent., \$50,000; wagon-road bonds, 1893, 5 per cent., \$135,000; asylum improvement bonds, 5 per cent., \$25,000; normal-school bonds, 5 per cent., \$75,000; total, \$339,000. The warrant indebtedness of the State on Dec. 31, 1898, amounted to \$204,469.64; the appropriation accounts for the different departments showed an unexpended balance of \$31,854.17. In only one department—that

of the Land Board—was any material expense in excess of the appropriation incurred, and that resulted from a protection of the State's interest in the timber districts of Latah and Shoshone Counties, a controversy with certain alleged settlers having resulted in expensive litigation.

Valuation.—The assessed valuation by counties, exclusive of railroad, telegraph, and telephone property, exceeded that of 1898 by \$12,857,757.91, and was as follows: Ada, \$4,836,136; Bannock, \$2,188,102; Bear Lake, \$959,035; Bingham, \$2,360,003; Blaine, \$1,081,740; Boise, \$654,867; Canyon, \$2,792,102; Cassia, \$1,601,748; Custer, \$632,003; Elmore, \$890,116.61; Frémont, \$1,092,310; Idaho, \$1,737,251.80; Kootenai, \$1,160,406; Latah, \$3,213,396; Lemhi, \$1,200,238; Lincoln, \$469,715; Nez Percés, \$2,834,155; Oneida, \$1,516,088; Owyhee, \$1,522,837; Shoshone, \$1,782,382; Washington, \$1,772,449.50. The railroad, telegraph, and telephone assessment amounted to \$46,548,413.33, as against \$30,423,671.95 in 1898.

Mineral Yield.—The total mineral production for 1898 was \$13,591,278, showing a decrease, compared with 1897, of \$138,607. The decrease in the gold production amounted to \$229,767, while the increase in silver production was \$306,780; the increase in lead amounted to \$397,940.

The report of gold shipments from the assay office in Boise City for the fiscal year ending in 1899 shows an increase of about \$175,000 over that of 1898; it also shows that the business done in 1899 was nearly double that of 1894 and nearly treble that of 1890. The latter half of the fiscal year shows an extraordinary increase over the first part. The total regular deposits for 1899 amounted to \$1,549,002.45, while \$82,962.26 was taken in "buttons," or amounts less than 5 ounces, only deposits of more than 5 ounces being counted in the government's statement for publication. The amount shipped to the mint July 1, covering deposits for the last ten days in June, was \$68,024.21, an increase of about \$14,000 over the same period in 1898. The shipments of gold by years since 1890 are interesting as showing the rapid growth of Idaho as a gold-producing State, and are as follow: 1890, \$607,669.60; 1891,

\$608,596.06; 1892, \$641,414.81; 1893, \$787,041.63; 1894, \$801,138.37; 1895, \$1,198,149.91; 1896, \$1,166,251.68; 1897, \$1,394,351.23; 1898, \$1,366,457.95; 1899, \$1,549,902.45.

Land Surveys.—The Northern Pacific Railroad applied for the survey of 7 full and 8 fractional townships in Kootenai County, and deposited \$23,366 to cover expenses. Sixty-two whole and fractional townships were surveyed during the year, the whole embracing 1,070,936.69 acres. There were reported 55,000,000 acres in the State, with only 17,429,391 acres surveyed, leaving yet to be surveyed 37,798,769 acres. Eighty-one lode-mining claims, 33 placers, and 3 mill sites were surveyed for patents, and application was made for the survey of 165 mining claims and mill sites. Besides that of the Northern Pacific Railroad, applications were received for the survey of 109 townships, a small portion only of which are fractional, and contracts were awarded for the survey of 64 townships. The Surveyor-General estimated that the State had increased fully 25,000 in population during the year, and says that "the larger number of newcomers are not miners, but veritable home seekers and home builders." He further says: "In Idaho there are no surveyed districts lying idle and unoccupied. Wherever the government lines have been run the land has at once been appropriated and utilized. The districts and areas which appeared to the first comers to be hopelessly arid and sterile have been made to blossom as the rose and to bear fruit like the garden of the Hesperides."

Education.—In his message to the Legislature the Governor says: "Careful observation leads to the conclusion that the standard of education in the State is surely and rapidly advancing, and much of this advancement is justly attributable to the work of our normal schools, which are maintained solely by State appropriation."

Penal.—The warrants drawn on the Penitentiary appropriation for the fiscal year last reported amount to \$36,711.08; disbursements from the State cash fund raise the total expenditure for the fiscal year to \$40,759.93. The actual cost of maintenance for the year was \$30,698.98. The average cost per capita was 56½ cents; largest number of prisoners during the period, 147; lowest number, 143. Forty-three prisoners were received, 33 were discharged, 13 were pardoned, and 1 died; 20 per cent. were moderate drinkers, 23 per cent. were intemperate, and 20 per cent. were total abstainers; 40 were married and 103 single; 98 attended Sunday school before conviction and 45 did not, while 108 were religiously trained and 35 had no religious training; 7 were well educated, 77 had common schooling, 52 were poorly educated, and 7 were wholly illiterate.

Insane Asylum.—The Legislature made an appropriation for the two years ending Jan. 2, 1899, of \$75,000 for current expenses and transportation of patients and \$25,000 for improvements; from the \$75,000 there had been expended up to Dec. 1, 1898, \$61,297.53; from the \$25,000 had been expended \$14,861.35. There were 189 patients, of whom 119 were males and 70 females; cost of provisions per patient a day, 8.1 cents; cost of fuel, 3.9 cents per capita; cost of clothing, 2.6 cents a day for males and 2.5 cents a day for females. There were 24 officers and attendants in addition to the superintendent, receiving from \$300 to \$800 a year and their living expenses.

Labor Troubles.—In April serious labor troubles began in the Cœur d'Alene mines, growing out of the employment of nonunion miners, and Wardner became the scene of the worst riot since

the labor war of 1892. Damage to the amount of \$250,000 was done by striking union men to mining property through the use of explosives. On the 29th about 1,000 union men seized a train at Burke and proceeded to the Bunker Hill and Sullivan mills, which they completely wrecked. The 230 nonunion employees had received warning, and fled to the hills. This act was soon followed by others of a similar nature. The sheriff, who was unable to quell the riot, telegraphed the situation of affairs to the Governor, who in turn called upon President McKinley for 500 troops, saying that all the available National Guard of Idaho were in service in the Philippines. Troops soon began to arrive, and Gen. Merriam, commander of the Departments of the Colorado and the Platte, took command. Martial law was declared by the Governor in Shoshone County, and about 900 arrests were made, but a large number of the prisoners subsequently escaped. The State built a stockade for the detention of prisoners. By order of the Governor the Auditor issued a proclamation to the Cœur d'Alene mine owners, notifying them against the employment of men belonging to "criminal organizations," and announcing that all persons applying for work in the mines would be required to obtain from the appointed agent for the State a permit to seek for and obtain employment; that mine owners must refuse employment to all applicants not presenting such certificate; and that all persons then under employment in the mines would be required within ten days to obtain such certificates.

The trial of the arrested persons having been delayed by various complications, in September the United States Secretary of War wrote to the Governor, protesting against the further employment of Federal troops to guard the prisoners, saying: "I am informed that they are now being used by the civil authorities of the State and county as a guard for certain prisoners—upward of 100 in number—who have been arrested by the civil authorities upon warrants issued by the civil courts, and are held under such warrants or indictments found by the Grand Jury of the county; that these prisoners, or most of them, have been held for a number of months, and that during the period of their detention the district court of Shoshone County, which is the court having jurisdiction to try indictments found by the Grand Jury, has twice convened and adjourned without bringing these prisoners to trial; that the next regular term of court will not be held until January of next year, and in the meantime, unless something is done to prevent it, these prisoners would remain in prison under guard of the troops of the United States. I do not wish in any way to make any suggestion relating to the administration of justice in your State, or to imply that the failure to bring these prisoners to trial has not been for perfectly good reasons in accordance with the law and practice of the courts of Idaho, but I am much disinclined to have the troops of the United States continued longer in the attitude of retaining in custody the citizens of a State who have remained so long without being tried, and I feel bound to urge that if it is not convenient to bring the prisoners to speedy trial you will substitute civil guards as their custodians, and relieve the troops of the United States from further performance of that duty."

In his reply to the Secretary of War the Governor asserted that the withdrawal of the troops would surely result in great loss of property and life in the Cœur d'Alene region, but said that by Nov. 1 the State would relieve the Federal troops

of guard duty. He took occasion to declare that the State authorities were not in conflict with organized labor, as such, in any manner whatever.

A "story illustrating the viciousness of the Shoshone County dynamiters" was published by the Idaho Statesman, of which the following is a summary: Soon after Gov. Steunenberg entered upon his official duties, in 1897, he was confronted by the Cœur d'Alene question. Under the preceding administration some militia companies had been organized in that section in order that a force might be at hand with which the State could preserve order. These companies were recruited from among the ranks of nonunion men, and their presence greatly disturbed the miners' unions. As soon as Gov. Steunenberg had been installed in office a movement was begun to have these military organizations disbanded, and one of the first steps in this movement was taken by the Shoshone County delegation in the Legislature, all the members of which were elected on the miners' union ticket. This delegation requested the Governor to disband the militia, but the request was not then acceded to.

Only two lives were lost during the Cœur d'Alene riots of April. In November 10 of the prisoners were convicted of destroying mining property, and each was sentenced to serve twenty-two months in the Government prison at San Quentin, Cal.

Legislative Session.—The General Assembly, which met at the beginning of the year, was composed of 9 Republicans, 3 straight Democrats, 2 straight Populists, 2 fusion Democrats, and 5 fusion Silver Republicans in the Senate, and 12 Republicans, 14 straight Democrats, 6 straight Populists, 7 fusion Democrats, 7 fusion Silver Republicans, and 3 fusion Populists in the House. Two of the members of the House were women.

Among the acts passed by the General Assembly were the following:

Authorizing an issue of \$49,000 of State bonds for the purpose of finishing the university and improving other buildings. Of the money raised by sale of the bonds, \$14,000 is to go to the university improvement fund, \$26,000 to the Penitentiary fund, \$3,000 to the Soldiers' Home fund, and \$6,000 to the Capitol building fund. If the bonds sell above par, the premium is to be divided *pro rata*.

Establishing a bureau of immigration, labor, and statistics. The salary provided for the commissioner is \$1,800 a year, with traveling expenses of \$600 a year, and he is also allowed not to exceed \$2,000 a year for printing.

Providing for an enlarged system of irrigation.

Providing that lands acquired by the State by escheat, foreclosure, or relinquishment shall be school lands.

To suppress gambling.

To provide free text-books for the schools.

Requiring kindness to animals to be taught in the public schools.

Decisions.—The Supreme Court reversed the judgment of the lower court in favor of the plaintiff in the case of Bingham County vs. W. A. Woodin, treasurer, and his bondsmen, for money lost in the Bunting Bank failure. In this case the complaint alleged as the first cause of action that the assessor Crowley had called and sought to pay to the treasurer the sum of \$48,719.03; that Woodin did not demand the money, but did receive worthless checks and credits on the Bunting Bank. For a second cause of action it was alleged that Woodin received from Crowley money belonging to Bingham County in the sum of \$48,

719.03; that he failed to keep it safely, depositing it in general deposit in the Bunting Bank.

ILLINOIS, a Western State, admitted to the Union Dec. 3, 1818; area, 56,650 square miles. The population, according to each decennial census, was 55,162 in 1820; 157,445 in 1830; 476,183 in 1840; 851,470 in 1850; 1,711,951 in 1860; 2,539,891 in 1870; 3,077,871 in 1880; and 3,826,351 in 1890. Capital, Springfield.

Government.—The following were the State officers during the year: Governor, John R. Tanner; Lieutenant Governor, William A. Northcott; Secretary of State, James A. Rose; Auditor, James S. McCullough; Treasurer, Floyd K. Whittemore; Attorney-General, Edward C. Akin; Superintendent of Public Instruction, Alfred Bayliss; Adjutant General, J. N. Reece; Superintendent of Insurance, James R. B. Van Cleave; Printer Expert, John H. Barton; Chief Justice, James H. Cartwright—all Republicans; President of Board of Agriculture, W. H. Fulkerson; Board of Arbitration, H. R. Calef, D. J. Keefe, and W. S. Forman; President of Board of Health, C. B. Johnson; Justices of Supreme Court, C. C. Boggs, J. J. Phillips, J. W. Wilkin, J. N. Carter, A. M. Craig, J. H. Cartwright, and B. D. Magruder. The following additional State officers were created by act of April 24, 1899: Food Commissioner, A. H. Jones; Game Commissioner, Henry W. Loveday; Supervising Architect, R. Bruce Watson; Board of Inspectors of Commission Merchants, W. H. Whitcomb, J. W. Stanton, A. M. Crawford, Joseph Newman, and A. M. Smith.

Finances.—The rate of taxation for 1899 was much lower than for several years previous, being 3.08 mills on the dollar for revenue fund or general State purposes, and 1.12 mill for State school fund or State school purposes, thus aggregating 4.2 mills on each dollar of taxable property, against 5.6 last year and 6.6 two years ago.

The total assessment for the counties of the State for 1899, as given by the Auditor, was \$895,869,090, an increase of \$202,425,384 over 1898. The total assessment on 395 corporations was \$2,348,203, against \$2,433,425 on 320 corporations last year. The total equalized value of the tangible property of the corporations was computed at \$26,575,125, against \$14,694,000 in 1898.

The total amount of appropriations passed by the forty-first General Assembly was \$12,557,655.27, of which \$93,341.33 was appropriated to the courts, \$4,418,461.12 to charitable institutions, \$21,480 to libraries, \$106,700 to Lincoln home-stead and monument, \$2,114,000 to the school fund, \$1,027,898 to the military, etc.

Banks.—The records of the State Banking Department in the Auditor's office show 17 State banks organized since Dec. 12, 1898, 2 consolidated, 5 gone into voluntary liquidation, and 1 State bank organized as a national bank. There were 142 State banks in operation Dec. 12, 1898, and there are now 152. The total resources are shown to be: Loans and discounts, \$117,674,519.79; gold coin, \$5,159,508.55; gold-coin Treasury certificates, \$5,416,120; silver coin, \$355,050.04; silver Treasury certificates, \$903,657; national bank currency, \$4,051,624; legal tender and Treasury notes, \$3,135,252; fractional currency, \$82,439.90. Liabilities: Time deposits (savings), \$55,370,508.43; certificates, \$12,969,561.30; demand deposits (individual), \$74,559,354.04; demand certificates, \$5,400,937.33; certified checks, \$658,042.63; cashier's checks, \$635,830.10. The report on building and loan associations showed receipts for examinations and filing fees as \$22,975, and expenses as \$22,817. During the year

custodians were placed in charge of 5 associations; in 3 instances the shareholders went into voluntary liquidation, and in four cases receivers were appointed. The Peoria Savings Loan and Trust Company changed its name to the Bank of Illinois on March 20, 1899.

Board of Agriculture.—The report of the State board showed the corn area, June 30, as 7,126,786 acres, and an average crop yield of 88 per cent. in the northern division, 79 in the central, and 86 in the southern; the spring wheat acreage as 5 per cent. smaller than last year in the northern section, no spring wheat in the central and southern; oats, 4 per cent. larger in the northern division, 3 per cent. larger in the central, and 14 per cent. less in the southern; the acreage of broom corn as last year, but bringing from \$100 to \$122.50 a ton for choice crops; sorghum 9 per cent. less, and millet 9 per cent. more in the northern part and 11 per cent. less in the southern section; total yield of Irish potatoes, about 2,500,000 bushels; the wool clip, about the same as last year.

Board of Arbitration.—By amendments to the arbitration law the board is now able to compel attendance and testimony of witnesses and to demand the production of all necessary papers and books, thus ascertaining all the facts in each case, and it can also enforce its decision by a rule of the circuit or the county court. In the Pana coal case the board fixed the mining rate, May 30, at 30½ cents a ton; for 8-foot entry, \$1.53½ a yard; for 10-foot entry, \$1.38 a yard; for 12-foot entry, \$1.23 a yard; and for all entries over 12 feet and up to 18 feet the price shall decrease at the rate of 7.5 cents a foot; "for turning a room, in addition to the mining price, the miner shall be paid \$4 for the first 15 feet if the width be not less than 9 feet." The scale of wages was fixed as follows: Blacksmiths, \$2.25 a day; dumpers, firemen, and head car trimmers, \$1.75; blacksmiths' helpers, \$1.65; engine coalers, empty cagers, and self-dumping cagers, \$1.60; band pickers, boys, 85 cents; all work not specified, \$1.55.

Board of Health.—The number of cattle visited by this board between May and July was 3,061; herds tested, 62, ranging from 5 to 136 animals in each herd; animals condemned, about 1 to each 100 examined. Of the 62 herds examined, 26 were found free from tuberculosis, and 42 of 45 individual cows examined were pronounced healthy.

Board of Pardons.—In the year the State board considered 123 applications for pardon, and recommended to the Governor a full and free pardon in 1 case and a commutation of sentence in 19 other cases. There were 2,032 examinations of prisoners for parole; 741 convicts were paroled and 352 received final discharge. The rules of the pardon board require that every application for pardon shall be accompanied by a statement from the trial judge and the State's attorney, as well as the full particulars of the crime. Notice of intention to make application for pardon is sent to each newspaper in the county where the crime was committed, so that a protest against it or a petition approving it may be sent to the board.

Board of Pharmacy.—The number of applicants examined by the board during 1898 was 602, of whom 114 were registered as pharmacists, 94 being already registered as assistant pharmacists. The number of assistant pharmacists registered in the year was 145. Of the 66 applications made for registration as assistant pharmacists, 22 were granted certificates, while only 50 of the entire number registered as assistant pharma-

cists were registered apprentices. The total number of registered pharmacists was 4,548, or 22 fewer than in the previous year; assistant pharmacists, 1,256; permits issued to retail domestic remedies and proprietary medicines, 1,659, of which 412 were original permits in localities remote from drug stores.

Canal.—The drainage canal of Chicago, dug to change the direction of the flow of Chicago river, and thus furnish an outlet for the drainage of the city, was completed Dec. 31, after seven years of hard work, at a cost of \$33,000,000. The collateral channel had been finished some time, from a branch of the river in the western part of the city to a point near the main channel. The canal is intended to carry 300,000 cubic feet of water a minute.

Charities.—The fifteenth biennial report of the State Board of Charities, covering the two years ending July 1, 1898, gave the cash disbursements as \$3,504,749.64; amount on hand, \$189,390.69; amount of appropriations undrawn, \$1,877,430.34; average number of inmates in all institutions, 8,775; days' board furnished, 6,405,519; average cost per capita, \$162.57 per annum. The Western Insane Hospital, at Watertown, has been completed, and has a capacity of 650 patients. For the two years beginning July 1, 1898, there was appropriated by the forty-first Assembly to the several charitable institutions the sum of \$3,153,520 for ordinary expenses and \$1,193,755 for special purposes. The surplus, March 31, for all the institutions was \$170,285.87; number of inmates at beginning of quarter, 9,833; at close of quarter, 9,942; per capita cost of maintenance (gross), \$39.46; net per capita cost, \$36.12. The net average cost per capita of the various institutions: Northern Insane Hospital, \$39.83; Eastern, \$37.93; Central, \$28.10; Southern, \$33.56; Western, \$37.13; Asylum for Criminals, \$55.53; Deaf and Dumb Institution, \$54.60; Institution for Blind, \$54.65; Institution for Feeble-minded, \$34.19; Soldiers' and Sailors' Home, \$27.84; Soldiers' Orphans' Home, \$35.12; Soldiers' Widows' Home, \$58.64; Charitable Eye and Ear Infirmary, \$54.08; Home of Juvenile Female Offenders, \$35.05. The amount of undrawn appropriations in the State treasury Jan. 1 was \$957,610.77; March 31, \$576,861.59; Sept. 30, \$1,420,484.35.

Coal.—According to reports received by the Bureau of Labor Statistics, the total coal production for the year was 18,599,299 tons; aggregate home value of the product, \$14,567,598; number of coal-producing counties, 52; of mines and openings, 881; machines employed in mines, 392; mines using machines, 55; tons undercut by machines, 3,415,635; underground workers, 31,602; total number employees, 35,026; new mines or old mines reopened, 120; mines closed or abandoned, 92; number of fatal accidents, 75, or 6 more than last year. Sangamon County ranked first among the coal-producing counties of the State, with its output of 2,083,572 tons; men employed, 2,507; average working days, 210; total wages paid, \$1,174,120; number of kegs of powder used, 73,294, at a retail price to miners of \$1.75 per keg.

Education.—During the past ten years there has been paid for school purposes, outside of teachers' wages, the sum of \$14,015,231.59; for salary of teachers, \$44,731,919.54. The State pays annually for the support of common schools the sum of \$1,000,000, and in ten years there has been raised by voluntary taxation the sum of \$61,000,000. There are about 26,000 public-school teachers in the State.

Fish and Game.—By the new law, which went into effect July 1, no person will be allowed to

seine with a net the meshes of which are less than 2 inches square, and in fish traps the openings must be 2 inches wide. "It shall be unlawful for any person or persons or corporation to take, catch, or kill in any manner or by any means whatsoever, in the waters of Lake Michigan, any whitefish or lake trout between the fourteenth day of October in each year and the succeeding thirtieth day of November. All packages containing fish shall be labeled in plain letters on the address side of the package, so as to disclose the fact that said package contains fish and the nature of said fish in said package." In 1896 the output of coarse fish from 32 points on Illinois river was more than 7,000,000 pounds, bringing \$207,000. In 1897 a marked increase in aggregate sales was shown, amounting to \$249,000. In 1898 there was an aggregate of \$500,000, a business interest made possible by enforcing the proper protective laws and rescuing the fish from overflowed lands in bottoms along the rivers where fish left by the receding tide would otherwise perish.

Food Commissioner.—An act to provide for the appointment of a State Food Commissioner, to define his duties and powers and fix his compensation, and to prohibit and prevent adulteration, fraud, and deception in the manufacture and sale of articles of food, was approved April 24, 1899, and in force July 1. It is the duty of the commissioner to enforce all laws regarding the production, manufacture, or sale of dairy products or the adulteration of any article of food, and personally or by his assistants to inspect any article of food made or offered for sale within the State if for any reason he may have a suspicion that said food is impure, unwholesome, adulterated, or counterfeit. He shall carefully inquire into the quality of the dairy and food products manufactured for sale or sold or exposed for sale in the State, procure samples of the same, and have them submitted to examination or analysis. When food is found adulterated, impure, or unwholesome it shall be his duty to make complaint against the manufacturer or vender thereof in the proper county, and to furnish the prosecuting attorney with evidence to convict thereon. In the term "food" is included all articles—simple, mixed, or compound—which are used for food, candy, drink, or condiment by man or by domestic animals.

Insurance.—The statement of the Insurance Superintendent, issued in February, showed the number of companies doing a general fire and marine insurance business to be 201, with an aggregate paid-up capital of \$79,158,449.57; admitted assets, \$300,318,565.25; liabilities, \$198,926,073.25; surplus, \$101,412,310.12; total income, \$151,491,565.39; total expenditures, \$142,864,813.44; losses incurred, \$8,211,282.31; premiums received, \$13,006,528.30; risks written, \$1,306,478,149.10; 125 companies received \$10,552,277.55 more than they disbursed, and 76 companies disbursed \$1,925,525.60 more than they received, leaving a net excess of receipts of \$8,626,751.95.

The number of life insurance companies doing business in the State, as reported April 10, was 208, of which 42 were legal reserve, 40 assessment, 34 accident, and 82 fraternal societies. The 42 legal-reserve companies reported the number of policies issued, restored, and increased since last report as 496,021, amounting to \$1,039,479,383.58; policies terminated, 294,452, amounting to \$681,565,777.24; total policies in force at close of year 2,406,977, amounting to \$5,715,772,665.88; total assets, \$1,460,563,472.02; total liabilities, \$1,243,264,989.66. The 34 fidelity, surety, and casualty

companies showed a capital of \$14,720,000; admitted assets, \$95,910,775.15; liabilities, including capital, \$79,323,944.03; risks in force Dec. 31, \$3,648,280,393.17. The 40 assessment companies reported the number of certificates in force Dec. 31 as 423,015, amounting to \$885,514,531.92; assets, \$17,068,274.77; liabilities, \$5,069,543.43. The 10 accident associations showed total assets, \$637,281.54; liabilities, \$136,783.39; certificates in force, 67,021, insuring \$239,271,498; written during the year, 51,284, insuring \$138,447,700. The 82 fraternal societies reported the number of policies in force as 1,800,056; total admitted assets, \$11,780,013.90; liabilities, \$4,191,141.91.

Military.—The cost to the State for the military forces on duty at Pana and Virden during the riot was reported by Adjutant-General Reece as \$60,386.28, the National Guard having received about \$53,000 direct and the remainder for transportation and supplies.

"During the past two years the following additional flags have been deposited in the cases in Memorial Hall: The colors of the First Illinois Infantry of the Mexican War; of the Fourth and Sixth Regiments of cavalry; and Company A, Thirteenth Cavalry, civil war." The visitors' book shows the average attendance in this hall for the past year to have been 105 a day, and that every State in the Union was represented on the list, as well as England, Nova Scotia, Japan, Mexico, Cuba, and Ontario.

In the war with Spain 9 regiments of Illinois infantry, 1 of cavalry, 3 divisions of the naval militia, and the signal troop were mustered into the Federal service.

Railroads.—The Chicago and Alton was the first railroad in the world to use the Pullman sleeping and dining car. It has a total length of 834 miles in trunk line and branches, with 1,186 miles of double tracks and sidings. The Illinois and Mississippi Valley Terminal Railroad Company was incorporated on June 26, with a capital stock of \$100,000.

State Institutions.—The Eastern Normal School, at Charleston, was formally turned over to the trustees Aug. 29. This school was established by an act of the General Assembly that went into effect July 1, 1895. On Sept. 7, 1895, the school was located at Charleston, and in December following a contract for building was signed. The appropriations made by the General Assembly for building and furnishing have amounted to \$171,000, and Charleston has given \$56,216.72. The General Assembly made an annual appropriation of \$33,000 for defraying the ordinary expenses of the school. The University of Illinois in 1896-'97 had a total enrollment of 1,075; in 1897-'98 a total of 1,582, of which number 245 were women. On June 30, 1898, there was a balance on hand of \$9,140.69; receipts for the year, \$406,622.94, made up of a balance from 1897 of \$51,640.70; fees from students, \$26,630.95; State appropriations, \$210,000; United States Government, \$41,419.92; departments and laboratories, \$5,162.55; School of Pharmacy, \$10,516.94; of medicine, \$41,390.25; miscellaneous, \$213,366.95; total expenditures for the year, \$397,482.25. The report of the College of Agriculture showed the number of students enrolled to be 69, as follows: Farm mechanics, 34; farm crops, 29; history of agriculture, 14; soil physics, 3; bacteriology, 3; stock judging, 58; stock management, 20; milk production, 10; testing, 10; horticulture, 25; orcharding, 3; commercial horticulture, 3; veterinary, 22; clinic, 21; thesis for graduation, 2. From the agricultural experiment station of the University of Illinois has come a

pamphlet giving a history of the experiments with sugar beets. It obtained from Washington a quantity of the best imported seeds, which were distributed to more than 600 farmers in different sections of the State, with directions for sowing and care. The station also grew a quantity of beets on its own soil. The results proved that Illinois can grow large yields of beets of excellent quality. The results of the analysis of 400 samples of beets was published and 19,000 copies were distributed. At Peoria and Pekin a strong company has been organized with a 700-ton factory, and beet growing has now become one of the great commercial questions of the State.

Treasurers' and Assessors' Association.—A permanent organization of the county treasurers has been formed, for the purpose of carrying out the provisions of the revenue laws of the State and to consider any questions of mutual interest to members of the association.

Legislative Session.—Among the bills that became laws were the following:

To enable cities and villages to buy or construct waterworks and to levy taxes for the same.

To empower the city board of education to examine teachers for certificates in cities of more than 30,000 and less than 100,000 population.

To insure the better education and compel registration of opticians.

To provide for the appointment of a pure-food commissioner.

To require corporations to report to the Secretary of the State annually, empowering the Secretary to cancel the charters in case of failure to comply with the law.

To allow counties to erect monuments and memorial buildings in memory of their soldiers and sailors.

To prohibit the use of the national flag for advertising.

To tax all corporations 2 per cent. of their gross earnings.

The aggregate amount appropriated by the Assembly for the next two years was \$11,500,000, an increase over the last appropriation due to the \$600,000 appropriated on account of the Spanish-American War, \$200,000 for a new asylum at Peoria, and \$100,000 for the Lincoln monument.

IMMIGRATION BUREAU. This is one of the latest wheels added to the great machinery of the United States Government. Only during the past twenty years have attempts been made to check the flood of foreign arrivals. The law of 1875, forbidding the landing of criminals and the importation of women for immoral purposes, was the first prohibitory legislation. As the population of the country became more dense and the question of subsistence more anxious a decided jealousy of cheap labor spread throughout the United States, and appeals were made to Congress in behalf of American workmen who were being driven out of employment by the alien influx. In 1882 a bill was passed which imposed a duty of 50 cents for each passenger not a citizen of the United States, to be paid to the collectors of customs by vessels arriving at the different ports. This tax was afterward increased to \$1, and constituted the immigration fund, which, under the direction of the Secretary of the Treasury, was employed in regulating immigration and in caring for such helpless foreigners as through accident or failing health became a burden upon public charity. The fears of American workmen were further allayed by the act of 1885 and its amendatory act of 1887, which forbade importation of foreign labor, imposing a fine of \$1,000 upon every employer who should

continue to import workmen, and a penalty of \$500 upon any steamship company that should connive at such violation of law. It was also provided that the offending immigrant who, allured by the promise of definite work, should arrive at any port was to be promptly carried back at the expense of the steamship company to the place from which he embarked.

On April 19, 1890, Col. John H. Weber, a Federal officer, was sent to New York to take charge of the famous immigrant station at Castle Garden, and administer the restrictive regulations of the General Government. Soon after this movement the Immigration Bureau was recognized as a distinct branch of the Treasury Department, and the entire management of immigration was placed under national control. Hon. W. D. Owen (father of the bill that is known by his name), at the close of his term in Congress, was appointed superintendent of the new bureau. The Owen law, approved March 3, 1891, excluded from admission to the United States all idiots, insane persons, paupers, or persons likely to become a public charge, persons afflicted with any loathsome or contagious disease, persons who had been convicted of felony or infamous crime, and all persons whose ticket or passage was paid for by others, unless it could be satisfactorily proved that such persons did not belong to any of the excluded classes and that they were not contract laborers. This section of the law, however, did not prevent persons living in the United States from sending for a relative at their own expense. Neither were foreigners convicted of political crimes abroad debarred admission.

In 1893 the Marine-Hospital Service began a practice which had important results to the Immigration Bureau. It sent medical inspectors to the principal ports of embarkation in Europe to examine physically all emigrants bound for the United States, and insist upon the strictest precautionary measures of quarantine while America was threatened by an invasion of cholera. Taking this action as an initial movement, the Hon. Herman Stump, member of Congress from Maryland, chairman of the Committee on Immigration, effected the passage of a bill that provided for a complete examination of immigrants abroad prior to their going on board ship. The operation of the Stump law at the present day requires that each master or commanding officer of a vessel intending to bring immigrants to the United States shall furnish to the proper inspectors of immigration lists containing 30 names each, which he has duly signed and certified by oath before the American consul, and which shall state, in answer to the questions at the top of such lists, the full name, age, and sex of each immigrant, whether married or single, the calling or occupation, whether able to read or write, the nationality, the last residence, the seaport for landing in the United States, the final destination, whether having a ticket through to such destination, whether the immigrant has paid for his passage or whether it has been paid by some other person or corporation or society, whether he is in possession of money, and if so whether more than \$30 or less than that amount, whether going to join a relative, what relative, his name and address, whether ever before in the United States, whether ever in prison or almshouse or supported by charity, whether a polygamist, whether under contract, express or implied, to perform labor in the United States, and what is the condition of health, mental and physical. This last statement is required to be verified by the ship's surgeon under oath. This method of in-

vestigation, conducted at the home of the immigrant, with its thorough probing of hereditary and local conditions, has transmitted a widely diffused knowledge of the classes debarred admission to the United States, and the information thus disseminated deters many from making a fruitless attempt to come to the New World. From motives of self-interest the steamship companies exert themselves zealously to aid in the enforcement of these regulations. Their ticket agents are instructed to be scrupulously careful in the sale of tickets, under penalty of paying the price of deporting rejected persons, and their zealous co-operation with the Government has been further stimulated by recent enactments in Italy and Sweden which give the deported immigrant the right to sue for damages the company that sold him his passage.

It was easily anticipated that immigrants, in order to escape the varied obstacles of the law of 1893, would seek to enter the United States by way of Canada. To counteract this tendency an agreement was promptly entered into with the Canadian transportation companies by land and water, by which it was determined that all immigrants bound for the United States should be landed at five ports—viz., Halifax, Quebec, Point Levis, St. John, and Vancouver—and that at these points United States inspectors should be given every accommodation and facility for segregating the objects of examination, on condition that the duty should be executed as speedily

of the Immigration Bureau, with the title of commissioner general, and in 1896 he was sent by the Secretary of the Treasury to Italy to confer with the ministers of that kingdom in relation to immigration. As a result of this conference the Italian Prime Minister issued a proclamation directing the royal prefects to refuse passports to all applicants included in the classes prohibited by law from entering the United States. That the rules of this edict are being rigorously enforced is convincingly proved by the fact that the bureau constantly receives information of the conviction of ticket sellers for violation of its immigration law in Italy.

The United States maintain 38 immigrant stations, at the following-named ports: Ellis island, New York; Halifax, Nova Scotia; Cincinnati, Ohio; Rouse's Point, N. Y.; Toledo, Ohio; Buffalo, N. Y.; Ogdensburg, N. Y.; Baltimore, Md.; Pittsburg, Pa.; Springfield, Ill.; Port Huron, Mich.; Pembina, N. Dak.; Concord, N. H.; Tacoma, Wash.; San Francisco, Cal.; Suspension Bridge, New York; Portland, Me.; Laredo, Texas; Galveston, Texas; New Orleans, La.; Savannah, Ga.; Boston, Mass.; Chicago, Ill.; Sault Ste. Marie, Mich.; El Paso, Texas; Quebec, Canada; Sumas, Wash.; Philadelphia, Pa.; Eastport, Me.; Cleveland, Ohio; Burlington, Vt.; Key West, Fla.; Norfolk, Va.; Detroit, Mich.; Vanceboro, Me.; West Superior, Wis.; Newport, Vt.; Eagle Pass, Texas.

There are 5 immigration commissioner's sta-

THE NEW IMMIGRANT STATION, ELLIS ISLAND, NEW YORK HARBOR.

as possible and a passport be given to each admitted immigrant identifying him and enabling him to cross the Canadian frontier. To defray these expenses the Canadian transportation companies pay to the United States \$1 for every immigrant landed whose destination is the United States.

As a result of its vigorous policy, the Immigration Bureau receives indirect assistance from the German Empire, since the population of many countries in the interior of Europe are obliged to cross this empire in order to reach a seaport, and those immigrants who are rejected by the American officials are liable to become burdens upon the charity of German institutions for the poor. To defend these asylums from being crowded with paupers of other countries, the German minister promulgated an order on Oct. 8, 1893, directing the police on the frontiers of the empire to challenge all emigrants on their way to the seaboard, subject them to examination, and refuse to allow those to proceed who are likely to be rejected by the American authorities. In 1893 Herman Stump was placed in charge

tioned respectively at New York, Boston, Philadelphia, Baltimore, and San Francisco. The number of inspectors employed depends upon the size and importance of the port. The finest immigrant station in the United States (and in the world) was the one maintained for the port of New York at Ellis island, which was destroyed by fire in June, 1897. Since the great wave of foreign elements breaks principally upon the wharf of New York city, as many as 25 inspectors are employed for this port during the busy season. The selection of Ellis island as the site for the immigrant station of New York was made soon after Col. Weber assumed charge at Castle Garden, when it was found necessary to have a more secluded spot for the proper management of applicants for admission to the country. Improvements upon the island were begun at once, and its size was doubled by means of piling and filling until its area was 5½ acres. Then a fine plant gradually rose, nearly a million dollars being expended in its construction and equipment. It was first occupied in January, 1891, but additions and improvements were made continually,

so that it was not pronounced completed until a few days before its total destruction. The last work was that of laying the cables to New York for telegraph and telephone communication by way of Governor's island, and the disinfection plant for the washing of immigrants and fumigation of their clothing. Immigrants were transferred from the Barge Office, where they first arrived, to Ellis island by means of a ferryboat, that no other persons were allowed to use except by special permit from the authorities in charge. For the protection of ignorant foreigners from the wiles of land sharks all visits to the station were forbidden except those made upon legitimate business known to the commissioner. Every courtesy was extended to the representatives of charitable societies and to the friends and relatives who came to meet immigrants. In 1893 Dr. Joseph H. Senner succeeded Col. Weber as Commissioner of Immigration for the port of New York. The terrible fire, which was discovered shortly after midnight on June 14, 1897, and which within an hour reduced the Ellis island station to ashes, was not, as it first appeared to be, an unmitigated calamity. A serious mistake had been made in constructing all the buildings of wood, and awful risks were constantly incurred during the six years of the station's existence. Although the whole force of employees was organized into a fire drill, its guardianship extended only over the hours of daylight; by night the cluster of buildings was unprotected. According to the statement of Dr. Senner, the efforts of the fire brigade, had it been there, would have availed nothing against the rapid conflagration of the pine structures. How the fire originated remains a mystery. Some nights there have been as many as 2,000 immigrants on the island, but, fortunately, on the date in question only 170 persons were in the detention house and 44 patients in the hospital. No life was lost. The loss of Government property amounted to about \$570,000, since the electric and steam-heating plants were saved, as well as a small fireproof house where records were kept. Dr. Senner removed his quarters immediately to the Barge Office, and the agents of the various steamship lines tendered the use of their piers for inspection of immigrants.

As a temporary expedient, the steamboat *Naragansett*, of the Providence and Stonington line, was chartered and moored to the wharf, its interior being fitted up as a detention house. This steamer can accommodate 800 persons, besides furnishing rooms for a physician, matron, and other attendants; but the work is greatly hampered by such cramped quarters, awaiting the completion of the new buildings now under construction at Ellis island.

Immigrants are not legally recognized as landed until they have passed satisfactorily the inspection at the immigrant stations. This consists of a second physical examination before a marine-hospital surgeon and repetition of statements contained on the lists before the registration clerks, when any discrepancy between the answers and the written testimony is carefully noted. Interpreters are at hand to facilitate the work, and it is accomplished as rapidly as possible. The clerks are experts in dealing with human nature, and readily distinguish between the hesitation of nervousness and that of cunning or evasion. Those who are honest and straightforward in their conduct are promptly discharged, while all suspected individuals are removed to detention compartments to await special examination. The investigation of special cases is

conducted before four officials, and the law requires that a favorable decision must be rendered by three of these before an immigrant can be admitted. The dissenting inspector has the right to appeal the case to the commissioner general, who in turn can submit it to the Secretary of the Treasury for consideration. The immigrant is entitled to a speedy hearing, and is either ordered to be deported or granted admission without delay. Representatives of charitable societies are present at his trial, and agents of the steamboat companies are also near by from interested motives. Italy sends officials to watch over the interests of her nationality and see that no Italian is unjustly debarred. If the immigrant asks for an appeal from an adverse decision a record of proceedings is transmitted to headquarters at Washington, and the expense of his board and lodging is charged to the steamship company that transported him. Such immigrants as are ill at the time of arrival are placed in hospitals until sufficiently recovered to travel, where they are maintained at the expense of the steamship company until their examination can be held and judgment rendered.

The operation of the immigration laws extends over the period of a year from date of arrival, and if during such period it is discovered that an immigrant has entered the United States in violation of its express regulations the offending individual can be arrested and returned to his home, the transportation company being forced to defray the expense of his maintenance from the time that the attention of the bureau was called to his case, as well as the cost of his deportation. If from accident or disease an immigrant becomes unable to earn his livelihood within a year after date of arrival, he is removed to a hospital until it is clearly proved that his failing health will make him a permanent burden upon charity, when he is deported, all expenses incurred thereby to be charged to the immigration fund. If his illness is the result of hereditary causes, the cost of his maintenance and return home is paid by the transportation company. The charge for food, lodging, and hospital care is not in excess of the actual cost of furnishing them, since it is desired to make the service self-supporting without profit.

The duties of inspectors specially assigned to the execution of the alien-contract-labor law require them to investigate all complaints of alleged violation and, if necessary, report the offenders to the Immigration Bureau for prosecution. They are even sent to places where labor strikes growing out of the employment of foreign workmen are pending, and they are instructed to keep in touch with the labor organizations throughout the country as a means of securing information concerning infractions of the law.

Recent experience has shown that the best means of discovering those individuals violating the alien-contract-labor laws is to conduct the inquiry at their place of ultimate destination. During the past year several suspected aliens were followed to Iowa, Illinois, and Pennsylvania, where industrial disputes were in progress between employers and laborers, and were there arrested for violation of law and deported. Strong presumptive evidence also exists of the successful importation of foreign labor under contract into other States, native workmen being displaced. The Immigration Bureau acknowledges its incapacity to deal with these fraudulent enterprises, the qualifications for such work not being those of an ordinary inspector at our immigrant stations, but belonging to a trained po-

lice inspector or detective. Recommendation is made that a detective force be placed at the disposal of the Commissioner of Immigration to act at the great centers of mining, manufacture, and other industries and report upon their investigations to headquarters at Washington. One definite reform has resulted, however, from the measures adopted to enforce the alien-contract law—a check has been given to the padrone system, and many Armenians, Syrians, and Italians of the lower classes have been freed from a servile obedience to the padrones who have clandestinely landed them within our country to serve as peddlers, mendicants, fruit sellers, or street musicians.

No official records were kept of the influx of foreign population prior to 1820, but it is estimated by good authorities that the number of immigrants arrived in the United States from the close of the Revolutionary War up to 1820 was 250,000. The number in each year from 1820 to 1855 was as follows, some slight discrepancies being produced in the figures by change of the official end of the year from Sept. 30 to Dec. 31 and back again: 1820, 8,385; 1821, 9,127; 1822, 6,911; 1823, 6,354; 1824, 7,912; 1825, 10,199; 1826, 10,837; 1827, 18,875; 1828, 27,382; 1829, 22,520; 1830, 23,322; 1831, 22,633; 1832, 60,482; 1833, 58,640; 1834, 65,365; 1835, 45,374; 1836, 76,242; 1837, 79,340; 1838, 38,914; 1839, 68,069; 1840, 84,066; 1841, 80,289; 1842, 104,565; 1843, 52,496; 1844, 78,615; 1845, 114,371; 1846, 154,416; 1847, 234,968; 1848, 226,527; 1849, 297,024; 1850, 369,980; 1851, 379,466; 1852, 371,603; 1853, 368,645; 1854, 427,833; 1855, 200,877; total, 4,212,624.

Before 1856 the official statistics of the arrivals of passengers from foreign countries do not distinguish those intending to make their permanent residence in this country from merely transient sojourners, but there were during that time comparatively few of the latter. It has been estimated that 98 per cent. of the alien arrivals prior to 1856 were immigrants.

The arrivals of immigrants in the United States from 1856 to 1899 were as follow: 1856, 195,857; 1857, 246,945; 1858, 119,501; 1859, 118,616; 1860, 150,237; 1861, 89,724; 1862, 89,007; 1863, 174,524; 1864, 193,195; 1865, 247,453; for the six months ending June 30, 1866, 163,594; for the fiscal year ending June 30, 1867, 208,967; 1868, 282,189; 1869, 352,768; 1870, 387,203; 1871, 321,350; 1872, 404,806; 1873, 459,803; 1874, 313,339; 1875, 227,498; 1876, 169,986; 1877, 141,857; 1878, 138,469; 1879, 177,826; 1880, 457,257; 1881, 669,431; 1882, 788,992; 1883, 603,322; 1884, 518,592; 1885, 395,346; 1886, 334,203; 1887, 490,109; 1888, 546,889; 1889, 444,427; 1890, 455,302; 1891, 560,319; 1892, 623,084; 1893, 502,917; 1894, 314,467; 1895, 279,948; 1896, 343,267; 1897, 230,832; 1898, 229,299; 1899, 311,715.

From these figures it may be seen that the year of the largest immigration was 1892, when the number of arrivals at our ports aggregated 788,992. The next largest volume was in 1881, when the number was 669,431. The arrivals for 1892 numbered 623,084, showing an increase in volume over every year since 1883. The marked decrease in immigration during the past six years has been attributed to the unpropitious conditions of trade and business, but there can be no doubt that the migratory disposition of European peasantry toward this country has been restrained by the unsuccessful attempts of so many of the prohibited classes to gain admission. This is especially noticeable in the marked decrease of immigrants from Russia and Austria until 1899, when the figures representing arrivals from these countries increased. Other causes are at work.

Canada and the South American republics are offering substantial inducements to newcomers, such as bounties and land grants. Large numbers of persons are leaving the ports of Genoa and Marseilles for Brazil and the Argentine Republic, where they immediately become producers of the staples that come into direct competition with our own.

Another fact is worthy of consideration in contemplating the large number of arrivals in the United States. Only about half of those who come remain in the country as permanent residents. Some aliens come and go so often that old officials at the immigrant stations recognize them, yet they are each year listed as new arrivals. For example, out of the 230,832 arrivals during the fiscal year 1897 as many as 1,880 were debarred admission on account of belonging to the prohibited classes. Deducting from the remainder those who came to join families and those who had been here before, only 88,666 were left, representing those who came to seek a new home in the United States.

Th arrivals of immigrants by decennial periods furnishes the following interesting table:

PERIODS.	Aggregate arrivals.	Annual average.
Decade ending with 1880.....	143,439	14,343
" " 1840.....	599,125	59,912
" " 1850.....	1,713,251	171,325
" " 1860.....	2,598,314	259,831
" " 1870.....	2,314,694	231,469
" " 1880.....	2,812,191	281,219
" " 1890.....	5,246,613	524,661
From 1891 to 1899 inclusive.....	3,395,848	377,316

During the decade 1881 to 1890 an aggregate of 5,246,613 immigrants arrived, which number is 34 per cent. of the entire arrivals during the period of six decades comprised between 1820 and 1890.

In the early history of the immigration movement, from 1821 to 1860, more than half of the influx to this country was from England and Ireland, but there has been since 1820 almost a constant increase of immigration from nearly all countries. France is an exception to this rule. During the decade 1871 to 1880 the total immigration from France to the United States was 72,206, and in the ten years from 1881 to 1890 it was 50,464. The increase in the number of immigrants from Italy, Austria, Hungary, Poland, Russia, Germany, Norway, and Sweden has been very marked. During the past year the arrivals from Italy—viz., 77,419—constitute nearly one fourth of the entire immigration. It is interesting to note the proportion of each of the leading nationalities in the grand aggregate of 16,611,060 arrivals from 1821 to 1892 inclusive:

Germany.....	4,748,440	Scotland.....	347,900
Ireland.....	3,592,347	China.....	296,219
England.....	2,534,965	Switzerland.....	186,488
Norway and Sweden.....	1,092,198	Denmark.....	163,769
Austria-Hungary.....	888,668	All other countries.....	2,700,296
Italy.....	526,749		
Russia and Poland.....	517,507	Total.....	16,611,060
France.....	379,687		

The aggregate arrivals, by nationalities, in the period 1893 to 1899 inclusive, the seven years since decided measures were taken to regulate immigration, have been:

Italy.....	417,367	Scotland.....	34,166
Austria-Hungary.....	319,369	France.....	30,976
Russia and Finland.....	284,863	Denmark.....	25,492
Poland.....	37,478	Switzerland.....	17,778
Germany.....	281,108	All other countries.....	166,808
Ireland.....	257,212		
Norway and Sweden.....	190,591	Total.....	2,312,445
England.....	160,816		

A new system of tabulation has been adopted in the statistical statement of 1899, which shows the race to which immigrants belong distinct from the country whence they embark for the United States. In dealing with large figures this distinction of races makes a vast change in the reports of immigration, for out of the 60,982 supposed Russians that entered our country in 1899 about 5,383 were Germans, 15,517 were Poles, 1,012 were Scandinavians, 24,275 were Hebrews, 120 were Bohemians, and 14 were English. As great discrepancies regarding the real nationalities of immigrants no doubt exist in the reports of former years.

Immigrants of all nations come under the jurisdiction of the Immigration Bureau, with the exception of those from China, who are dealt with by the Chinese Bureau. Immigration from that country reached its maximum in the years from 1869 to 1882 inclusive. During the decade ending 1880 it amounted to 123,201, and in the two years 1881 and 1882 it aggregated 51,460. The law excluding Chinese laborers went into effect Aug. 6, 1882, and subsequent years show a decrease annually from thousands to fewer than a hundred. The large figures registered by the Chinese Bureau recently indicate that Chinese of other occupations than laborers are seeking our shores. Since 1891 the arrivals from China have averaged 2,000 a year.

On the Pacific coast the Japanese arrivals are exciting general interest and attracting the same prejudice which led to the Chinese-exclusion act. The Japanese immigrant has no family, and he works for wages that would scarcely keep a white laborer from starvation. He is steadily lowering the standard of living in California and other States, and the immigration laws can not check his progress, since he can not be included within any of the prohibited classes. He is not a beggar, he always brings money enough with him to last until he can secure employment, and it can not be proved that he had entered into any contract to perform labor prior to coming to the United States, because he knows that the lowest rate of wages in America is higher than what he can obtain in his own country. The Japanese movement to the United States began in 1861 with a single arrival, and after a total cessation for four years 7 more arrived in 1866. During the first decade, 1861 to 1870, the total immigration of Japanese was 218; during the second decade, 1871 to 1880, it was 149. In 1892 the number of arrivals was 1,498, of which 41 were females; in 1899 they aggregated 2,844.

Immigrants who are citizens of and come from foreign contiguous territory are inspected the same as other aliens; but they are expressly exempted from payment of the head tax, and therefore derive no benefits from the immigration fund. Along our northern frontier large numbers arrive and depart after finding temporary employment ranging from six months to a few days. No statistics are prepared in relation to these transitory aliens. They are principally thrifty, industrious people, and their presence for the express purpose of obtaining work has excited bitter jealousy on the part of the trades unions. Urgent protests have been sent to the Immigration Bureau and to Congress requesting that laws be enacted excluding Canadians from seeking employment in the United States. Canada threatens to retaliate and assume a similar unfriendly attitude toward United States citizens who desire to engage in business within her territory, and the legislative bodies of both countries have the subject under consideration. The same condi-

tion exists, but in a much less degree, along the Mexican border.

The proportion of the sexes of immigrants for the past seven years is given as follows:

YEARS.	Males.	Females.	Totals.
1893.....	290,844	159,896	450,740
1894.....	169,274	116,367	285,641
1895.....	149,016	109,580	258,596
1896.....	212,406	130,801	343,207
1897.....	135,107	85,735	220,842
1898.....	185,776	95,534	281,310
1899.....	195,377	116,488	311,865

By comparison of the ages of immigrants from different nationalities the following general statement has been reached: Ireland, Hungary, and Italy furnish the largest percentages of immigrants between the ages of fifteen and forty, being respectively 78, 74, and 69 per cent. Italy at the same time furnishes much the largest percentage of immigrants more than forty years of age—namely, about 15 per cent.—while the average percentage of all other countries is about 10. The next largest percentage of immigrants who have passed the prime of life is furnished by Austria, this proportion being about 11 per cent. The lowest percentage of those above the age of forty years is in the immigration from Ireland—namely, about 7 per cent. of the whole. The highest percentage of children under fifteen years of age comes from Germany, and is about 26 per cent; the lowest from Ireland, being about 14 per cent.

The occupations of immigrants are classed as "professional," which embraces musicians, teachers, clergymen, artists, lawyers, physicians, etc.; "skilled occupations," embracing those engaged in forty or more different trades, such as blacksmiths, carpenters, machinists, printers, miners, tailors, dressmakers, etc.; "miscellaneous," which includes farmers, merchants, laborers, servants, etc.; and "without occupation." From consideration of the character of the foreign population which sought the United States during the decade from 1881 to 1890 (which comprises the largest number of arrivals of any decade), a fair estimate of the whole may be obtained. The professional class forms a very inconsiderable proportion, or 0.51 per cent. of the total immigration. The skilled also make up a very small proportion—in fact, but 10.30 per cent. of the whole number. The class denominated "miscellaneous" constitutes 39.63 per cent. of the whole. The largest class, which represents 47.34 per cent. of all, is made up of those who have no occupations.

Since the immigration law of 1893 went into operation this condition of affairs has been ameliorated. The number of immigrants having no occupation has greatly diminished.

On Aug. 3, 1897, the Hon. Terence V. Powderly, who for fifteen years had been grand master workman of the Knights of Labor, was appointed by President McKinley Commissioner General of Immigration. The recommendations made by Mr. Powderly in the annual reports of his bureau for 1898 and 1899 show a comprehensive grasp of the immigrant subject, and prove him to be still an energetic friend of the American workingman. He calls attention to the decided tendency of immigrants to crowd into our great cities, and suggests that concerted measures be adopted by the States in which these large centers of population are located to distribute foreign arrivals in such a manner as to utilize their labor where it is needed, and avoid those disturbances of the peace which result from aggregation of strangers

in any community. The rigor of our immigration laws has resulted in many ingenious devices on the part of foreigners to avoid their operation. Some of the most objectionable classes are securing cabin transportation to escape the vigilant inspection exercised over the steerage—a fact which points to the necessity of requiring from steamship companies complete manifests of all foreign passengers, whether traveling first or second class or in the steerage. Others gain admission by booking on board ships as seamen merely to be discharged at American ports and landed by foreign consuls, in accordance with the laws of navigation and treaty agreements between the United States and their respective countries. A more flagrant abuse is the fraudulent securing of naturalization papers by persons who then claim the custody of their alleged families, such action being taken after the latter had been refused a landing because they belonged to some class expressly excluded by law. Instances of this kind caused trouble repeatedly during the past year.

It is recommended by the Commissioner of Immigration that an alien on landing be required to state whether it is his ultimate intention to renounce allegiance to his own country; his affirmative answer to this question to be entered of record and used at the expiration of five years' residence in verifying his asserted right to naturalization. Canada continues to present an open door for the return of aliens who have been excluded from the United States. Contract laborers enter our ports alleging that their destination is Canada, travel thither, and immediately return across the boundary. In addition to this fraudulent practice, our people are subjected to still more injurious foreign contact, for there is practically no rejection of diseased persons at Canadian ports. The only remedy for these evils appears to be the withdrawal of our officials from these ports, to locate them at certain selected points along our northern boundary, through which border stations alone should aliens be admitted. A similar carelessness or incompetence in the medical inspection maintained at transatlantic ports has resulted in the embarkation for the United States of a number of diseased immigrants (most notably those afflicted with contagious trachoma or granulated eyelids), and request has been made that surgeons of the United States Marine-Hospital Service, whose ability and energy in maintaining a strict quarantine have been thoroughly tested during seasons of dangerous epidemics, be sent abroad to examine into the physical condition of foreigners desiring to come to this country.

The annexation of Hawaii without a previous change in the municipal legislation of those islands except the extension thereto of the Chinese-exclusion act threatens to complicate further the work of regulating immigration to this country. It has been ascertained that since July 7, 1898, 25,000 Japanese have been brought to Hawaii under contract to work on the sugar plantations; and it is asserted that members of the Territorial Government have been making arrangements with the officials of Italy for an unlimited importation of Italian peasants. This indiscriminate introduction of the lowest class of aliens into a Territory of the United States is a menace to our people which fills the Immigration Bureau with grave apprehension, and it asks to be authorized to examine and reject, at its discretion, all foreigners coming to our shores from Hawaii, although they may claim to be residents of that Territory. Cuba, Puerto Rico,

and the Philippines are already subjected to immigration regulations under military authority, and it is believed that no embarrassment will arise in the handling of immigrants therefrom when civil governments have been established in those islands.

INDIA, an empire in southern Asia, under the sovereignty of the Queen of Great Britain and Ireland on the basis of a personal union, and governed under general acts of the British Parliament by a Governor General in consultation with and under instructions from the Secretary of State for India in the British Cabinet. The Governor General, or Viceroy, is advised by a Council of 5 ordinary members, besides the commander in chief of the forces, who are appointed for five years. The Legislative Council, which is composed of the members of the Governor General's Council and 16 additional members appointed by the Governor General on the recommendation of certain public bodies, has power to make laws, subject to the approval of the Governor General and the Secretary of State, for all persons within British India, for all British subjects in the native states, and for native Indian subjects of the Queen in all parts of the world. British India is divided for purposes of administration into the presidencies of Madras and Bombay, each of which has a Governor, the lieutenant governorships of Bengal, the Northwest Provinces and Oudh, the Punjab, and Burmah, and the chief commissionerships of Assam and the Central Provinces. Each of the governors and lieutenant governors has his Legislative Council, those for the Punjab and Burmah having been established in 1898.

The Governor General is George Nathaniel Curzon, created Baron Curzon of Kedleston, who was appointed to succeed the Earl of Elgin in September, 1898. The members of the Supreme Council in the beginning of 1899 were Sir James Westland, M. D. Chalmers, Major-Gen. Sir E. H. Collen, Sir A. C. Trevor, C. M. Rivaz, and C. E. Dawkins. The commander in chief of the forces was Gen. W. G. S. Lockhart. Sir A. E. Havelock was Governor of Madras, Lord Sandhurst Governor of Bombay, Sir John Woodburn Lieutenant Governor of Bengal, Sir A. P. MacDonnell Lieutenant Governor of the Northwest Provinces and Oudh, Sir W. M. Young Lieutenant Governor of the Punjab, and Sir F. W. R. Fryer Lieutenant Governor of Burmah.

Area and Population.—British India comprises Bengal, with Orissa, Behar, and Chota Nagpur; Bombay and Sind, with Aden; Madras; the Northwest Provinces and Oudh; the Punjab; Lower and Upper Burmah; the Central Provinces; Assam; the minor provinces of Ajmere-Merwara, Coorg, British Baluchistan, and the Andaman Islands; and the Berars, temporarily under British administration. The total area is 964,993 square miles, and the population in 1891 was 221,172,952, of whom 112,542,739 were males and 108,630,213 females. The native states under British control are Hyderabad; Baroda; Mysore, restored to native rule in 1881; Kashmir; the Rajputana states, chief of which are Udaipur, Jodhpur, Bikaner, Jaipur and its feudatories, Bhartpur, Dholpur, Alwar, Jhalawar, Tonk, and Kotah; the Bombay states, of which the principal ones are Cutch, Kholhapur and dependencies, and Khairpur in Sind; the Madras states of Travancore and Cochin; Bastar and other states in the Central Provinces; the Central India states of Indore, Rewa, Bhopal, Gwalior, and minor states; Kuch Behar, Hill Tipperah, and numerous other Bengal states; Rampur, Garhwal, and other

states in the Northwest Provinces; the Punjab states of Patiala, Bahawalpur, Jind, Nabha, Kapurthala, Mandi, Sirmur, Maler Kotla, Faridkot, Chamba, Suket, Kalsia, and others; Sikkim; and the Shan States of Burmah. The total area of the native or feudatory states is 594,610 square miles, and their population in 1891 was 65,950,398, of whom 34,184,557 were males and 31,865,922 females. This does not include tribes on the frontiers of Sikkim, Burmah, the Shan States, Rajputana, and British Baluchistan, among which a population of 607,710 was enumerated. Nepaul, where the Gurkha troops are enlisted for the Indian army, is an independent state in which the British refrain from interfering, having an area of 54,000 square miles and a

different languages and dialects are spoken, is ethnically divided into 195,460,000 Aryo-Indians, 52,960,000 Dravidians, 7,290,000 Tibeto-Burmans, 2,960,000 Kolarians, 1,330,000 Iranians, and 27,000,000 others, including 400,000 gypsies, 710,000 Sinites, 230,000 Annamites, 180,000 Khasis, 180,000 Shans, 50,000 Semites, and 250,000 Europeans. The principal languages are Hindu, spoken by 85,680,000 persons; Bengali, spoken by 41,340,000; Telugu, spoken by 19,800,000; Marathi, spoken by 18,890,000; Punjabi, spoken by 17,720,000; Tamil, spoken by 15,230,000; Gujarati, spoken by 10,620,000; Kanarese, spoken by 9,750,000; Uriya, spoken by 9,010,000; Burmese, spoken by 5,560,000; Malayalam, spoken by 5,430,000; Urdu, spoken by 3,670,000; Sindhi, spoken by



GATEWAY OF THE GREAT MOSQUE AT AHMEDABAD.

population variously estimated between 2,000,000 and 5,000,000. Bhutan is another of the Himalayan states which are politically independent, although subsidized and controlled by the Indian Government. The Ameer of Afghanistan also receives a subsidy and is controlled by the British as to his foreign relations. The total area of India, officially so designated, comprising the territories directly or indirectly under British rule, is 1,559,603 square miles; the total population, 287,123,350. This population, among which 118

2,590,000; and the Pahari, Santali, Assamese, Gondi, Marwadi, Pushtu, Karen, Kol, Tulu, Kachhi, gypsy, Oraon, Arrakanese, and Kond. The English-speaking population was 238,499, of whom 100,551 were British born. As to religion, the Indian populations comprised 207,732,000 Hindus, 57,321,000 Mohammedans, 9,280,000 Animists, 7,131,000 Buddhists, 2,284,000 Christians, 1,908,000 Sikhs, 1,417,000 Jains, 90,000 Parsees, 17,000 Jews, and 43,000 others. The classification of the population of India according to occupa-

tions showed that 171,735,000 were dependent on agriculture, 25,468,000 on earth work and general labor, 14,576,000 on the preparation and sale of food, drink, and stimulants, 12,611,000 on making textile fabrics and dress, 11,220,000 on personal, household, and sanitary services, 5,672,000 on the learned and artistic professions, 5,600,000 on service in the state and local administrations, 4,686,000 on commerce, 4,293,000 on working in wood, cane, and matting, 3,953,000 on transportation and storage, 3,821,000 on working in metals and precious stones, 3,646,000 on provision and care of cattle, 3,522,000 on light, firing, and forage, 3,285,000 on working in leather and horn, making boxes, etc., 2,361,000 on making glass, pottery, and stoneware, 1,438,000 on building trades, 1,155,000 on producing articles of supplementary requirement, 664,000 on military and naval defense, 500,000 on the service of foreign states, 392,000 on the gathering and preparation of drugs, dyes, gums, etc., 147,000 on vehicles and vessels, 141,000 on sport and amusements, 1,563,000 on undefined and disreputable callings, and 4,774,000 on their independent means. The registration of vital statistics is attempted throughout British India, though in some of the provinces the records are very imperfect. The official reports for 1896 show a birth rate per 1,000 of 43 in the Punjab, 38.03 in Bengal, 36.76 in Bombay, 34.5 in the Northwest Provinces and Oudh, 33.69 in Assam, 32.27 in Lower Burmah, 31.72 in the Central Provinces, and 29.9 in Madras. The death rate was 49.31 in the Central Provinces, 36.33 in Assam, 34.17 in Bengal, 33.32 in the Northwest Provinces and Oudh, 31.69 in Bombay, 31.5 in the Punjab, 23.63 in Lower Burmah, and 20.6 in Madras. The number of coolie emigrants in 1896 was 12,390, most of them bound for Demerara, Trinidad, Mauritius, and other British tropical colonies. The population of the principal cities of India in 1891 was as follows: Calcutta, 861,764; Bombay, 821,764; Madras, 452,518; Hyderabad, 415,039; Lucknow, 273,028; Benares, 219,467; Delhi 192,579; Mandalay, 188,815; Cawnpur, 188,712; Bangalore, 180,366; Rangoon, 180,324; Lahore, 176,854; Allahabad, 175,246.

Finances.—The revenue in 1897 was Rx 94,129,741, and the expenditure was Rx 95,834,763, of which Rx 69,600,508 were expended in India and Rx 26,234,255 in Great Britain. The loss by exchange was Rx 10,438,419, making the sterling expenditures in England £15,795,836, offset to the extent of £327,107 of receipts in England, on which the gain by exchange was Rx 216,163. The revenue collected by the Government of India was Rx 17,131,376, and expenses of the General Government were Rx 22,241,456; revenue of the Central Provinces Rx 2,178,831, and expenses Rx 1,768,753; revenue of Burmah Rx 5,883,624, and expenses Rx 4,222,271; revenue of Assam Rx 1,322,549, and expenses Rx 899,538; revenue of Bengal Rx 20,957,055, and expenses Rx 9,794,785; revenue of the Northwest Provinces and Oudh Rx 10,165,235, and expenses Rx 6,281,637; revenue of the Punjab Rx 8,042,650, and expenses Rx 4,874,948; revenue of Madras Rx 13,563,169, and expenses Rx 9,549,378; revenue of Bombay Rx 14,341,982, and expenses Rx 9,967,742. The land revenue, which was Rx 26,200,955 in 1896, declined, in consequence of famine, to Rx 23,974,489 in 1897, but recovered in 1898, in which year it was Rx 25,932,300, according to the revised estimates. The opium revenue has fallen, as a result of the extension of the poppy culture in China, from Rx 8,515,462 in 1888 to Rx 5,179,700 in 1898. The salt tax produced Rx 8,592,400 in 1898. The expenditure for the army has doubled since the

Indian mutiny, amounting in 1898 to Rx 27,073,000. Railroads, which cost Rx 22,801,300 to operate in 1898, yielded a revenue of Rx 22,167,300. The revenue of the post office, telegraphs, and mint was Rx 3,348,300, and the expense was Rx 2,878,000; the revenue of irrigation works was Rx 3,591,100, and the expense Rx 3,138,200. Civil salaries in 1898 amounted to Rx 15,721,300, and miscellaneous civil charges to Rx 5,724,500. The charges of collection were Rx 8,991,000. For famine relief and insurance Rx 5,414,200 were charged to that year. The result of the widespread famine and scarcity and of military operations on the northwest frontier was a deficit in the year's accounts of Rx 5,283,100. The cost of the famine to the Government, adding the loss of revenue to Rx 7,470,000 spent on famine relief in 1897 and 1898, is estimated at Rx 14,240,000, not including Rx 1,850,000 of suspended revenue and Rx 1,370,000 lent to cultivators for the purchase of seed. The budget estimate of revenue for 1899 was Rx 99,085,400, and of expenditure Rx 98,194,000. The land revenue was estimated at Rx 27,568,200; opium, Rx 5,329,800; salt, Rx 8,728,000; stamps, Rx 4,855,900; excise, Rx 5,717,300; provincial rates, Rx 3,860,000; customs, Rx 4,590,500; assessed taxes, Rx 1,892,900; forests, Rx 1,735,600; registration, Rx 462,200; tribute, Rx 919,400; interest, Rx 929,800; post office, telegraphs, and mint, Rx 3,203,900; civil departments, Rx 1,733,000; miscellaneous, Rx 918,600; railroads, Rx 21,823,600; irrigation, Rx 3,228,100; buildings and roads, Rx 678,700; military departments, Rx 909,900. The expenditures for interest on the debt were set down as Rx 3,378,600; refunds and compensations, Rx 1,880,100; charges of collection, Rx 9,330,800; post office, telegraphs, and mint, Rx 2,932,000; civil salaries, Rx 15,694,800; miscellaneous civil charges, Rx 5,777,600; famine relief and insurance, Rx 1,099,200; railroad construction, Rx 5,800; railroad revenue account, Rx 23,921,400; irrigation, Rx 3,213,100; buildings and roads, Rx 6,021,500; the army, Rx 25,055,900. The sum total is Rx 98,310,800, from which are deducted Rx 116,800 of expenditures from provincial balances. The famine grant of Rx 1,500,000 a year, to obtain which the salt duties and other taxes were increased, was diverted for many years to strategical railroads and other military purposes. The estimates for 1899 provide for the expenditure of the full amount under the head of famine relief and insurance and on railroads for the transportation of food supplies in times of scarcity. Extraordinary expenditures on railroads and irrigation not charged against revenue amounted to Rx 4,604,600 in 1898 and Rx 5,749,300 in 1899.

In the financial year ending March 31, 1899, the gold liabilities to England were reduced £2,695,000. There was a reduction of Rx 1,973,000 in the annual expenditure, and an increase of Rx 1,658,200 in the revenue. The year closed with the surplus of Rx 4,759,400, the largest ever realized. The land revenue, opium, the salt duty, customs, and other branches of revenue showed an unexpected and, after a famine, a remarkable improvement. For 1900 the revenue was estimated at Rx 62,477,000, and expenditure at Rx 58,544,400. The unremunerative debt of India at the end of 1899 amounted to only £31,689,000. The total public debt of British India on March 31, 1897, amounted to Rx 237,325,160, of which Rx 113,883,233 represent the permanent debt in England, Rx 109,115,053 the permanent debt in India, and Rx 14,326,874 the unfunded debt in India. The accounts for 1898 closed with a deficit of Rx 5,630,000, which was Rx 350,000 more than

was estimated at the beginning of the year. The ordinary revenue has improved in twenty years by Rx 13,800,000; the accounts for debt services, irrigation, and railway earnings by Rx 3,720,000, making the total improvement Rx 17,520,000, which has been absorbed by the loss of opium revenue, amounting to Rx 3,680,000; the loss by exchange, amounting to Rx 4,730,000; the army services, which cost Rx 5,470,000 more; the administration of Upper Burmah, costing Rx 450,000; and the charges of provincial administration, amounting to Rx 3,770,000. The drawings of the Secretary of State on India for 1899 were £10,000,000, the largest ever made. In 1900 he expected to draw £17,000,000. During 1899 the treasury received Rx 2,620,000 of gold in exchange for silver and placed in the reserve kept for the protection of the paper currency. The final estimate of the cost of the famine to the revenue of the Government, including both expenditure for relief and loss of revenue, was Rx 16,649,399, of which Rx 9,313,987 fell upon the year 1898. The cost of the frontier military operations was Rx 3,887,000.

The Army.—The European army in India in 1899 had an established strength of 3,616 officers and 70,672 noncommissioned officers and men, comprising 9 cavalry and 52 infantry general officers, 29 general officers unemployed, 914 officers in the staff corps, 5 officers and 9 men in the invalid and veteran establishments, 491 officers and 12,916 men of the Royal Artillery, 261 officers and 5,409 men of the cavalry, 347 officers and 158 men of the Royal Engineers, and 1,508 officers and 52,180 men of the infantry. The native army of British India had an established strength of 1,578 European officers, 3,209 native officers, and 135,853 noncommissioned officers and men, comprising 33 European and 54 native officers and 2,001 men in the artillery, 358 European and 619 native officers and 21,955 men in the cavalry, 65 European and 488 native officers and 3,142 men in the sappers and miners, and 1,122 European and 2,048 native officers and 108,755 men in the infantry. The total effective force was 219,369 officers and men, of whom 56,889 were in Bengal, 66,806 in the Punjab, 47,022 in Bombay, and 46,652 in Madras. The European and Eurasian volunteers in India numbered 29,570 on March 31, 1898. The imperial service troops, maintained by native princes and trained under the inspection of British officers, numbered 16,618 in 1898, consisting of 7,553 cavalry, 8,754 infantry, and 311 artillery. The coasts are defended by fortifications at Aden, Karachi, Bombay, the Hugli, and Rangoon, mounting modern breech-loading guns, built at a cost of Rx 4,500,000, and by the iron-clads *Magdala*, of 3,340 tons, and *Abyssinia*, of 2,900 tons, each carrying 4 8-inch guns in turrets, the *Lawrence*, of 1,154 tons, the torpedo gunboats *Assaye* and *Plassey*, of 735 tons, and 7 90-ton torpedo boats. A vast sum has been expended on the defenses on the northwest frontier, including the fortified camp at Quetta and the advanced position covering it, strategic railroads and wagon roads, protective works for bridges and tunnels on the Sind and Pishin Railroad and various other defenses for railroad bridges, the fortification of the passages over the Indus at Attok and Sukkur, an entrenched position at Rawal Pindi, a defensible post at Multan, an arsenal at Ferozepore, and other works.

Commerce and Production.—For the improvement of agriculture the Government has established in each of the provinces a public department which collects and publishes information concerning crops, conducts experimental stations

and model farms, imparts advice to private individuals who essay improved methods, introduces new cultures, processes, and appliances, organizes agricultural schools and colleges, and sends Indian students to the agricultural colleges of Europe. Experiments in the use of fertilizers, rotation of crops, the raising and storing of fodder, the cultivation of new products, the introduction of superior breeds of cattle, and the grading up of the native breeds of horses are beginning to bear fruit. Out of a total area of 732,506,734 acres shown by the survey department reports were made in 1897 respecting 537,346,026 acres, of which 153,895,056 acres were not available for cultivation, 63,969,955 acres were covered by forest, 95,080,728 acres were waste lands suitable for tillage, 46,943,358 acres were fallow land, and 177,456,929 acres were under crops. The area devoted to rice was 66,234,485; to wheat, 16,183,987; to other grains, 78,237,544; to sugar cane, 2,651,721; to tea, 423,932; to cotton, 9,458,942; to oil seeds, 10,531,864; to indigo, 1,583,808; to tobacco, 1,000,230; to jute, 2,215,105; to other fibers, 591,996; to various food crops, 6,017,127; to coffee, 147,158 acres. Double crops were grown on 22,904,618 acres, making the total area cropped 199,862,373 acres, of which 29,365,493 were irrigated by canals, tanks, wells, etc., counting twice the lands irrigated for both crops. The area served by the major irrigation works was 10,172,493 acres, paying Rx 3,386,183 for irrigation dues; the area served by minor works, 6,706,531 acres, paying Rx 1,786,658. The irrigation works paid 6.4 per cent. on their capital cost, and enabled crops to be grown of the estimated value of Rx 46,000,000.

The forests demarcated and reserved by the Government in 1897 had an extent of 19,259 square miles in the Central Provinces, 12,986 in Bombay, 14,068 in Burmah, 5,876 in Bengal, 13,138 in Madras, 3,822 in the Northwest Provinces and Oudh, 3,681 in Assam, 1,681 in the Punjab, and 4,179 in the Berars.

The number of cotton mills in operation in 1897 was 154, with 37,303 looms and 3,975,719 spindles, employing the average number of 148,997 persons. The jute mills numbered 31, with 12,784 looms and 258,154 spindles, employing 91,389 persons. There were also 5 woolen mills, with 548 looms and 19,856 spindles. The coal mines numbered 145, producing 4,063,127 tons in 1897, and giving employment to 59,859 persons.

The foreign trade of India has increased from Rx 14,342,290 in 1835 to Rx 198,972,505 in 1898, although, owing to famine and plague, exports, which in 1896 reached Rx 111,295,697, having doubled in twenty years, fell off 8.16 per cent. in 1897 and 3.80 per cent. in 1898. The value of imports in 1898 was Rx 94,191,077; of exports, Rx 104,781,428. The merchandise imports were Rx 73,660,460; imports of treasure, Rx 20,530,617; merchandise exports, Rx 97,632,781; exports of treasure, Rx 7,148,647. The imports of treasure consisted of Rx 7,281,222 of gold and Rx 13,249,395 of silver; exports of treasure, Rx 2,372,733 of gold and Rx 4,775,914 of silver. Excluding Government stores and treasure, the total value of imports was Rx 89,896,406, consisting of Rx 69,420,120 of merchandise and Rx 20,476,286 of treasure; exports, Rx 104,671,442, consisting of Rx 97,537,273 of merchandise and Rx 7,134,169 of treasure. Of the merchandise exports Rx 93,786,101 were domestic products and Rx 3,751,172 were re-exports of foreign merchandise. The share of Bengal in the trade, excluding Government stores, was Rx 31,301,745 of imports and Rx 46,312,032 of exports; of Burmah, Rx 5,866,397 of imports and Rx 6,006,

980 of exports; of Madras, Rx 6,745,010 of imports and Rx 11,468,961 of exports; of Bombay, Rx 40,972,117 of imports and Rx 33,262,251 of exports; of Sind, Rx 5,011,137 of imports and Rx 4,621,218 of exports.

The imports of live animals in 1898 were Rx 227,631 in value, and exports Rx 141,422; imports of articles of food and drink Rx 10,740,816, and exports Rx 25,068,456; imports of hardware and cutlery Rx 1,477,811, and exports Rx 18,070; imports of metals Rx 6,189,912, and exports Rx 120,595; imports of machinery Rx 2,861,108, and exports Rx 119; imports of railroad material Rx 2,876,451, and exports Rx 4,561; imports of chemicals, drugs, etc., Rx 2,060,544, and exports Rx 10,366,802; imports of oils Rx 4,148,566, and exports Rx 651,675; imports of raw materials Rx 2,828,688, and exports Rx 37,101,481; imports of textile yarns and fabrics Rx 28,950,314, and exports Rx 14,433,400; imports of clothing Rx 1,226,629, and exports Rx 164,136; imports of all other articles Rx 5,833,650, and exports Rx 5,715,384. The principal imports of private merchandise were cotton manufactures for Rx 26,395,008, metals, hardware, and cutlery for Rx 7,667,722, sugar for Rx 4,784,479, oils for Rx 4,146,566, railroad plant and rolling stock for Rx 2,876,451, machinery and mill plant for Rx 2,861,108, silk and silk manufactures for Rx 1,819,032, provisions for Rx 1,705,721, liquors for Rx 1,568,494, drugs and chemicals for Rx 1,292,938, woolen goods for Rx 1,148,427, salt for Rx 868,718, dyes and tans for Rx 767,606, spices for Rx 744,773, grain and pulse for Rx 610,792, glass for Rx 576,671, coal for Rx 537,352, umbrellas for Rx 335,374, and paper for Rx 332,047. The principal exports of private merchandise, the produce of India, were rice for Rx 11,705,842, raw jute for Rx 10,129,992, raw cotton for Rx 8,871,313, seeds (mainly oil seeds) for Rx 8,594,100, hides and skins for Rx 8,317,534, cotton manufactures for Rx 8,151,338, tea for Rx 8,058,623, opium for Rx 6,097,563, jute manufactures for Rx 5,930,856, indigo for Rx 3,057,402, coffee for Rx 1,519,130, wool for Rx 1,356,537, wheat for Rx 1,341,151, timber for Rx 1,079,061, lac for Rx 1,070,920, oils for Rx 651,675, provisions for Rx 531,667, raw silk and cocoons for Rx 514,850, dyes and tans for Rx 482,047, spices for Rx 471,628, saltpeter for Rx 398,745, sugar for Rx 292,453, wool manufactures for Rx 223,899, and silk manufactures for Rx 126,041. Of the rice exports Rx 6,950,861 came from Burmah, Rx 3,001,664 from Bengal, Rx 1,277,260 from Madras, and the rest from Bombay and Sind. Of the wheat exports Rx 1,091,284 came from Sind and the rest mainly from Bombay. Of the exports of opium Rx 3,893,956 came from Bengal and Rx 2,203,607 from Bombay. Of indigo Rx 1,755,104 came from Bengal, Rx 1,066,445 from Madras, and the rest from Bombay and Sind. Of the cotton Rx 6,321,196 came from Bombay, and the rest from Sind, Madras, and Bengal, except a small quantity from Burmah. Of seeds Rx 4,671,395 came from Bombay, Rx 2,964,179 from Bengal, and the rest from Sind and Madras. On rice Rx 723,731 export duties were paid in 1897. The import duties amounted to Rx 6,302,983, of which salt produced Rx 2,556,073. Of the total imports in 1898 the value of Rx 57,820,879 came through the Suez Canal, and of the exports Rx 57,186,788 in value passed through the canal. The share of Calcutta in the import and export trade of 1898 was Rx 71,994,608; that of Bombay, Rx 52,063,062; that of Rangoon, Rx 12,346,725; that of Madras, Rx 10,161,018; that of Karachi, Rx 9,228,432. The coasting trade amounted in 1898 to Rx 75,850,238

for imports and exports combined, exclusive of Government stores and Government treasure.

The values of the merchandise imports from and exports of Indian produce to the various countries in 1898 were as follow:

COUNTRIES.	Imports.	Exports.
Great Britain.....	Rx 46,608,323	Rx 29,196,201
China.....	1,691,012	12,092,642
Germany.....	2,434,519	7,181,595
United States.....	1,431,075	5,855,060
Straits Settlements.....	2,408,828	4,313,238
France.....	882,796	5,627,199
Belgium.....	2,284,839	3,027,958
Ceylon.....	1,071,143	3,997,789
Japan.....	534,519	4,157,961
Austria-Hungary.....	2,146,793	2,101,359
Egypt.....	190,828	3,947,389
Italy.....	499,163	2,674,156
Mauritius.....	1,668,071	1,124,202
Russia.....	2,060,756	109,057
South America.....	554	1,712,047
Australia.....	334,430	1,235,866
Arabia.....	499,471	864,318
Persia.....	691,912	141,956
East Africa.....	198,908	755,390
Netherlands.....	286,089	298,934
Spain.....	14,020	250,908

The overland trade, which is not included in the statistics already given, is considerable, and is growing in importance. The value of the imports of merchandise by the land frontiers in 1898 was returned as Rx 5,022,500, and that of the exports by land as Rx 9,101,400. The largest trade is with Nepal, amounting to Rx 1,914,200 of imports and Rx 1,491,400 of exports, after which come Kashmir, with Rx 769,700 of imports and Rx 560,100 of exports, and then the Shan States, Kandahar, Kabul, Bajaur, China, Tibet, Karenni, Zimme, Khelat, Lus Bela, Sewestan, Ladakh, and Siam.

The foreign trade of India in 1899 showed a remarkable recovery from the depression of the preceding two years. The exports, including treasure, exceeded Rx 120,000,000, the largest figure ever attained, and the imports amounted to Rx 90,000,000, which had only been twice exceeded. The surplus of Rx 30,000,000 had only been exceeded in three previous years. The net imports of treasure were Rx 10,484,192, of which Rx 6,500,000 represented gold, the highest amount of this metal ever absorbed by India in a year.

A bill imposing a duty on bounty-fed sugar imported into India was introduced in the Legislative Council on March 10, 1899. The sugar industry of India, in which 2,000,000 people are engaged, and which has yielded a crop worth £20,000,000, has declined in consequence of the unrestricted importation of beet sugar from Europe, which has been sold at a lower price than the normal cost of production of the Indian cane sugar. The Legislative Council unanimously passed the bill on March 20. In the British House of Commons a motion calling upon the Imperial Government to disallow the act was lost by a majority of 293 to 152. Numerous refineries had already been closed, and the area of production reduced 9 per cent. in the two years immediately preceding the recent increase of the bounties in France and Germany, which threatened to have a still more disastrous effect on the industry. Imports of beet sugar into India increased between 1895 and 1898 from 250,000 to 8,000,000 hundredweight as the result of doubling the bounties in 1896. Mauritius had felt the effect of the action of the Continental governments even more severely than the sugar-growing districts of Madras, northern India, and Bengal. The bill was framed on the lines of the United States tariff act of July, 1897, imposing a countervailing duty on sugar coming

from countries granting bounties. The Indian Government urged its claims for consideration on the Brussels sugar conference of 1898, where its views were opposed by the representatives of Russia and France. The new duty, unlike the salt tax, will fall mainly on the well-to-do, who are the only consumers of refined sugar in India. The agriculturists prepare their sugar for their own use, and the poorer classes everywhere prefer to use the cheap raw sugar to which they have been accustomed from time immemorial. The duty is imposed on all sugar from countries giving bounties, whether imported directly from the country of production or through other countries, and even when changed in condition by manufacture in another country. The Austrian Government protested against the Indian countervailing duty as opposed to the provisions of the most-favored-nation treaties, inasmuch as the duty would vary in proportion to the bounty, and thus cause unequal duties to be imposed on imports from different countries. Lord Salisbury, while admitting that the right of imposing countervailing duties was a matter of controversy, pointed out that when the American Government took similar action none of the states affected maintained their opposition, and pleaded that India was specially justified in the circumstances in which the industry of that country was placed.

After one season of good crops, a failure of the rainfall in 1899 again caused great scarcity of food in many parts of India, and actual famine in an area containing about half as large a population as was affected by the failure of the monsoon in the autumn of 1866. The famine-stricken districts in 1897 comprised 260,000 square miles, containing a population of 70,000,000, though in about half of this area, with two thirds of the population, the famine was not severe. The deficiency in the food crops was about 18,000,000 tons of grain, the value of which was estimated at Rx 90,000,000. The losses of other crops amounted to about Rx 20,000,000 more. The expenditure of the Government for relief was Rx 19,000,000. The failure of crops in 1899 extended over 100,000 square miles in British territory, with a population of 15,000,000, and 250,000 square miles of native territory, containing 15,000,000 population. This area included five sixths of the Central Provinces and the southeastern part of the Punjab—districts where the agricultural population was still suffering from the depression caused by the previous famine. Bengal, half of the Northwest Provinces and Oudh, and the Burmah, Madras, and Mysore regions, including the most densely inhabited and highly cultivated tracts in India, suffered from no shortage of crops, although the pressure of high prices bore upon the laboring and city populations. The southern Mahratta districts, the south of the Deccan, the greater part of Hyderabad, the main districts in Central India, the western half of the Northwest Provinces, and the northern part of the Punjab suffered a marked deficiency, though nowhere was there a complete failure of crops. The total area affected seriously was half as large in British dominions, and the population only a third as great as in 1897. In the native states, however, the area of grave distress was more than three times as great, with more than twice the population. In Rajputana the people were threatened with a more serious situation than any that had occurred since the famine year 1860. The food stocks in all India were estimated to be sufficient for the requirements of the country until the rains should be due in July, 1900, and considerable quantities of foreign wheat were

delivered at Calcutta as soon as the prices reached the scarcity stage. The Government took more timely precautions than in 1896. The system of relief by means of poorhouses, doles, famine works, etc., was promptly set in operation. The Government promised also advances to agriculturists and remission of rent.

Navigation.—The total number of vessels in the foreign trade entered at British Indian ports during the year ending March 31, 1898, was 4,975, of 3,917,761 tons, of which 1,984, of 3,127,061 tons, were British, 946, of 142,882 tons, British Indian, 1,419, of 75,772 tons, native, and 626, of 572,046 tons, foreign. The total number cleared was 4,784, of 3,866,869 tons, of which 1,964, of 3,087,527 tons, were British, 923, of 138,500 tons, British Indian, 1,332, of 74,919 tons, native, and 565, of 565,923 tons, foreign. The total number of steamers entered was 578, of 1,454,321 tons; cleared, 758, of 1,790,223 tons. The number of vessels entered with cargoes in the interportal trade was 91,522, of 10,479,527 tons; cleared, 86,660, of 10,523,910 tons.

Railroads, Posts, and Telegraphs.—The total length of railroads in India on March 31, 1898, was 21,157 miles, of which the Indian Government owned 15,584 miles, native states 2,018 miles, foreign governments 73 miles, guaranteed companies 2,588 miles, and assisted companies 894. The State Railway Agency operated 5,307 miles, of which 5,161 miles belonged to the Government and 146 miles to native states; and the states operated 954 miles of their lines, while companies operated 10,422 miles of the lines belonging to the Indian Government and 919 miles belonging to the native states, besides 3,483 miles of their own, making 14,824 miles in all. The capital expenditure, including unfinished lines, surveys, and coal mines, was Rx 285,211,784, of which total the Indian state railways represent Rx 170,421,746, the state lines leased to companies Rx 38,224,662, guaranteed railways Rx 50,709,764, assisted companies Rx 10,921,414, native state lines Rx 12,385,252, foreign lines Rx 1,750,179, surveys Rx 491,196, and collieries Rx 307,571. The gross receipts of all the railroads for 1897 were Rx 25,595,169, of which Rx 8,858,875 came from 151,263,816 passengers and Rx 15,875,883 from 33,698,617 tons of freight carried. The working expenses were Rx 12,511,163, being 48.88 per cent. of the gross earnings, leaving Rx 13,084,006 for the net earnings, which gave an average return of 5.04 per cent. on the capital expended on lines in operation.

The number of letters, postal cards, and money orders that passed through the post offices of British India during 1897 was 397,897,840; the number of newspapers, 20,778,291; of parcels, 2,708,709; of packets, 19,341,398. The receipts were Rx 1,783,473; expenses, Rx 1,698,156.

The Government telegraph lines on March 31, 1897, had a total length of 48,584 miles, with 148,136 miles of wire. The number of messages sent during the year was 5,077,584. The receipts were Rx 1,071,524; expenses, Rx 946,759.

Adoption of the Gold Standard.—The Indian Currency Committee appointed in 1898 gave in its report to the Secretary of State early in July. Gold was accepted by the Government in payment for public dues, but the rupee was by law the only legal tender. There was no legal relation between rupees and gold, although the Government had declared until further notice a rate at which rupees could be purchased for gold coin or bullion, and this rate of 1s. 4d. for the rupee served to determine the maximum limit to which under that arrangement sterling exchange could

rise. The committee concurred in the decision of the Government of India not to revert to the silver standard. The policy of declaring in favor of the reopening of the mints to silver when circumstances indicate it as advisable, continuing meanwhile the existing arrangements, would rest on the hope of a rise in the gold price of silver or a fall in the rate of sterling exchange; but its adoption could only be justified by a belief that it would be advisable to return to silver monometallism. As to the possibility of an international agreement on a ratio, the governments concerned had made no fresh proposals since the negotiations of the United States and France with Great Britain in 1897 proved fruitless. The numerous persons in India who desired a lower rate of exchange than 1s. 4d., and would fix the rupee at 1s. 3d. or 1s. 2d., base their opinion on a belief that such lower rate would stimulate production and the export trade. Any stimulus derived from a falling rate of exchange would, however, prove but transitory, and could only continue until circumstances brought about the inevitable adjustment. A steady exchange is indeed more favorable to the export trade than a rapidly falling exchange. The committee found no statistical support for the theory that exports are largely and permanently stimulated by a depreciation in the standard of value, resulting in a fall in exchange. Robert Campbell and Sir John Muir dissented from the other members of the committee in so far as they believed that the experience of six years had not sufficiently justified the adoption of the 1s. 4d. rate of exchange, which represents the ratio of 22 to 1. The only practical alternative at the present time to silver monometallism the committee found to be the gold standard—that is, gold as the measure of value in India, either with a gold currency or a gold reserve. Over 80 per cent. of the foreign trade of India is with countries having the gold standard. A further important consideration for a country like India is that a gold standard is the simplest and most efficacious means of attracting foreign capital. India needs capital from abroad for the purpose of developing her productive resources, and she needs also a periodic inflow of money every year for the purpose of moving the crops, the want of which is seen from the fluctuations of discount rates at different seasons, the variations reaching 7 per cent. or more every year. A gold standard is the only means, in the opinion of the committee, by which these benefits can be obtained in present conditions, but its effective establishment would not preclude India hereafter from considering responsible proposals for an international agreement. The undertaking of the Government to give rupees for gold at the rate of 16d. had practically the result of making gold a legal tender, and of fixing a stable rate of exchange and attracting a stock of gold amounting already to over £2,000,000, which was held as a reserve against the paper currency. A growth of confidence resulting from the definite adoption of the gold standard would tend to produce greater results in the future. Unless the Government was empowered to pay out gold in cashing its notes or meeting other liabilities, it could not go on receiving it into the paper-currency reserve or the treasury. It seemed urgent to the committee that steps should be taken to avoid all possibility of doubt as to the determination not to revert to a silver standard, but to proceed with measures for the effective establishment of a gold standard. The proposals of the Indian Government did not commend themselves to the committee. The danger

of the withdrawal of gold by the natives for hoarding did not appear to the committee to present such practical difficulties as to justify a permanent refusal to allow India to possess the normal accompaniment of a gold standard—namely, a gold currency. The committee was in favor of making the British sovereign a legal tender and current coin in India and of throwing open at the same time the mints of India to the unrestricted coinage of gold on the same terms and conditions as those governing the Australian branches of the royal mint. The result would be that the sovereign would be coined and would circulate both in Great Britain and India, and there would be an effective gold standard and a free inflow and outflow of gold. The committee did not recommend these measures for immediate adoption, and considered that for some time to come it would not be advisable to limit the legal tender of rupees in discharge of debt. The gold reserve should be freely used for remittances when exchange falls below specie par, as this is its principal use; and the Government of India should make its gold available for this purpose whenever the necessity arises, under such conditions as circumstances may render desirable. If exchange shows a tendency to fall below the specie point, the Government might remit gold to England, the India bills of the Secretary of State being correspondingly reduced; and when it has accumulated a sufficient reserve it might discharge obligations in India in gold. The exclusive right to coin rupees must remain vested in the Government of India, which should continue to give rupees for gold, but should not coin fresh rupees until the proportion of gold in the currency is found to exceed the requirements of the public. The committee recommended also that the profit on the coinage of rupees should not be credited to the revenue or held as an ordinary balance, but should be kept in gold as a special reserve apart from the paper-currency reserve. The committee recommended the retention of the 16d. rate instead of a lower one or a higher one, not because it is indicated on any theoretical grounds, but because the business world has accepted this provisional rate as the permanent rate at which the Indian monetary standard is to be transferred from a silver to a gold basis, and because prices have adjusted themselves to that ratio and it is the one on which debts have been contracted. For the speedy attainment of an effective gold standard it is considered desirable that the Government of India shall husband its resources, exercise strict economy, and restrict the growth of its gold obligations. E. A. Hambro thought that the establishment of a Government bank would facilitate the carrying out of the policy recommended. W. H. Holland advised making no change until the provisional arrangement had been tested further. Robert Campbell and Sir John Muir joined him in appending to the report a warning against borrowing in sterling either for the establishment or the maintenance of a gold standard, and incurring a load of debt and its consequent addition to the home charges, only to find, perhaps, that an impracticable scheme had been pursued which, when left to its own merits, must break down.

The Government adopted most of the recommendations of the committee. The bill introduced in the Legislative Council on Sept. 8 made the sovereign legal tender in India, and provided for the striking of gold coins in the Indian mints, which were proclaimed a branch of the royal mint of Great Britain. The rupee was fixed at

1s. 4d. Clinton Dawkins, the financial member of the Viceroy's Council, disclaimed any hostility to silver, and the Viceroy argued that only with a gold standard could India enter upon a discussion of international bimetalism upon equal terms with foreign powers. The Government accepted no obligation to exchange gold for rupees. The rupee currency should expand in response to trade demands, as the exchange of rupees for gold would render the currency more elastic and could have no tendency to produce a monetary stringency, although there might be a stringency of loanable capital. The Secretary of State, in accepting generally the committee's recommendations and communicating the decision of the British Government in favor of acting on the principles recommended, impressed upon the Indian Government the advisability of making the gold reserve freely available for foreign remittances whenever circumstances render it desirable.

The people of India of all classes and the English who are engaged in tea planting or other productive industries opposed the closing of the mints in 1893 to silver, the adoption of the rate of 1s. 4d., and the final adoption of the gold standard. The gold-standard party in India consisted of the foreign merchants, who were exasperated by the fluctuations in exchange, and the Anglo-Indian officials, who receive their salaries or part of them in rupees. When the value of the rupee began to deviate considerably from the old rate of 2s. the Government decreed that the salaries and pensions of the higher officials should continue to be paid at that rate in gold; those of the intermediate officials half in gold, representing their savings and remittances to their families in England, and half in silver, answering for their expenses in India; while the lower grades of officials, Anglo-Indian, Eurasian, and native, whose expenditures were confined to the country, received their salaries in silver rupees, which came to be worth half as much in gold as they had formerly been. The Government itself became most anxious to arrest the fall of the rupee, because its downward movement disturbed all financial calculations by the constantly growing item of loss by exchange on the remittance of £15,000,000 to £18,000,000 sterling to England every year. These home charges represented partly the pensions, civil and military, that had been made payable in pounds sterling instead of in tens of rupees, but to a greater extent the debts contracted in England to cover budget deficits, to build railroads, and for other purposes, all of which are payable in gold. The India of the Indians, on the other hand, prospered on the cheap rupee, and built up a grain-export trade, a cotton industry, and many other thriving branches of commerce and enterprise. The royal commission that was appointed in 1895 to inquire into the expenditure of the Government of India, owing to a hopeless disagreement among its members or to some other cause, adjourned its proceedings in July, 1897, and neither made a report nor gave any other sign of existence.

New Frontier Policy.—The Mad Fakir, whose followers caused serious disturbances in the upper Swat valley, occupied in December, 1898, the crest of the watershed overlooking the valley of the Panjkora. He came in contact there with the forces of the Nawab of Dir, which were barring his advance into the valley. The Azi Khel *Jirgah*, an influential clan inhabiting the extreme eastern portion of the upper Swat valley, gave pledges to support the Government and to exert influence on the other clans in the upper valley to help in expelling the Fakir from the country.

Fighting occurred in the Sebuji valley, where the Fakir was besieged by the men of the Dir tribe, who attacked his fort, which he abandoned, crossing into the upper Swat valley again and returning to his former stronghold at Pitai, where he had between 300 and 400 men who remained true to him. Gen. A. Reid's movable column was then encamped at Chakdora. It moved 7 miles up the valley, and made a camp near Landikai. To reassure the inhabitants, a regiment of Bengal lancers patrolled the upper Swat valley. The Fakir also made visits to the different tribes of the valley, and endeavored to get them to join his standard so as to preserve their country from British occupation. The Azi Khels, however, were kept loyal by the exertions of the British officers, and they not only refused to allow him to enter their country, but marched out against him and pursued his force into the Jinki Khel territory, where his fortress of Pitai was situated. They even induced a section of the Jinki Khels to withdraw their support from the cause of the Mad Fakir. This reduced his influence to insignificance. The Khani Khels of the Chamkanni tribe made a raid in the Kurram valley in February, 1899. A detachment of troops under the political officer inflicted reprisals by destroying villages and seizing cattle. The fortification of the Khaibar pass was not proceeded with on the original extensive plan, because Lord Curzon's Government decided to withdraw the garrison of British troops and leave the Khaibar rifles to defend the pass, keeping troops in readiness at Peshawur to march up if these should be faithless or prove insufficient to hold it against outside foes. The usual reliefs were not sent to the forts at Chitral in the spring. The Government decided to reduce the garrison and the defensive works to be held. The incursions of the Waziris and of Afghans into the Kurram valley led to a punitive column being sent in May. The new frontier scheme adopted by Lord Curzon relative to the Khaibar involved the abandonment of the projected railroad through the pass. On the Samana and in the Kurram the new frontier policy was adopted also. English garrisons were withdrawn, and the defense of the frontier was left to native militia under British officers. The Indian press praised the new policy not only as immediately reducing frontier expenses, but as calculated to conciliate the tribes and avert the dangers that had resulted before from irritating the independent hill peoples. When Lord Curzon arrived in India the Government was committed to a policy involving the construction of large fortifications and the maintenance of the existing garrison in Chitral; to making a new fort at Landi Kotral and fortifying other positions in the Khaibar, and building a railroad into Afghanistan through this pass; to considerable expenditure on forts and garrisons on the Samana range; to maintaining a large garrison of regular troops in the Tochi valley; to establishing a central station at Miran-shah and placing garrisons in fortified posts at various points in this section of the border; and to maintaining a regular garrison at Wana for the purpose of guarding the Gomal route and Waziristan. The measures adopted after Lord Curzon had examined the situation involved a wide departure from the plans of his predecessor. It was decided to maintain only the escort of the political officer in the fort at Chitral, and, instead of extending the fortifications there, to remove the garrison to Drosh, building a fort there to dominate the Dir country. By securing the co-operation of the Mehtar of Chitral, his levies

would be trusted to guard the posts and bridges from the Lowari to Chitral, while an alternative line of communication is obtained by improving the road leading into Chitral from Gilgit. The Nowshera Railroad is being completed from the left bank of the Kabul river to Dargai, and the gauge of this and of all the light railroads to the frontier has been changed from 2 feet to 2 feet 6 inches. These light railroads are expected to give the troops sufficient mobility to protect the frontier without locking them up in detached garrisons far from their base, as the other plan involved. In the Tochi valley a Waziri militia will be employed, which can be controlled by movable columns at Bannu and Dera Ismail Khan. Waziri militia will also hold all the posts occupied hitherto by regulars in northern Waziristan. A standard-gauge railroad is being built up to the base at Jamrud. Railroad communication with Kohat will be established as soon as practicable. All the cantonments still retained among the frontier tribes will be connected by railways as far as possible with their military bases. An old feud between the Khan of Nawagai and the Mamunds of Bajaur, supported by the Khan of Dir, was composed in July by the intervention of the British political agent.

Internal Affairs.—The secret society that incited the Poona murders in 1897 gave evidence of its vitality by murderous attacks on police officers early in 1899. Fresh prosecutions of Maharashtra newspapers under the new press law were undertaken in consequence of their unabated seditious tone. The most serious and inflammatory attacks on the Government were disguised in allegorical and poetical forms or in ethical disquisitions as to how rulers with the guilt of murder on their souls could mete out justice to others, or what allegiance is due to robbers turned kings or to kings who have usurped the dominion of others, or pointing out the fate of former usurpers and conquerors.

In Tinneveli and Madura differences between Hindu castes led in June to riots, in which villages were burned and many persons murdered. It arose from the attempt of the Maravars, a Dravidian caste of warriors and husbandmen, to exclude the Shanars, whom they held to be unclean, from the temples. When the deputy magistrate, a Mohammedan, decided in favor of the Shanars, the Maravars and Kullars attacked their villages in the two districts and in British Travancore, and were not stopped in their pillage, destruction, and violence until the troops arrived and took about 1,000 prisoners. The Shanars, whose chief occupation is making toddy from palm juice, have aspired, since many of them have been converted to Christianity and educated, to the same privileges accorded to other classes, which were therefore incited to suppress their social insubordination with the barbarity natural to them. After the disturbances were over a large number of the Shanars adopted the Mohammedan religion.

The feelings of the Burmese community were outraged by the mildness of the punishment inflicted by regimental officers on British soldiers who had committed a dastardly crime upon a respectable native woman. The Government rectified the error by revising the sentence and court-martialing the officers who were responsible.

The policy of stamping out the bubonic plague by segregation, sanitary cordons, and violent repressive measures that arrested trade and industry and wrought up the Hindu and Mohammedan communities to the point of insurrection by violating their family privacy and social and re-

ligious customs was not even successful from a sanitary point of view. The deaths in Bombay city from the epidemic during the second outbreak in 1898, when these thorough methods were applied, rose to 28,000, while during the outbreak of 1897, when the municipality and the health officials were allowed to employ the usual precautions against the spread of epidemics, such as cleansing and disinfection, the number of deaths was 22,700. The special plague commission which took control in 1898, having found the thorough policy of no avail, reverted to milder plague measures in 1899 when the third outbreak occurred, and the deaths in Bombay fell to 21,000. In Calcutta the Government prepared for the coming of the epidemic by flushing the sewers and cleansing the most unwholesome and overcrowded quarters. Inspection stations on the railroad lines prevented the entrance of the disease through infected persons as long as possible, but at last the disease made its appearance in the capital. The rigorous measures employed at Bombay were not adopted, and yet the epidemic was kept within moderate limits. Attention was given to preventing its dissemination among the villages, though without recourse to the wholesale detentions and inspections that produced panic and riot in Bombay province. Persons suffering from plague were not allowed to leave Calcutta by railroad or steamer, but no one was detained without distinct proof. The study of the disease has led to the conclusion that rats are a common vehicle for the incubation and communication of the germs. The removal of persons exposed to infection to camps in the open country is the precaution that has been found to be most efficacious, and it has been applied on an enormous scale in Bombay. The evacuation of villages after the plague had entered was the most efficacious measure, and in every instance it proved successful in Bombay and the Punjab at every season of the year. The Indian authorities have concluded that the plague can not be eradicated by forcible sanitary measures, but will continue in India, with the usual decline in the hot season. The means of protection can only be partial, and they must be evolved, as in the case of cholera, from experience.

INDIANA, a Western State, admitted to the Union Dec. 11, 1816; area, 36,350 square miles. The population, according to each decennial census since admission, was 147,178 in 1820; 343,031 in 1830; 685,866 in 1840; 988,416 in 1850; 1,350,428 in 1860; 1,680,637 in 1870; 1,978,301 in 1880; and 2,192,404 in 1890; estimated from the school enumeration of 1899 it is 2,645,138. Capital, Indianapolis.

Government.—The following were the State officers in 1899: Governor, James A. Mount; Lieutenant Governor, W. S. Haggard; Secretary of State, Union B. Hunt; Treasurer, Leopold Levy; Auditor, William H. Hart; Attorney-General, William L. Taylor; Superintendent of Instruction, F. L. Jones; Adjutant General, J. K. Gore; Statistician, John B. Conner; Geologist, Willis S. Blatchley; Commissioner of Insurance, C. W. Neal; Commissioner of Public Lands, L. G. Rothschild; Labor Commission, B. F. Schmid; L. McCormack; Factory Inspector, D. F. McAbee; Fish and Game Commissioner, Z. T. McSweeney; Tax Commissioners, T. B. Buskirk, J. C. Wingate; Supervisor of Natural Gas, J. C. Leach; Mine Inspector, Robert Fisher; Chief Justice of the Supreme Court, Leander J. Monks; Associate Justices, James H. Jordan, Alexander Dowling, J. V. Hadley, Francis E. Baker; Clerk, Robert A. Brown—all Republicans.

Finances.—The total receipts of the State treasury in the year ending Oct. 31 are shown by the annual report to have been from all sources \$7,121,149.31, and the total disbursements \$6,976,599.41. There was a balance in the treasury Nov. 1, 1898, of \$550,775.75, the balance this year being \$695,335.65. In June the receipts amounted to \$2,329,885.19, the largest of any month in the year. The State debt was reduced by \$612,000.

The valuation of real estate for assessment was placed by the county boards at \$1,175,906,247, and was increased by the State board \$6,224,432. The assessment valuation of railroads was \$153,693,506; of telegraph and telephone companies, \$4,382,047; of sleeping-car companies, \$393,084; of express companies, \$1,811,395.

Education.—The school enumeration for 1899 gave a total of 755,698, of whom 14,703 were colored. The enrollment was 556,551, and the attendance average 424,725. The number of teachers was 15,486; the number of schoolhouses, 9,983. The amount of the common-school fund held by counties in June was \$7,842,032.77; the congressional township fund held by counties was \$2,469,982.50; total fund, \$10,312,015.27, making a net increase during the year of \$104,811.68. The tuition revenue distributed in January was \$2,435,603.66, and in July \$2,854,613.95; the special revenue distributed in January was \$554,682.66, and in July \$689,398.47; total revenue for the year, \$6,534,298.74.

Statistics gathered by a committee of the Town and City Superintendents' Association appointed to plan a uniform course of study for the public high schools show that the whole number of teachers devoting full time to high-school work is 270, of whom 118 are women. It is shown also that the average of high-school students, compared with the school population, increases from the larger to the smaller towns, those with more than 10,000 population having but 7.71 per cent. of the enumeration, while those below 2,000 have an average of 19.30 per cent.

The attendance at the State University, at Bloomington, in 1898-'99 was 1,050, every county being represented. The attendance in 1893 was but 572.

The Eastern Indiana Normal University was opened Aug. 29 at Normal City, a suburb of Muncie. A building affording accommodations for 1,000 students has been put up at a cost of \$75,000, and a faculty of 23 instructors appointed.

The enrollment for the spring term at the Central Normal College, at Danville, was more than 1,200. At the Northern Indiana Normal School, at Valparaiso, 3,247 were enrolled during the year, and the average attendance was 2,231. Diplomas have been given during the year to 1,255 students in the various courses.

At the sixty-first commencement of Wabash College, at Crawfordsville, in June, degrees were conferred on 17 seniors. The president resigned on account of disagreement with the board in regard to the management. He believes that girls should be admitted to the college privileges, and that their admission would give new life to the institution. In all, the college has graduated 784 students.

Charities and Corrections.—The statistics of the State institutions given in April were as follows: Daily average attendance in the insane hospitals: Central, 1,530; Northern, 603.77; Eastern, 530.6; Southern, 473; total, 3,137.37. At the other charitable institutions the daily average attendance was as follows: Soldiers' Home, 476; Soldiers' and Sailors' Orphans' Home, 611; Institution for the Deaf and Dumb, 320.8; Institu-

tion for the Blind, 121.27; Institution for the Feeble-minded, 556. The average attendance at the correctional institutions was as follows: State Prison, 779.73; Reformatory, 938.33; Industrial School for Girls and Women's Prison—women 46.1, girls 192.3, total 238.4; Reform School for Boys, 538. Total for correctional institutions, 2,504.46.

The net total expenditures for the one quarter at these institutions were: Central Insane, \$56,725.39; Northern Insane, \$24,451.09; Eastern Insane, \$21,176.81; Southern Insane, \$22,583.72; total, \$124,937.01. Soldiers' Home, \$17,504.74; Soldiers' and Sailors' Orphans' Home, \$23,766.09; Institution for the Deaf and Dumb, \$19,262.07; Blind Institute, \$9,149.65; School for Feeble-minded, \$32,894.54; State Prison, \$20,160.38; Reformatory, \$29,885.54; Women's Prison and Industrial School for Girls, \$9,317.84; Reform School for Boys, \$19,006.12. Grand total for all, \$305,883.98. For the same quarter in 1898, \$315,673.61.

At the Soldiers' Home five new cottages were built this year, with a capacity of 16 to 22 persons each, and a new administration building. The funds were given by counties and individuals. The cost of maintenance for the year was \$87,387.54. There still remain 75 applicants who can not be accommodated.

Militia.—The annual report of the Adjutant General shows that at the beginning of the Spanish-American War there were 4 regiments and 2 batteries. As many of the companies of the State militia were completely dismembered during the Spanish-American War, most of the men enlisting in the regular service, Adjutant-General Gore, acting under instructions of the Governor, has reorganized companies in 12 of the large cities.

Labor.—According to reports received at the State Statistician's office, 33,404 men are employed on farms in the State, who receive an average of \$13.89 a month and board. Of women employed in families, 11,714 are reported, and their average weekly pay is \$1.55 with board.

Strikes among miners in two districts were caused by controversies over the price of powder, which, as was asserted, was sold to the miners by the companies for 50 cents a keg more than the lowest price at which it could be obtained elsewhere, and they were compelled to buy of the companies. Another strike was caused by the discharge of a workman for intoxication, according to a rule of the company. At Evansville, in June, the importation of negroes to take the places of striking miners resulted in rioting and bloodshed.

Products.—From the annual agricultural report of the Bureau of Statistics for 1899 it is learned that the leading products of the farm, and their value for the year, taking the current prices at Indianapolis and including the live stock on hand, are as follows: Wheat, \$21,014,256; corn, \$45,374,041; oats, \$9,300,296; rye, \$299,450; barley and buckwheat, \$157,988; timothy and clover hay, \$40,600,830; flaxseed, \$13,880; Irish and sweet potatoes, \$3,255,340; sorghum, \$245,350; wool clip, \$1,140,400; tobacco, \$590,400; tame grasses, \$6,500,000; milk, butter, and cheese, \$17,180,000; poultry and eggs, \$6,980,000; slaughtered animals on farm, \$4,795,639; fruit and garden products, estimated, \$9,840,000; honey, \$680,000; milk cows, \$15,210,000; other cattle, \$19,964,340; sheep and lambs, \$4,680,600; swine and pigs, \$20,210,124; horses and mules, \$25,120,100.

The State Mine Inspector shows that 5,177,044 tons of coal were mined in 1898, an increase of 948,958 tons over the output of 1897 and an increase of 628,233 tons over that of any previous

year. In 1898 9,325 miners were employed in the State. The total production of petroleum in 1898 was 3,751,307 barrels, compared with 4,353,138 barrels in 1897, a loss of 601,831 barrels. The cause of the decrease is said to have been due to the low price of the fuel and the consequent falling off in the discovery of new fields.

There has been a gradual decrease in the pressure of the natural gas; the State Supervisor is quoted as saying in November that he had just examined 128 gas wells in western Grant County that showed an average pressure of 154 pounds, while a year ago the same wells showed a pressure of 183 pounds; and that, although there are a few points where only a few wells have been drilled, yet the gas field in general has been fairly well developed. He says that in the corner where Madison, Grant, and Delaware Counties join there is some good territory still. But he believes there is no reason to fear that the gas will entirely give out in the near future; indications are that there will be plenty for manufacturing for four or five years yet, and after that for an indefinite term for domestic purposes.

Banks and Trust Companies.—The report of the banking department of the Auditor's office indicates that in 1899 the assets of the trust companies increased \$3,700,000 over last year, while the State banks have increased their assets \$3,600,000 and the savings banks have increased their deposits \$650,000.

The law passed by the last General Assembly authorizing the incorporation of trust companies in cities formerly considered too small to support such institutions, and allowing a capitalization of less than \$100,000, has been the means of bringing out 12 new companies, all but 2 of which reported their condition to the Auditor. These two were not actively in business at the time the call was sent out. The aggregate holdings of the companies are given at \$1,250,000 in bonds and stocks, \$520,000 in trust funds, and \$825,000 in their own funds.

The reports from the State banks indicate that they are in better condition than at any time since 1893, and that the farmers and working people are patronizing them more liberally. The fact that the loans and discounts show an increase of \$2,000,000 indicates to the Auditor that there is an unusual amount of money on hand. The loans and discounts have increased \$2,000,000, while the time and demand deposits have increased \$4,600,000 over last year. The surplus of \$650,000 is \$40,000 larger than last year. This year 2 State banks went out of business, and 5 new banks were opened.

Building and Loan Associations.—The business of these associations has fallen off materially. It is estimated that fully \$3,000,000 less has been held by them than in the year next preceding. The withdrawals have amounted to a much larger sum, and the membership has decreased by more than 18,000. Six associations have gone to receivers and 2 to assignees, while 13 have gone into liquidation. Seven new associations have been organized.

Insurance.—For the last six months of 1899 the State treasury received from the insurance department \$106,389.19. Of this amount \$74,605.69 was collected as taxes from insurance companies doing business in the State, and the remaining \$31,783.50 are from the collection of fees of the agents of the companies. The first six months of the year the Auditor collected in taxes and fees \$117,202.30, making the total in revenues arising from insurance companies \$223,591.49, which is about \$15,000 more than has ever before

been received from this source in any one year. There are 250 companies authorized to do business in the State. Six Indiana fire companies report, and 8 life and accident companies have retired during the year. The taxes and fees for the past five years have amounted to \$986,335.

Railroads.—The total gross earnings of the passenger departments of 40 leading railroads of the State in 1898 were \$35,931,676, and of the freight departments \$89,471,757. The total operating expense was \$93,804,760.

The Order of the Iron Hall.—The final report of the receiver of this organization was filed in July, and the trust, which dates from Aug. 23, 1892, has been closed. Since the creation of the receivership \$1,976,776 has been distributed among 45,000 claimants and creditors, whose claims aggregated \$5,100,000. The cost of the receivership was 7 per cent. of the whole amount of money secured, and of this 2 per cent. went to the receiver.

The Scottsburg Lynching.—Suit was brought against the sheriff in Scott County, who allowed his prisoner to be taken by lynchers (see Annual Cyclopædia for 1898, page 337), by the father of Tyler, the victim, which resulted in a verdict of \$5 damages against the sheriff. A suit for damages was brought in September by the widow of one of the five men lynched at Versailles.

Legislative Session.—The General Assembly was in session from Jan. 5 to March 9.

The Governor gave in the message a statement of the condition of the State debt, showing a reduction of \$1,320,000 in two years, and a decrease of \$25,150 in the yearly interest. He recommended legislation to reform the methods of the administration of county and township government. The average of taxes for county, township, and city purposes is \$1.47 on the \$100, while the State calls for but 17 cents on the \$100. He advised a law to suppress lynching by making the counties responsible for damages. He recommended revision of the judiciary system; making the science of agriculture a part of the public-school curriculum; establishment of a court of arbitration for adjustment of differences between employers and employed; some means of check upon trusts; reconstruction of the State Board of Education so as to make its membership include more educational interests; taxation of insurance policies; an appropriation to complete the soldiers' monument; provision for separate keeping of the criminal insane; enactment of a strict primary-election law; creation of the office of State entomologist; and provision for the appointment of a nonpartisan committee of men and women in each county to visit its penal and charitable institutions at least as often as once in three months and report their condition to the State Board of Charities.

The term of United States Senator David Turpie expired this year, and Albert J. Beveridge was elected to succeed him. Other names before the Republican caucus were those of Messrs. Hanly, Taylor, Posey, and Steele. Mr. Turpie was the candidate of the Democrats. The vote in both houses showed 87 for Mr. Beveridge, 56 for Mr. Turpie, and 1 for Mr. Burkhardt.

Nearly 100 laws were made at the session, and most of the recommendations of the message were carried out.

Among the most important acts were those for the reform of county and township government. It is provided that there shall be an advisory board of three members in each township and a county council of seven members in each

county. They will eventually be chosen at general elections, but at first appointed by the judges of the various judicial circuits. Each county is to be divided into four districts, and there will be one councilman for each district and three at large. They must be divided in politics, and must be resident freeholders and taxpayers. The council is to fix the tax levy and make all appropriations. County officers and clerks of courts are required to submit estimates of the amounts that will be needed during the year for expenses of the offices, courts, county institutions, etc. These estimates must be itemized, published, and kept on file in the county auditor's office, subject to inspection by taxpayers. The council has exclusive power to buy and sell real estate for the county.

It is believed that this law will do away with many abuses and extravagances, and greatly reduce the cost of local government. It is made unlawful for county commissioners at a special meeting to transact any business that is not mentioned in the call. Commissioners may not build courthouses in counties of more than 25,000 inhabitants except on petition of 500 resident freeholders.

The law prohibiting councils in cities of 50,000 to 100,000 from altering or extending franchises of street-railway, gas, steam-heating, or electric-lighting companies was repealed. Within thirty days after an ordinance is passed to grant a franchise or buy a water or light plant 40 per cent. of the voters may demand that the question be submitted to vote, and if it is defeated no similar ordinance may be passed within three years.

An important law concerns mortgaged property, providing that it may be exempt from taxation up to \$700 mortgage indebtedness, with the condition that no one is entitled to exemption greater than half the appraised value of the land. By the operation of this law the State will lose a large amount of income, as the school fund (about \$6,000,000) is loaned and secured by mortgages. Assignments of mortgages must be properly recorded, in order that the owner may be taxed.

Several measures affecting insurance were passed. Certain life insurance was exempted from all claims of creditors. Suits against Masonic, Odd Fellow, and other charitable societies must be brought in the county where the principal office is or a subordinate branch to which the insured belonged at the time of his death, and may be served only on the subordinate branch. It is provided that stock life insurance companies must have at least \$100,000 subscribed, 50 per cent. of which must be paid up and invested in safe securities, \$25,000 of which securities are to be deposited with the Auditor of State, and evidence furnished that \$100,000 is all subscribed in good faith. The remainder must be paid in eighteen months. No part of the 50 per cent. required to be invested can be loaned to any officer or stockholder. To incorporate on the mutual plan, companies must have at least 250 applications for policies of not less than \$1,000, and a list of such applicants has to be filed with the Auditor of State, with a deposit equal to three fifths of the first annual premiums on such list. Insurance companies or trust and deposit companies are forbidden to loan funds to directors or officers. Insurance companies organized under special charters must file statements with the Auditor. Fraternal beneficiary organizations must make reports.

Building and loan associations may go into liquidation at any regular meeting of the directors.

The election law was so amended that any political party may have one challenger and one poll-book holder at each voting place. Any man who sells or offers to sell his vote may be disfranchised for ten to twenty years. The use of voting machines was authorized.

In the interest of labor several measures were enacted. Unskilled labor employed on public work is to receive not less than 15 cents an hour. Wages must be paid weekly, to within six days of pay day, and an agreement to the contrary is not binding. Assignment of future wages is prohibited. Written notice of a change in wages must be given twenty-four hours in advance. The office of factory inspector was abolished, and a State department of inspection created, with greater scope to insure safety of employees, regulate the hours of labor of women and children, etc. The term of a labor commissioner is advanced from two to four years, and his salary is placed at \$1,800. Mediation is to be offered in all strikes, instead of only those affecting as many as 50 persons. Acts were passed regulating blasting in mines and establishing tests for miners' oil.

Any firm or corporation doing the business of bankers, brokers, savings institutions, etc., is prohibited from using the word "trust" as part of the name of the business unless it is organized under the law of March 4, 1893, which authorizes the incorporation of loan, trust, and safe-deposit companies.

Aliens may foreclose mortgages and acquire property in the State on condition that they dispose of it within five years.

Several acts were passed in the interest of education. Traveling and township libraries are provided for, and \$3,000 was appropriated for collecting books. Five or more citizens may organize a library association and be entitled to the use of the traveling libraries without other payment than the cost of transportation. A majority of voters in a township may authorize a tax of one fifth mill for a township library. An appropriation of \$1,000 was made for the State Schoolbook Commissioners to advertise for books for use in public schools. Township trustees are required to furnish high-school education to pupils desiring it, either by building high schools, joining with other townships to build, or paying tuition for the pupils in high schools of neighboring towns. Incorporated towns of fewer than 1,500 inhabitants may turn over the control of their public schools to the township trustees. The State Superintendent may make life certificates issued by other States to teachers good in Indiana. Three additional members of the State Board of Education are to be chosen from among the county superintendents. Cities and towns are to be liable for debts on school property in annexed territory. Directors of colleges elected by stockholders may, prior to 1902, prescribe religious or denominational qualifications for membership in the board.

Regarding the employment of convicts in the State Prison, the Board of Control is required to institute instructions of an educational and technical nature, and is authorized to contract for the labor of 400 convicts and 50 per cent. of the number of convicts in excess of 800. The prisoners are to be employed at such trades as the board may direct, not more than 100 at any one trade. The piece-price system is authorized, and the board is to have full control of convicts' labor. The board may lease lands for farm products to be used in the prison, the surplus raised to be sold in open market. All prisoners not engaged in the prison may be employed on the farms.

No contracts for prison labor can run longer than Oct. 1, 1904. Contracts are to be let to the highest bidders. Not more than eight hours shall constitute a day's work. It is the intention of this act that all work done by the prisoners of the Indiana State Prison under the State-account system shall be hand work as far as practicable and remunerative to the State. Each discharged convict is to be provided with a ticket to any place he chooses not farther away than the one from which he was sentenced, besides \$10 in money, a suit worth not more than \$6, and a \$5 overcoat.

The Reform School for Girls and Women's Prison was separated into two institutions, the one to be known as the Indiana Industrial School for Girls, and the other as the Indiana Women's Prison.

The operation of the parole law was extended to prisoners in the State and in the women's prisons and those sentenced to the Reformatory for stated terms. An appropriation of \$10,000 was made for clothing for paroled Reformatory prisoners.

Acts were passed regulating the administration of relief to the poor. Overseers are to satisfy themselves that applicants for help, if able to work, are doing all they can to find employment, and to assist them in finding it. They are to co-operate with voluntary charitable societies, and see that relief is not unnecessarily duplicated. County boards of charity are provided for. Dependent children may not be brought into the State unless bond is given for their maintenance during their minority. This is to encourage the placing of Indiana children in Indiana homes. But residents may offer homes to children related to them without giving bonds. A nonpartisan committee to visit State institutions and report the amount of funds necessary was provided for, and an act was passed to regulate the management of county almshouses.

A general fish and game law was enacted. The Commissioner of Fisheries is to have jurisdiction over game.

The office of State Entomologist was created, and inspection of nurseries and nursery stock coming into the State was provided for.

If a judgment against a railroad company remain unpaid a year, the court may order any employee having money of the company on hand or coming due to pay it into court until the judgment and costs are satisfied.

In suits for damages for personal injuries or death the want of contributory negligence need not be proved by plaintiff. Contributory negligence is a matter of defense.

In cases of change of venue in criminal trials the judge of the court granting the venue has sole power to appoint counsel on either side.

When an amount tendered in payment and refused is brought into court and found to be more than is due, only the sum due shall be paid.

A judge may not try a penal case if he is related to the defendant within the sixth degree of consanguinity or if he has acted as counsel on either side in the case.

The salary of a justice in a city of 100,000 inhabitants was fixed at \$2,000, in place of fees, and of justices in townships having cities of 35,000 to 60,000 at \$1,000.

Notice of appeal served on nonresident co-parties must be published three weeks, and unless they decline to join they shall be regarded as joined.

Other acts were:

Creating a State Board of Pharmacy.

A general pure food and drugs law.

Providing fire-escape regulations, to be enforced by the chief of the department of inspection of the State.

Providing for a field inspection of commercial fertilizers, instead of allowing them to be sold on the analysis of a sample from the factory.

Making it a misdemeanor to injure or tamper with electric apparatus or divert the current.

Appropriating \$100,000 to finish the State monument to soldiers and sailors.

Directing the Adjutant General to prepare records of volunteers of the State in the Spanish war and distribute them.

Appropriating \$400 to pay expenses incident to the presentation of Spanish-American War relics to the State, including battle flag of the battle ship Indiana and the machine gun captured in Santiago harbor, and providing means for the care and preservation of the relics.

Appropriating \$40,000 to reimburse soldiers for the amounts withheld to pay for their uniforms.

Granting a pension of \$100 a month to the widow of Gov. O. P. Morton.

Accepting jurisdiction to lands in Grant County ceded by Congress for the purpose of a branch home of the National Home for Disabled Volunteer Soldiers.

Pensioning Indianapolis policemen.

Granting peddlers' licenses free to ex-United States soldiers.

Requiring a transaction in patent rights to be recorded with the county clerk.

Requiring a fine of \$20 from any person allowing Canada thistles to grow 4 inches high or higher on his land.

Regulating the practice of medicine.

Making it larceny to steal a dog listed for taxation at its true cash value, unless it has killed or worried sheep.

Making it a felony to use explosives or poisons, under penalty of a year's imprisonment.

Defining a mob and the crime of lynching, and making the penalty for participation death or imprisonment for life.

To amend an act defining fraudulent marriages.

To cede to the Federal Government any lands chosen by it for the establishment of military posts.

To provide for the survey and sale of swamp lands.

To amend the law so that damages recovered by reason of the death of a person shall inure to the exclusive benefit of a widower as well as to a widow or children.

Providing that street cars must be comfortably heated, November to March, under penalty of \$25 to \$100 a day for each car.

A bill making an appropriation for a hospital for the criminal insane at the Jeffersonville Reformatory was defeated in the Senate by a vote of 21 for to 24 against it; but by some mistake it was signed by the President of the Senate, the Speaker of the House, and the Governor, and, according to court decisions in similar cases, became a law. It appropriates \$25,000 for a building and \$13,000 for maintenance for two years. The trustees have, however, announced that they will not take advantage of the mistake to draw the appropriation.

A State Fee and Salary Commission was created to serve two years and investigate the subject of official fees and salaries.

A constitutional amendment will be voted upon in November, 1900, fixing the number of justices of the Supreme Court at not fewer than 5 nor more than 11, instead of 3 to 5, as now; also one

authorizing the Legislature to prescribe qualifications for admission to the bar.

The Fee and Salary Laws.—The laws on these subjects passed in 1891 and 1895 were held to be constitutional by the Supreme Court in June in a suit brought to recover fees from a county recorder, who claimed that the laws were invalid and that he was entitled to the fees under the law of 1879. A bill prepared by the County Officers' Association to revise the law was defeated in the Legislature.

INDUSTRIAL MISSIONARY ASSOCIATION OF ALABAMA. This society was incorporated at Selma, Ala., in October, 1888, to operate in the black belt of that and other States. Its first and most important objects of labor were plantation negroes. Like all freedmen, these had lost by emancipation the accustomed care of their masters, and in rural isolation and dependence that loss fell upon them most damagingly. They were free, indeed, but terribly impoverished and untrained. Great masses of them used their freedom simply for license and degradation. Judge Tourgée says the average head gear of the Northern people was a richer possession than the dowry which this race received with their freedom after two and a half centuries of bondage. Their home was a one-room cabin without glass or plaster, lighted by the open door or yawning crack and chink; their daily fare chiefly "po'k and co'n cake," with an occasional chicken whose antecedents would best not be too closely questioned; their attire a tatterdemalion rig of cast-offs and misfits; and their business chance the advance-mortgage system, working probably as well in the South as it would anywhere, and, indeed, the only chance possible immediately after the war for either planter or tenant, yet with the net outcome in most cases of making the planter a schemer and the tenant a hand-to-mouth toiler, with the wolf always at the door. Such was the situation in the black belt. As for education, the South did generously according to her means. The statutes provided for the black boy his full share of a fund that was almost wholly paid by the white boy's father. But funds were low at best, black schools had to be short and far apart, and teachers were a wonder for incapacity. Hence for actual education the country school was a practical nullity.

The Rev. Charles B. Curtis and his wife, laboring ten years at Selma, were deeply impressed with these conditions, and, after studying the problem all those years, they finally organized the above-named society. The commissioners—Charles B. Curtis, George M. Elliott, and Asher W. Curtis—filed a declaration providing for \$10,000 in capital stock at \$10 a share, no profits or dividends ever to be declared to stockholders. Later, in April, 1890, the authorized capital was increased to \$1,000,000.

The association aims to give plantation people a business chance with a fair account, duly enforced responsibility, and practical daily teaching. Gratuity is expressly avoided. The planter's lien, taken for advances and rent, is duly enforced if need be. Patient but firm is the ideal. The renter has a true friend in authority, but the rent must be paid. This lesson needs to be learned not only by the black-belt negro tenant, but by a large share of tenants of every kind in every section.

The association began with 400 acres at Beloit, Ala., 10 miles from Selma. This has been increased to 4,000 acres. In October, 1899, there were on the lands actually renting 65 families, with many others in the vicinity under mission-

ary care. The secured debt has been reduced from \$30,000 to about half that sum. For several years the business profits from lands, store, and mills have sustained the teaching, preaching, visitation, and superintendence in homes and industries. Some of the renters are beginning to purchase lands on small payments. Shareholders are widely scattered throughout the country, and financial assistance has come from 39 American States and 5 foreign countries.

The Northern office of the association is at Oberlin, Ohio, where the Plantation Missionary and other publications are issued. The principles in force at Beloit have worked so well and are so thoroughly in accord with the recent conclusions of improved charity that the association has definitely entered upon the advocacy of its views and principles as a means for uplifting the unfortunate in every section.

The officers are as follow: President and General Manager, Rev. Charles B. Curtis, Beloit, Ala.; Vice-President, Rev. S. Kingston, Selma, Ala.; Secretary, Miss S. A. Calhoun, Beloit, Ala.; Treasurer, Mrs. M. V. Curtis, Ithaca, N. Y.; Northern secretary and editor of the Plantation Missionary, Rev. Chauncey N. Pond, Oberlin, Ohio. The directors are C. B. Curtis, M. V. Curtis, S. Kingston, D. Echols, S. A. Calhoun, R. J. McIsaac, C. N. Pond, Mrs. H. B. Sullivan, and Prof. C. L. Fisher, centering at Selma, Ala. The Prudential Committee is a purely advisory body, as follows: Rev. H. M. Tenney, D.D., and Rev. C. N. Pond, Oberlin, Ohio; President Charles F. Thwing, D.D., and Rev. H. C. Haydn, D.D., Cleveland, Ohio; Rev. W. F. Gunsaulus, D.D., Chicago, Ill.; Rev. R. T. Hall, D.D., New Britain, Conn.

The scope of the society is not mainly in the people who will, as generations pass, be personally benefited, but in the extension of the principles involved. The philanthropic use of capital in actual business, with a profit therefrom devoted to practical, everyday teaching, and with a corollary favoring the considerate treatment of tenants and laborers everywhere, constitutes the real scope of the association.

IOWA, a Western State, admitted to the Union Dec. 28, 1846; area, 56,025 square miles. The population, according to each decennial census since admission, was 192,214 in 1850; 674,193 in 1860; 1,194,020 in 1870; 1,624,615 in 1880; 1,911,896 in 1890. By the State census of 1895 it was 2,058,069. Capital, Des Moines.

Government.—The following were the State officers during the year: Governor, Leslie M. Shaw; Lieutenant Governor, J. C. Milliman; Secretary of State, George L. Dobson; Treasurer, John Herriott; Auditor, Frank F. Merriam; Attorney-General, Milton Remley; Superintendent of Instruction, R. C. Barrett; Adjutant General, M. H. Byers; Railroad Commissioners, E. A. Dawson, Welcome Mowry, David J. Palmer; Labor Commissioner, W. E. O'Bleness; Librarian, John-son Brigham; Board of Control for State Institutions, William Larrabee, L. G. Kinne, John Cownie; Fish Commissioner, George E. Delevan; Chief Justice of the Supreme Court, G. S. Robinson; Associate Justices, Scott M. Ladd, C. T. Granger, Josiah Given, C. M. Waterman, H. E. Deemer; Clerk, C. T. Jones—all Republicans.

Finances.—At the beginning of the last fiscal biennial period there was a deficit in the treasury of \$412,000. At its close, July 1, 1899, there was a balance on hand of \$445,002.37, besides \$51,000 due from the Government. The following statement is from an address by the Treasurer in October: "During the two years ending July 1, 1899,

there was received at the State treasury from all sources \$5,079,403.29. This amount was derived from the following sources: From the counties, \$4,055,767.75, which was inclusive of the taxes paid by railroads; from corporations, such as insurance, express, telegraph, and telephone companies, \$375,596.57; from fees collected by State officers, \$222,399.34; from taxes on collateral inheritances, \$52,799.52; from the Federal Government, \$192,328.62; from the State institutions, \$133,503.96; and from various sources, \$46,507.64.

"The expenses of the State government during the biennial period closing June 30, 1899, were \$4,190,994.93. These expenses were divided as follow: For the judiciary, \$342,839.96; for the Legislature, \$120,516.50; for the executive department, \$188,616.28; for the institutions maintained by the State government of Iowa the total expenditures were \$3,141,008. This is inclusive of the disbursements of the special tax for the State University. For educational institutions, \$400,262.57 was appropriated; for charitable institutions, \$1,933,200.38; for penal institutions, \$396,140.09; for reformatory, \$167,061.93. The incidental expenses of the State government amounted to \$478,515.52. In this latter sum is included \$141,000 disbursed from the treasury on account of the late war with Spain."

The total assessed valuation of property in 1899 was \$525,391,741, about \$20,000,000 less than that of 1898. A new law went into operation Jan. 1 which requires that all property be assessed at 25 per cent. of its actual value. The valuation of real estate under this law is \$390,297,578; of railroads, \$44,736,070; of live stock, \$36,063,244; of money and credits, \$25,650,027; of merchandise, \$14,230,944.

The tax levy in 1898 was 3.2 mills; in 1899 it was 2.9 mills.

The total revenue from the mullet tax and saloon licenses for the year ending July 1 was \$1,120,544.

The State recovered \$1,219 in May in a suit against ex-Secretary of State W. M. McFarland, who was convicted of having withheld that amount from the salaries paid by the State in 1895, and supposed to have been received by the census clerks.

Banks.—The condition of the 204 savings and the 209 State banks at the close of business Sept. 7 is reported as follows: Savings banks—liabilities: capital stock, \$7,942,100; due depositors, \$50,497,926.72; due banks, \$59,715.02; surplus, \$696,508.05; undivided profits, \$1,062,669.58; total liabilities, \$60,258,819.37; assets: bills receivable, \$45,036,674.92; cash and cash items, \$2,129,940.09; credits subject to sight draft, \$10,836,678.28; overdrafts, \$398,514.31; real and personal property, \$1,857,111.77; total assets, \$60,258,819.37. State banks—liabilities: capital stock, \$9,098,170; due depositors, \$30,209,722.27; due banks and bankers, \$550,631.66; surplus, \$1,030,786.52; undivided profits, \$879,485.91; total liabilities, \$41,768,796.36; assets: bills receivable, \$28,634,705.91; cash and cash items, \$2,114,332.95; credits subject to sight drafts, \$8,187,426.43; overdrafts, \$768,581.47; real and personal property, \$2,063,689.60; total assets, \$41,768,796.36.

Between Jan. 6, 1898, and Sept. 7, 1899, the deposits in all these banks increased \$28,500,000. The deposits in national banks were \$42,238,769, and those in private banks were estimated at \$40,000,000.

Failures.—Bradstreet's reports 111 failures in Iowa during the first nine months of 1899, with liabilities of \$389,610 and assets of \$213,235, against 159 failures during the first nine months

of 1898, which had \$1,161,799 liabilities and assets of \$794,613.

Railroads.—During the year 582.66 miles of new track were laid in the State; this seems to be a larger amount than is reported from any other State. The report of the Railroad Commission shows the number of railroad employees this year to be 32,385, against 30,009 in 1898; their total compensation was \$18,406,383.76 in 1899, while in 1898 it was \$17,280,215.01; and the average daily compensation was \$1.82 in 1899 and \$1.83 the preceding year. The report says that the railroad managements have become thoroughly aroused to the public necessity of bettering their roads in Iowa, and the trunk lines alone have expended hundreds of thousands of dollars on improvements. In the year ending June 30, 1898, the railroads paid in State, county, and municipal taxes \$1,399,090.79.

Insurance.—An opinion by the Supreme Court, given in November, declares unconstitutional that portion of the State law which exempts insurance corporations from paying taxes other than the 1-per-cent. tax levied by the State and collected by the Treasurer. It holds that insurance and kindred corporations are subject to State, county, city, and school taxes, just as individuals are. Their capital stock and personality by this holding are placed on a footing with their real estate, all being subject to the local tax levies, which formerly they escaped.

It was also decided that the State tax against foreign insurance companies is constitutional and valid. It holds that the tax is not a tax upon property but upon business—that is, the privilege of doing business in Iowa—which is determined wholly by this State. The tax on foreign insurance companies is 3½ per cent. on premiums. The principle is applicable to all companies in the United States outside of the State which do business in Iowa. The tax on this class is 2½ per cent. The State collects about \$35,000 annually from the foreign companies, and much more from the domestic companies.

The clause of the State Constitution prohibiting the granting of privileges and immunities to any citizen or class of citizens not granted to others, it is held, has reference only to citizens residing in the State. It is held that a foreign corporation has no absolute right of recognition in other States. It depends on their assent for recognition and enforcement of its contract, and a State is not prohibited from discriminating in the privileges it may grant to foreign corporations as a condition of their doing business within its limits.

Education.—The superintendent's report gives the whole number of enumerated school population as 727,775; enrolled in schools, 554,992; whole number of schools, 18,177; of teachers, 28,437; value of schoolhouses, \$16,908,076. The men teaching in public schools receive an average monthly salary of \$38.31; the women, \$30.30. The total cost of the schools for the year was \$8,583,416.

The high schools of the State graduated 1,839 young women in 1899, and 954 young men.

The State Normal School is greatly overcrowded, having had in all departments this year about 1,900, and 300 in the graduating class. The establishment of more normal schools is urged upon the Legislature.

The State College of Agriculture and Mechanic Arts, at Ames, has a constantly increasing attendance, requiring this year the services of 67 teachers, while ten years ago there were but 25. Decrease in the rate of interest obtained on the en-

dowment fund has straitened the college in its resources, and it therefore asks of the State a tax of one tenth of a mill for five years.

The State University is receiving this amount from special tax, ordered by the twenty-sixth General Assembly for five years, and continued a year longer by the twenty-seventh. The corner stone of a new building was laid in connection with the exercises of the commencement in June. President Charles A. Schaeffer died in September, 1898, and George E. MacLean, of the University of Nebraska, was elected to succeed him.

A large class was graduated at Drake University in June. Ex-Gov. Drake has added more than \$30,000 to his gifts to the institution, and a new auditorium is to be built soon.

A somewhat bitter controversy in connection with Iowa College, at Grinnell, was ended in November by the resignation of Prof. George D. Herron. He has held for six years the chair of Applied Christianity, which was endowed by Mrs. C. A. Rand on the condition that it be filled by Prof. Herron. The socialistic theories taught by the professor have been a source of constant criticism, and finally led to his resignation. Mrs. Rand withdrew the condition in regard to him, and gave the endowment to the college, stipulating that the income shall be paid as salary to one man, and that the department shall be for the original purpose—the interpretation of the teachings of Christ and their application to the problems of society.

Charities and Corrections.—The State institutions, not including those purely educational, were placed in the care of a State board of control by the twenty-seventh General Assembly. Its first report was filed in November. Fourteen institutions are under the care of the board.

The total cost of the institutions under the trustee system the last year was \$1,440,117.77, and under the board \$1,060,627.04.

The Treasurer says that other payments made by the Board of Control were on contracts entered into by the trustees, and therefore chargeable to the year the contracts were made; this and an undrawn balance would make the difference still greater, and show a decrease of more than 30 per cent.

The number of inmates of these institutions in November was: Anamosa, 499; Fort Madison, 510; Clarinda, 872; Independence, 993; Mount Pleasant, 911; Council Bluffs, 274; Vinton, 160; Davenport, 453; Marshalltown, 563; Knoxville, 43; Glenwood, 835; Eldora, 446; Mitchellville, 158; total, 6,717. The Cherokee Hospital for the Insane is not finished.

The board introduced an innovation by stopping the supplying of tobacco to convicts. Butter will be furnished instead.

A riot broke out in October at the Girls' Reform School, at Mitchellville. About 100 of the inmates appear to have been involved. Some escaped and more than 70 were put into jail, most of whom were returned to the school. The damage to the building was repaired for about \$200.

Military.—The report of the Adjutant General gives the casualties of the 4 State regiments of infantry in the Spanish war as 163. Only 1 was reported killed, 1 missing, and 38 wounded; 1 died by suicide and 1 by accident, and 127 from typhoid fever.

The amount of money drawn from the \$500,000 war appropriation by the State was \$148,168.18. There has been refunded to the State Treasurer from the General Government \$91,483.78. Those liable to military duty in Iowa at this time number 302,270.

Court Decisions.—The Supreme Court decided in January that the building and loan enabling act of the last Legislature is valid and the building and loan law of the State constitutional. It also holds that premiums charged arbitrarily without actual competition in securing loans from these concerns are interest. The same court decided that receivers appointed by courts in other States can not recover in the courts of Iowa.

One of the lower courts declared in July that the medical-practice act is unconstitutional, and in December the paving law was held to be invalid.

State Historical Building.—The corner stone of a State historical building was laid, May 17, on the site chosen, about a quarter block northeast of the Capitol. The cost will be \$300,000, and the building, besides reading rooms, parlors, and offices, will have rooms for a museum, an art gallery, an aquarium, and an auditorium. Historical collections illustrating the history and development of the State will form an important part of the museum.

Products.—The following summary of the products of the State is taken from Gov. Shaw's second inaugural:

"Iowa, during several of recent years, could have annually furnished every man, woman, and child in the United States a pound of cereals per day for three hundred and sixty-five days. This is a larger ration than the average people of the world consume. In addition, we would have potatoes and other vegetables, grapes by the car load, apples some years by the train load, and other fruits, \$1,000,000 worth of canned goods per annum, 2,500,000 eggs a day, 25 car loads of honey, and all the beef and pork and mutton and butter and cheese that can be produced on 8,500,000 acres of pasture and with 4,000,000 tons of hay. By feeding some of this grain we are able annually to slaughter 1,000,000 hogs and cattle worth \$15,000,000, and export 5,000,000 more, worth \$65,000,000, and \$500,000 worth of fat sheep. We can keep our people from freezing with a product from Iowa mines of 2½ tons of coal per capita. Not only is Iowa an agricultural State, but she is making a very creditable showing in manufactures. She ships woolen goods, spun and woven in this State, by the car load to the best-known wholesale firms in Philadelphia and New York, shoes by the car load beyond State lines, manufactured lumber into several, and her cast-iron wheels are used in more than half of the States of the Union. She produces annually 1,000,000 dozen pearl buttons, and gloves and mittens by the car load. Besides these, all over the State small factories of different kinds are springing up, relatively of little importance, and yet in the aggregate worthy of consideration. Her facilities for producing beet sugar are unsurpassed. The beet-producing lands of Europe cost per annum, in rent and fertilization, from \$15 to \$20 per acre. Most of the cane-sugar lands cost, including water, quite as much. Iowa lands require no expenses of this kind, and produce beets of unexcelled quality, and the pulp, after the saccharine matter is extracted, is claimed to be as good food for dairy cows as before their reduction. Shall we have sugar factories? The question must be speedily decided. What though it requires \$400,000 or \$500,000 for each plant? There is on deposit in the banks of Iowa to-day over \$160,000,000, of which more than one third is owned by farmers themselves, and in many counties of the State the farmers own 75 per cent. of the bank capital also. I should be pleased to see beet-sugar factories exempted from taxa-

tion for ten years. It is probable that if they are built considerable of the capital required will come from other States. Will we lose anything by inviting it to come?"

The official crop report for 1899 shows a total of farm products of the value of \$194,605,706, to which, the director says, should be added the increment gained by consumption of crops in the production of beef, pork, mutton, wool, dairy and poultry products, horses, etc. This would make the aggregate value of all soil products for the year not less than \$230,000,000.

Public Lands.—A statement of the business of the Bureau of Public Lands for the two years ending in October shows that 1 lot and 14,327 acres have been patented. There still remain 44,925 acres in the various grants, exclusive of swamp and railroad lands, which can not be estimated.

Fisheries.—The biennial report of the Fish Commissioner shows that 650,000 adult fish have been put into Lake Okoboji during the period, 475,000 into Spirit lake, and 2,844,000 into the rivers and smaller lakes of the State, making a total of over 4,000,000 with which all the waters of the State have been stocked. The receipts of the department amounted to \$9,000, the expenditures \$6,724.47, leaving a balance of \$2,275.53.

Political.—Six tickets were before the people for the State election in November—Republican, Democratic, Prohibitionist, Populist, Socialist-Labor, and United Christian.

The Republicans in convention, Aug. 2, adopted resolutions approving the national and State administrations; they also approved the candidacy of D. B. Henderson for Speaker of the House of Representatives, denounced the Chicago platform and its declaration in favor of free trade and free-silver coinage at the ratio of 16 to 1, and its attacks upon the courts; favored legislation to up-build American commerce; said of trusts: "Industry and commerce should be left free to pursue their method according to the natural laws of the world, but when the business aggregations known as trusts prove hurtful to the people they must be restrained by natural laws, and, if need be, abolished"; and declared that "there shall be no division among us until all in arms against the flag shall confess its supreme rights and power, and shall know that even in the farthest East it is the sign and promise of equal law, of justice, and liberty throughout the land and to all the inhabitants thereof."

The nominations were: For Governor, Leslie M. Shaw; Lieutenant Governor, J. C. Milliman; Supreme Judge, J. C. Sherwin; Railroad Commissioner, E. A. Dawson; Superintendent, R. C. Barrett.

The Democratic State Convention was held Aug. 16. A Populist convention was held at the same time, and a ticket was agreed upon. The resolutions of the Democrats approved the Chicago platform, favored the nomination of William J. Bryan in 1900, approved the Spanish war, and said further: "The attempt, unauthorized by Congress, to conquer the natives of Oriental islands is a repudiation of the American doctrine of consent affirmed in the Declaration of Independence, and in conflict with the principles which George Washington and his fellow-patriots of the Revolution made sacrifices to establish.

"We also condemn the war against the Filipinos, believing it to have been inspired by Great Britain for the purpose of producing conditions that will force an Anglo-American alliance, and we not only protest against the war and demand its termination by extension to the Filipinos of the same assurance given to the Cubans, but we

record our deep-seated antagonism to an alliance with Great Britain or any other European power, and express our detestation of the attempt made in British interests to disrupt the friendly relations which have uniformly existed between the United States and Germany. We oppose conquest of the Philippines because imperialism means militarism, because militarism means government by force, and because government by force means death of government by consent, destruction of political and industrial freedom, and the obliteration of equality of rights and association of democratic institutions.

"It is our solemn conviction that the trusts must be destroyed or they will destroy free government. And we demand that they be suppressed by the repeal of the protective tariff and other privilege-conferring legislation responsible for them by enactment of such legislation, State and national, as will aid in their destruction."

Other resolutions condemned contract convict labor and the policy of the State administration. The platform of the Populists was of similar import. The ticket follows: For Governor, Fred E. White; Lieutenant Governor, M. L. Bevis; Supreme Judge, A. Van Wagenen; Railroad Commissioner, W. H. Calhoun; Superintendent of Public Instruction, B. P. Holst. Mr. Calhoun is a Populist.

The other wing of the People's party held a convention at Des Moines Aug. 30. The Omaha platform was approved; free coinage of silver at 16 to 1 was advocated; direct legislation and proportional representation were demanded; it was declared that the evil of trusts can be done away with not by restrictive legislation, but only by public ownership of natural and economic monopolies; and the resolutions concluded: "The declaration of Congress 'that the people of Cuba are and of right ought to be free and independent' should apply with equal force and effect to the Filipino and his native land, and that the same rights and liberties so guaranteed to one by the United States should also immediately be guaranteed the other and tendered to both."

The following nominations were made: For Governor, Charles A. Lloyd; Lieutenant Governor, S. M. Harvey; Judge of Supreme Court, L. H. Weller; Superintendent of Public Instruction, C. Wirth; Railroad Commissioner, R. L. Dunning.

A new party, the United Christian, was organized this year, and held its State convention early in July. It aims to unite all Christian voters at the ballot box. Following is a part of the platform:

"We declare for the adoption of the system of direct legislation known as the 'initiative and referendum,' together with proportionate representation and the 'imperative mandate,' that the power of the people may be justly and effectually exercised, being governed in all things, law making included, by the standard, 'What would Jesus do?'"

"We advocate this system of government, and present it to the people as the only practical method of securing State and national reform.

"We will not cast our ballots in any other than the name of Jesus Christ, and we will endeavor to be guided by God, the Father, Son, and Holy Ghost. Amen."

The ticket was: For Governor, C. C. Heacock; for Lieutenant Governor, J. R. Leonard; for Judge of the Supreme Court, John M. Helmick; for Superintendent of Public Instruction, W. C. Pidgeon; for Railroad Commissioner, C. Z. Lindley. F. W. Darner was afterward made the candidate for Justice of the Supreme Court.

The Prohibitionists nominated Mr. Atwood for Governor, Mr. Pugsley for Lieutenant Governor, D. S. Dunlavy for Superintendent of Instruction, H. F. Johns for Justice of the Supreme Court, and A. B. Wray for Railroad Commissioner.

The candidates of the Socialist-Labor party for the State offices were: For Governor, Mr. Kremer; Lieutenant Governor, Mr. Bronner; Superintendent, Mrs. E. P. Travis; Railroad Commissioner, N. Heisel.

The Republicans elected their entire ticket, the vote for Governor standing as follows: Shaw, Republican, 239,543; White, Democrat, 183,326; Atwood, Prohibitionist, 7,650; Lloyd, Populist, 1,694; Kremer, Socialist-Labor, 763; Heacock, United Christian, 483.

The returns show that there will be in the State Senate 35 Republicans and 15 Democrats, and in the House 81 Republicans and 19 Democrats.

ITALY, a kingdom in southern Europe. The throne is hereditary in the line of Savoy by male descent in the order of primogeniture. The reigning King is Umberto I, born March 14, 1844, the eldest son of Vittorio Emmanuele II of Sardinia, the first King of United Italy. The heir apparent is Vittorio Emmanuele, Prince of Naples, born Nov. 11, 1869. The legislative power is vested in a Parliament, composed of a Senate containing at present 372 members, nominated for life by reason of services in public or eminence in science, literature, or other pursuit tending to the benefit of the nation, and a Chamber of Deputies, containing 508 members, 1 to 57,000 of population, elected under the law of 1895 by all adult male citizens who can read and write and pay 20 lire of direct taxes or occupy a farm renting for 500 lire, or occupy a tenement or a place of business in towns at a certain minimum rent. Soldiers are disqualified while in active service. Princes of the royal house have seats in the Senate. No priest filling a clerical charge nor any salaried official, except ministers and certain others holding responsible positions, can be elected a Deputy. Neither Senators nor Deputies are paid.

The ministry formed on June 29, 1898, was composed of the following members: President of the Council and Minister of the Interior, Gen. Luigi Pelloux; Minister of Foreign Affairs, Admiral Felice Napoleone Canevaro; Minister of the Treasury, Pietro Vacchelli; Minister of Finance, Paolo Carcano; Minister of Justice and of Ecclesiastical Affairs, Camillo Finocchiaro Aprile; Minister of War, Gen. Alessandro Asinari di San Marzano; Minister of Marine, Admiral Giuseppe Palumbo; Minister of Commerce, Industry, and Agriculture, Alessandro Fortis; Minister of Public Instruction, Prof. Guido Bacelli; Minister of Public Works, Pietro Lacava; Minister of Posts and Telegraphs, Nunzio Nasi.

Area and Population.—Italy has an area of 110,646 square miles, according to the latest surveys. The population, which increased from 18,124,000 in 1800 to 28,460,000 in 1881, on Dec. 31, 1898, was estimated at 31,667,946. The number of marriages in 1898 was 219,597; of births, 1,115,166; of deaths, 777,357; excess of births, 337,809. The number of emigrants who departed in 1898 with the declared intention of settling abroad was 126,787; temporary emigrants, 155,945. The number of Italian immigrants that arrived in the United States in 1898 was 58,613, compared with 59,431 in 1897, and 68,060 in 1896. The Italian immigration into the Argentine Republic in 1898 was 39,135.

The estimated population of the chief cities on Dec. 31, 1898, was: Naples, 540,393; Rome, 500,610; Milan, 481,297; Turin, 365,800; Palermo,

200,951; Genoa, 232,774; Florence, 212,898; Venice, 157,099; Bologna, 155,797; Messina, 154,436.

Finances.—The budget estimate of revenue for the year ending June 30, 1900, was 1,700,645,823 lire. The ordinary receipts were estimated at 1,681,307,326 lire, and extraordinary receipts at 19,338,497 lire. The ordinary expenditures were estimated at 1,605,316,241 lire, and the extraordinary at 96,475,634 lire; total, 1,701,791,875 lire. The revenue from railroads and state property was reckoned at 96,491,264 lire, of which railroads produce 82,022,200 lire, state property 12,920,735 lire, and various sources 1,548,329 lire; direct taxation, 482,025,900 lire, made up of 286,275,900 lire from income tax, 106,650,000 lire from the land tax, and 89,100,000 lire from the tax on buildings; taxes on transactions, 286,275,900 lire, including 67,900,000 lire from stamps, 60,000,000 lire from registration, 20,280,000 lire from the tax on railroad receipts, 37,000,000 lire from succession duties, 11,800,000 lire from the tax on the operations of banks and commercial companies, 7,400,000 lire from the duty on mortgages, 7,550,000 lire from various concessions, 6,400,000 lire from mortmain revenues, and 675,000 lire from consular fees; customs, monopolies, and excise, 678,665,000 lire, of which 194,000,000 lire come from the tobacco monopoly, 74,000,000 lire from salt, 51,865,000 lire from octrois, 52,800,000 lire from duties on the manufacture of beer, spirits, mineral waters, gunpowder, and sugar, 66,000,000 lire from the lottery, and 240,000,000 lire from customs; public services, 94,443,800 lire, of which 59,200,000 lire come from the post office, 14,300,000 lire from telegraphs, 7,200,000 lire from school fees, 5,408,200 lire from prisons, 1,460,000 lire from fines, 3,000,000 lire from assays, 1,700,000 lire from land registry, and 2,175,600 lire from various services; repayments, 22,870,283 lire; various departmental receipts, 23,303,500 lire; domains, 15,510,555 lire; interest on invested funds, 18,475,401 lire; communal contributions of Rome and Naples, 27,951,876 lire; miscellaneous receipts, 2,584,647 lire. Of the extraordinary receipts 4,580,487 lire come from recovery of debts, 698,490 lire from various effective sources, 377,576 lire from railroad-construction account, 13,681,944 lire from movement of capital, 4,673,840 lire from sales of state property, and 9,008,104 lire from various other sources.

The expenditures are 476,982,128 lire for interest on the consolidated debt, 60,435,593 lire for extinguishable debts, and 26,635,920 lire for the annuity for the purchase of railroads in northern Italy; 121,683,317 lire for interest on floating debt, including 17,351,350 lire on treasury bonds, 15,414,000 lire due to railroad companies, 80,416,752 lire on railroad guarantees, and 4,271,000 lire on accounts current; 18,050,000 lire for the civil list and appanages; 6,088,000 lire for pensions; 2,155,000 lire for the Senate and Chamber of Deputies; 9,894,521 lire for general expenses of the Ministry of the Treasury; 953,385 lire for various services; 3,500,000 lire for a reserve for unforeseen expenses; 18,475,501 lire for the service of the amortizable debt; 2,074,647 lire for interest; 509,827 lire for domains; 26,817,882 lire for extraordinary expenditure of the Ministry of the Treasury; 29,339,630 lire for general expenses of the Ministry of Finance, including 9,019,626 lire for general administration, 12,837,000 lire for pensions, 1,505,300 lire for various services, and 5,977,704 lire for the cadastral survey; 154,330,377 lire for the cost of collecting revenues, monopolies, lotteries, etc.; 29,734,216 lire for expenditure *d'ordre*; 4,848,922 lire for extraordinary expenditure of the Ministry of Finance; 16,207,565 lire

for the Ministry of Foreign Affairs, 16,184,565 lire being for ordinary and 23,000 lire for extraordinary expenses; 40,782,445 lire for the Ministry of Grace and Justice, 40,759,375 lire being for ordinary and 23,070 lire for extraordinary expenses; 46,546,164 lire for the Ministry of Education, 45,535,100 lire being for ordinary and 1,011,064 lire for extraordinary expenses; 70,773,115 lire for the Ministry of the Interior, 11,987,656 lire being for general administration, 7,635,000 lire for pensions, 1,061,480 lire for sanitary service, 16,034,188 lire for police, 27,403,388 lire for prisons, 945,520 lire for various services, and 4,344,258 lire for extraordinary expenses; 28,163,738 lire for ordinary and 50,327,017 lire for extraordinary expenditure of the Ministry of Public Works; 64,380,819 lire for the Ministry of Posts and Telegraphs, 64,308,303 lire being for ordinary and 81,516 lire for extraordinary expenses; 265,915,283 lire for the Ministry of War, 264,445,283 lire being for ordinary and 1,470,000 lire for extraordinary expenses; 115,425,848 lire for the Ministry of Marine, 111,039,848 lire being for ordinary and 4,386,000 lire for extraordinary expenses; 12,752,015 lire for the Ministry of Agriculture, Commerce, and Industry, 9,609,110 lire being for ordinary and 3,142,905 lire for extraordinary expenses.

The estimated ordinary revenue for 1899 was 1,661,456,980 lire, and the extraordinary expenditure was estimated at 35,334,375 lire; total, 1,696,791,355 lire. The estimated ordinary expenditure for 1899 was 1,573,235,729 lire, and the extraordinary expenditure 113,557,680 lire; total, 1,686,793,409 lire, showing 37,264,164 lire of surplus effective revenue, offset by 18,080,518 lire of deficit in the construction of railroads account and 9,185,700 lire in movement of capital, leaving a net surplus of 9,997,946 lire. The total receipts for 1898 were 1,731,728,371 lire, and the expenditures 1,732,833,944 lire, leaving a deficit of 1,105,573 lire, compared with a surplus of 126,932 lire in 1897 and 409,078 lire in 1896 and a deficit of 58,855,904 lire in 1895. The total interest paid on the national debt in 1899 was 590,562,883 lire, and amortization 1,182,759 lire.

The Army.—The Italian army under the law of June 28, 1897, is composed of the permanent army, the mobile militia, and the territorial militia. Service in the permanent army begins at the age of twenty, and lasts for carabinieri and all noncommissioned officers five years with the colors and four years on leave; for others, two or three years with the colors and five to seven years on leave; then three or four years in the mobile and seven years in the territorial militia. Those not drawn for active service are attached to the permanent army for eight or nine years, to the mobile militia for three or four years, and to the territorial militia for seven years, and in the first two years they undergo a training that lasts from two to six months. Men of a third category are enrolled in the territorial army for the whole of their nineteen years of service, and are required to undergo a month's instruction and serve in time of war on garrison duty or as the last reserve of the army. Out of 396,824 recruits examined in 1896 there were 108,326 rejected, 90,849 put back for a year, 94,695 drawn for active service, 1,681 assigned to the permanent army on leave, and 92,273 enrolled in the territorial militia. Young men of education may serve as volunteers for a year on payment of a certain sum. The army consists of 12 corps, with headquarters at Turin, Alessandria, Milan, Placentia, Verona, Bologna, Ancona, Florence, Rome, Naples, Bari, and Palermo.

The peace effectives in 1899 were 141 officers of the general staff; 237 staff officers in the army corps; 7,110 officers and 163,017 men in 346 infantry battalions and 88 district companies; 889 officers and 24,217 men in 144 squadrons and 24 depots of cavalry; 1,600 officers and 18,202 men in 204 field batteries, 78 artillery companies, and 40 companies of train; 524 officers and 9,039 men in 66 companies of engineers and 10 of train; 661 officers and 2,655 men in 12 sanitary companies; 166 officers and 2,134 men in 12 commissariat companies; 1,165 administrative officers; 611 officers and 24,190 men in 12 legions of carabinieri; 327 officers and 547 men in the military schools; and 183 officers in the veterinary corps; total effectives, 13,614 officers and 244,001 men, with 47,006 horses.

In time of war armies will be formed of 3 or 4 *corps d'armée* and a division of cavalry. The war strength of the land forces in 1899, comprising only men who have received military instruction, was 36,225 officers, 244,001 men of the active army, 545,340 men of the permanent army on leave of absence, 355,250 men of the mobile militia, and 298,730 men of the territorial militia; total, 1,479,546 men of all ranks in the first category. In the second category there were 339,170 men, and in the third category, composed mostly of men without any military instruction, there were 1,683,490.

The Navy.—The Italian navy in 1899 contained the Andrea Doria, Dandolo, Duilio, Italia, Ruggiero de Lauria, Lepanto, Francesco Morosini, Re Umberto, Sardegna, Sicilia, Ammiraglio Saint-Bon, and Emmanuele Filiberto—all battle ships of the first class, built between 1876 and 1897, ranging from 9,800 to 15,900 tons, the first two and oldest turret ships carrying 4 10-inch guns; the next five armed with 4 17-inch guns in barbettes, and having 10-inch or 18-inch armor on the sides; the three next carrying 4 13½-inch guns, and having 14-inch armor; and the last two carrying 10-inch guns and plated with 10-inch armor. There were under construction the Regina Margherita, Benedetto Brin, and Principessa Elena, of 13,500 tons. The Vettor Pisani and Carlo Alberto, of 6,500 tons, are armored cruisers, carrying 12 6-inch and 6 4.7-inch quick-firing guns, and engined to steam 20 knots. The Marco Polo, displacing 4,600 tons, has a speed of 19 knots. The Varese, Giuseppe Garibaldi, and Francesco Ferruccio are new armored cruisers being built, the two former to replace others of the same name that were sold to the Argentine Republic and Spain, each having a displacement of 7,400 tons, with a quick-firing armament of 4 8-inch, 10 6-inch, and 6 4.7-inch guns, and a speed of 20 knots. Of third-class squadron vessels there are the Affondatore, Ancona, Castelfidardo, Maria Pia, and San Martino, ironclads of earlier types, having less than 6 inches of armor, a light armament, and a speed of 12 or 13 knots. There are 30 other fighting ships inferior to these, but still classed as effective. The torpedo fleet consists of 6 boats of the first, 94 of the second, 38 of the third, and 6 of the fourth class. The personnel of the navy in 1899 consisted of 1,546 officers, 18,174 seamen, and 5,455 marines, gunners, torpedists, mechanics, telegraphists, etc., on shore.

Navigation.—The total number of vessels entered at Italian ports during 1898 was 104,254, of 29,739,348 tons, of which 37,673 were steamers, of 26,861,724 tons, and 66,581 were sailing vessels, of 2,877,624 tons. Of the steamers 15,122, of 16,708,462 tons, were engaged in ocean commerce, 7,014 of them, of 7,260,259 tons, under the Italian flag, and 8,108, of 9,448,203 tons, under for-

eign flags. Of the sailing vessels 9,080, of 632,915 tons, were engaged in ocean commerce, 7,824 of them, of 514,552 tons, under the Italian flag, and 1,256, of 118,363 tons, under foreign flags. The coasting steamers numbered 22,551, of 10,153,202 tons, of which 20,895, of 8,271,076 tons, were Italian and 1,656, of 1,882,126 tons, foreign. Of sailing vessels in the coasting trade the entries numbered 57,501, of 2,244,709 tons, of which 57,304, of 2,215,070 tons, were Italian and 197, of 29,639 tons, foreign. The total number of vessels cleared during 1898 was 104,009, of 29,743,734 tons, of which 15,148, of 16,799,768 tons, were steamers engaged in long voyages and 9,062, of 640,473 tons, sailing vessels engaged in long voyages, 22,531, of 10,008,505 tons, were coasting steamers, and 57,268, of 2,234,958 tons, were sailing vessels in the coasting trade.

The Italian commercial marine on Jan. 1, 1899, numbered 5,872 sailing vessels, of 526,827 tons, and 366 steamers, of 259,817 tons.

Commerce and Production.—Over 70 per cent. of the total area of Italy—20,238,000 hectares out of 28,658,900—is productive, and 3,773,449 hectares more are utilized to some extent, while 4,647,451 hectares, a little over 16 per cent. of the whole, is totally unproductive. Agriculture, however, is in a backward condition. Farms are usually small, and a large proportion of them are cultivated on shares. The production of wheat in 1897 was 30,630,000 hectolitres; of Indian corn, 21,074,000 hectolitres; of rice, 6,430,000 hectolitres; of wine, 25,959,000 hectolitres; of olive oil, 1,290,000 hectolitres; of tobacco, 6,210,000 kilogrammes; of cocoons, 36,726,000 kilogrammes. The production of wheat in 1898 was 47,000,000 hectolitres. There were 550,048 persons employed in raising silkworms in 1895, and 172,000 in the preparation and manufacture of the product. The production of silk in 1897 was 2,916,000 kilogrammes. The forests are generally under the control of the Government. They cover 4,093,000 hectares, and produce firewood, charcoal, timber, and other products worth 88,000,000 lire per annum, not including chestnuts, which are cultivated in orchards covering 412,000 hectares. The area of the vineyards is 3,462,000 hectares; of olive plantations, 1,034,000 hectares. The number of lemon and orange trees is 17,085,000. The value of cereals, pulse, hemp, flax, wine, fruits, and other agricultural products is 2,639,000,000 lire a year; and of animals, wool, milk, cocoons, and other animal products 1,424,000,000 lire, making with the forest produce a total of 4,151,000,000 lire, not counting minor and accessory products, such as vegetables, mushrooms, poultry, eggs, and the like, of which about 88,000,000 lire worth are exported every year.

The special imports of merchandise in 1897 were valued at 1,192,138,168 lire, and the exports of articles of Italian produce and manufacture at 1,092,719,241 lire. The principal imports were raw cotton of the value of 110,628,804 lire; coal, 97,971,789 lire; wheat, 78,680,520 lire; raw silk and unbleached twisted silk, 68,318,100 lire; hides, 42,290,140 lire; timber, 35,090,513 lire; machinery, 33,519,782 lire; fish, 31,556,200 lire; wool, 31,151,090 lire; horses, 29,121,300 lire; leaf tobacco, 21,404,740 lire; raw sugar, 21,038,836 lire; coffee, 19,481,353 lire; linen and hemp yarn, 11,660,760 lire; pig iron, 11,103,885 lire; refined petroleum, 11,035,696 lire; cheese, 7,864,990 lire; indigo, 5,797,200 lire; printed cotton cloth, 3,558,060 lire; olive oil, 3,098,050 lire; cotton yarn, 2,982,343 lire; rice, 2,889,085 lire; silkworm eggs, 2,050,500 lire; dyed cottons, 1,513,266 lire; railroad materials, 1,467,648 lire; bleached cotton cloth, 1,212,

530 lire; unbleached cotton cloth, 791,594 lire. The exports of raw and thrown silk were 270,376,300 lire in value; wine in casks, 58,479,100 lire; olive oil, 57,859,944 lire; raw hemp and flax, 44,156,233 lire; fresh fruit, 39,761,242 lire; sulphur, 34,098,568 lire; eggs, 32,558,900 lire; silk waste, 24,200,050 lire; coral manufactures, 23,849,160 lire; fresh and salted meat, 15,398,440 lire; skins, 15,095,280 lire; cattle, 14,816,940 lire; dyes and tans, 12,191,043 lire; zinc ore, 10,650,000 lire; cereals, 8,390,520 lire; rice, 7,639,045 lire; plaited straw, 6,179,640 lire; hogs, 3,672,389 lire; cocoons, 3,027,030 lire; cotton, 1,698,680 lire; horses, 1,184,150 lire; lead ore, 806,990 lire.

The total value of merchandise imports in 1898 in the special commerce was 1,413,300,000 lire, and of the exports 1,203,600,000 lire. The imports of precious metals were 3,500,000 lire, and exports 19,600,000 lire. The transit trade amounted to 127,900,000 lire. The special commerce was divided among the different countries as follows, values being given in lire:

COUNTRIES.	Imports.	Exports.
Great Britain	00	116,600,000
Germany	00	191,900,000
Austria-Hungary	00	148,900,000
United States	00	107,200,000
France	00	146,000,000
Switzerland	00	186,800,000
Russia	00	10,800,000
Argentine Republic	00	28,800,000
British India	00	20,000,000
Roumania	00	2,800,000
Belgium	00	28,900,000
China	00	1,300,000
Turkey in Europe	00	28,500,000
Spain	00	8,800,000
Egypt	00	25,000,000
Brazil	00	16,800,000
Netherlands	00	12,700,000
Greece	00	6,800,000
Sweden and Norway	00	2,000,000
Turkey in Asia	00	1,700,000
Malta	00	9,800,000
Australia	00	2,500,000
Rest of America	00	22,800,000
Rest of Africa	00	11,800,000
Rest of Asia	00	1,700,000
Rest of Europe	00	2,900,000
Total ..	1,413,300,000	1,203,600,000

Communications.—The railroads of Italy had a total length of 15,643 kilometres on Jan. 1, 1898. The length of telegraphs was 43,376 kilometres, with 162,831 kilometres of wires. The number of internal dispatches in 1897 was 8,181,987; of international dispatches, 2,044,776; of service dispatches, 106,258; total, 10,671,388. The number of letters sent through the post office was 171,703,000 in the internal, 42,617,000 in the external, and 3,825,000 in the transit service; of postal cards, 67,502,000 internal, 6,646,000 foreign, and 310,000 transit; of newspapers and circulars, 261,310,000 internal, 24,844,000 foreign, and 2,168,000 transit; of domestic money letters and postal orders, 12,108,000, remitting 1,179,680,000 lire; of foreign, 1,024,000, remitting 117,153,000 lire; in transit, 3,000, remitting 965,000 lire.

Politics and Legislation.—Gen. Pelloux, a Liberal of the moderate type in his political affiliations, but not a party man, was selected by the King to be Minister of the Interior and chief of the Cabinet when the Marchese di Rudini was forced to retire and a Republican and Socialist agitation had to be dealt with that threatened the existence of the dynasty, supported secretly as it was by the great irreconcilable nonvoting Clerical party, that strives for the restoration of the temporal power of the papacy. Gen. Pelloux was an energetic soldier, who had no experience in political or parliamentary management.

He had no party majority behind him, and was obliged to construct one, as Depretis and Rudini had done, by holding out inducements to the political chiefs who use their following in the Chamber for the purpose of securing advantages for themselves or for their adherents or section. When the Marchese di Rudini retired at the end of June, 1898, he had in preparation a bill to arm the Minister of the Interior with extraordinary powers for the purpose of combating the revolutionary forces at work in the land which had stirred up the recent sanguinary riots at Milan. Gen. Pelloux took up the task of carrying through this repressive legislation, but the ministers postponed its introduction, hoping to win the confidence of the Left by a successful foreign policy. The French commercial convention was generally approved by their supporters and by the independent and hostile factions of the Left. It was the first measure taken up when the Chamber met on Jan. 25, 1899, and was ratified by a vote of 226 to 34 on Jan. 28. The Republicans and Socialists voted for it as constituting a step toward a political reconciliation and alliance with France, and for that reason they and their Radical allies renewed their attacks on the triple alliance, and watched with jealous distrust the developments of the Mediterranean naval understanding or agreement with England.

The Chamber authorized the putting into circulation of the silver coins that had been locked up in the vaults of the state banks and the retirement of the one and two lira notes issued to supply their place, precautions having already been taken to prevent the exodus of the Italian coins by an international agreement depriving them of their legal-tender quality in other states of the Latin Union, and restricting their circulation to Italy alone. The reissue of the silver pieces in the place of the small treasury notes was equivalent to the abolition of forced currency, since the bank notes of five lire and upward were already by law convertible into metallic money on demand, although this law could not be enforced so long as the amount in circulation was so redundant as to expel gold by forcing it up to a premium. The Government would not promise to accept the remobilized silver currency in payment of customs dues except in very limited sums. The Chamber debated for several days in the early part of February the question of declaring vacant the seats of Deputies De Andreis and Turati, who in the summer of 1898 had been sentenced by military tribunals to imprisonment with loss of civil rights. The groups of the Left endeavored to extract from the Premier a pledge in favor of a general political amnesty, and, insisting on retaining full freedom of action in regard to the exercise of royal clemency, he had to rely on the support of the Conservatives, now united under the lead of Baron Sonnino, rather than on that of the normal majority. The vote declaring the seats of the convicted Socialist Deputies vacant was 220 to 50. A monster petition was presented in favor of amnesty, but the Chamber by 197 votes to 77 declined to force the hand of the Government. Many of the followers of Zanardelli separated themselves from the ministerial majority, and the groups of Giolitti, Rudini, and Crispi offered only a conditional support. Gen. Pelloux found that to carry a public-safety bill he must sever himself from his former supporters and accept the alliance of the Conservatives. The new taxes proposed by the Government were unpopular among the people, and were opposed by Radicals and Conservatives alike, especially in the north

of Italy. The Right and the Center opposed the financial policy of the Government generally. The Senate manifested hostility to the Government, and especially to Signor Fortis, the Minister of Agriculture, by rejecting the latter's bill to establish municipal grain stores from which peasants could borrow at seed time, repaying the loan in kind with interest after the harvest. The King declined to accept the resignation of Signor Fortis, which he tendered after this affront. A bill exempting salaries of officials from taxation was so altered by Senate amendments that the Government withdrew the measure. The discussion of the public-safety bill began in the Chamber in the middle of February. After a debate lasting three weeks it was accepted in principle, although with qualifications from Giolitti and other leaders that rendered the ultimate fate of the bill extremely doubtful.

The sale of the cruisers Varese and Garibaldi to the Argentine Government in 1898 had evoked strictures upon the previous Minister of Marine, and when Admiral Palumbo announced that 10,200,000 lire of the proceeds of that sale would be applied to the purchase of the protected cruiser Hai-Chi, built by the Armstrongs for the Chinese Government, and capable of steaming 24 knots an hour, he was even more severely criticised, on account of his departure from the policy of constructing the Italian navy entirely in Italian shipyards. The rejection by the Chinese Government of Italy's peremptory demand for a naval station in San-Mun Bay created an awkward dilemma for the Government, and the situation was aggravated by the fact that Great Britain formally supported the Italian demand. The disavowal and recall of the Italian minister at Peking, who had conducted the negotiations maladroitly, saved the diplomatic situation, but it did not help the ministry; and when Admiral Canevaro attempted to justify his action by divulging confidential communications that passed between members of the preceding Government on the subject of Chinese enterprise, he committed a fresh offense. The followers of Zanardelli, Giolitti, and Rudini were hostile to all Chinese expansion, and all parties showed disapproval of the methods pursued by the Government.

Without waiting for a vote from the Chamber, Gen. Pelloux and his colleagues tendered their resignation on May 2, deeming it more patriotic to acknowledge a rebuke affecting their political conduct rather than allow the future policy of the Government in China to be compromised by a vote of the Chamber. The Republicans and Socialists protested strongly against the action of the ministry in resigning without a hostile vote, as they had before when ministers resorted to the same expedient. In their eyes it was only a device for prolonging extraparlimentary government, and preventing the formation of a ministry supported by a constitutional majority. Admiral Canevaro was willing to resign his portfolio in order to leave the Chinese question unprejudiced, but Gen. Pelloux insisted on the collective responsibility of the Cabinet. Gen. Pelloux, whose services King Umberto was unwilling to lose while the danger of revolution still existed, was commissioned to organize a new Cabinet. He consulted with Baron Sonnino, and, as the latter was unwilling to enter a ministry in which he did not himself have the responsible direction of the Interior Department, a new combination independent of the Left was not easy to bring about. The Conservative leader at last persuaded the Marchese Visconti Venosta to take the portfolio of Foreign Affairs, and on May 14

a new Cabinet was constituted as follows: Premier and Minister of the Interior, Lieut.-Gen. Luigi Pelloux; Minister of Foreign Affairs, Marchese Emilio Visconti Venosta; Minister of Justice, Conte Bonasi; Minister of the Treasury, Prof. Paolo Boselli; Minister of Finance, Pietro Carmine; Minister of War, Lieut.-Gen. G. Mirri; Minister of Marine, Rear-Admiral G. B. Bettolo; Minister of Public Instruction, Prof. Guido Bacelli; Minister of Public Works, Pietro Lacava; Minister of Agriculture, Commerce, and Industry, Antonio Salandra; Minister of Posts and Telegraphs, Marchese di San Giuliano. This Cabinet was the opposite of its predecessor in political principles. Besides the Premier, two Moderate Liberals were retained from the outgoing Cabinet, Prof. Bacelli and Signor Lacava. All the new ministers were either Extreme or Moderate Conservatives. The Liberals and Radicals of all shades were indignant at the disregard of parliamentary principles shown in the formation of a ministry opposed to the indicated majority, although the Conservative Cabinet of the Marchese di Rudini had furnished a precedent in 1896 by allowing the Radicals who followed Cavallotti to shape its policy.

The Chamber, which had adjourned during the ministerial interregnum, reassembled on May 25. Signor Zanardelli insisted on resigning the presidency of the Chamber, and on May 30 the Government, with the support of the Moderate Left and the entire Right, elected its candidate, Signor Chinaglia, by 223 votes against 193 cast for Signor Zanardelli. The Rudinians rallied to the support of the Government when the Marchese Visconti Venosta gave a pledge not to undertake any steps in China without consulting Parliament. The accounts for the year showed a small surplus, and Signor Boselli promised economies sufficient to avoid the imposition of new fiscal burdens. The condition of industry and agriculture was unusually prosperous, and therefore the usual incentives to revolutionary disturbances were absent. In the municipal elections that took place in June the Socialists and the irreconcilable Clericals were victorious, owing partly to the determination of the Government to push through the public-safety bill, which the Socialists and Radicals obstructed at every stage of its progress. The Government amnestied political prisoners, but only partially, leaving the political and civil disabilities of the liberated prisoners still in force.

The obstructive tactics of the Extreme Left in opposing the public-safety bill led to scenes of violence and turmoil. Proposals to amend the rules could no more be discussed than the public-safety bill. The Prime Minister made scarce an attempt to check the turbulent disorder, but waited until the extremists had demonstrated completely the impossibility of proceeding with parliamentary discussion. Then, on June 22, the Government prorogued Parliament for six days, and on the following day promulgated the public-safety bill by royal decree, announcing that it would have the force of law on July 20, thus leaving a sufficient interval to secure a vote of indemnity from Parliament. The bill empowered the police to forbid public meetings for reasons of public order. A month's imprisonment or a fine is the penalty for infraction of the police orders, and a similar penalty is prescribed for those who carry or show seditious emblems in public. Associations tending to subvert by force the Constitution of the state or social order may be dissolved by ministerial decree, against which appeal may be taken. Persons who reorganize dissolved societies, though under another name,

are liable to three months' imprisonment. Public servants who by previous agreement strike work are liable to three months' imprisonment, and ringleaders in strikes of railroad, post-office, telegraph, gas, or electric-light employees are punishable with six months' imprisonment. The press law was altered so as to make the writer of an incriminating article and his collaborators amenable to the law as well as the responsible editor, who has often proved a man of straw, and when the authors are brought to punishment the nominal editor escapes. Proprietors and printers of newspapers are made jointly liable with writers and editors for damages, costs, and fines inflicted in connection with publications contained in their newspapers. The law of libel is mitigated in case retraction is made in the press prior to prosecution, the maximum penalty being reduced for such cases to 2,000 lire fine or imprisonment for six months. The publication of libel proceedings is forbidden except in cases affecting public officials or members of Parliament in the exercise of their public functions. Proceedings for *lèse-majesté* affecting foreign sovereigns can only be undertaken by authority from the Minister of Justice, and the penalties shall only be inflicted at the request of the foreign sovereigns themselves, and proceedings for defamation of foreign diplomatic representatives accredited to the Quirinal shall only be undertaken on the initiative of the diplomatists affected.

The clauses in the new law relating to the suppression of public meetings and seditious emblems and the dissolution of subversive societies embody the rules of action that ministers have followed in recent years; the one dealing with strikes of public servants is copied from the English law on the subject. The new law was submitted to the Chamber on June 28, with the explanation from the Premier that it was still subject to modification or amendment. He declared that the Government would interpret compliance with his request to refer it to a committee as equivalent to a bill of indemnity. Many members who censured the conduct of the Government and considered the promulgation of the law by royal decree a violation of the Constitution nevertheless were willing to grant a bill of indemnity, in order to avoid a ministerial crisis on a grave constitutional question. After a spirited debate, the motion to refer the decree to a committee was carried by 208 votes to 138. The opponents of the act, who regarded it as a blow at representative institutions and a denial of guaranteed popular liberties, were determined to prevent it from obtaining the sanction of Parliament. On June 30, when President Chinaglia declined to call the roll on the adoption of the minutes, the Socialists protested against his violation of the standing orders, and seized the voting urns to prevent further proceedings. The Conservatives rushed down to the floor to stop them, and the sitting ended in a physical combat. The Government issued a royal decree closing the parliamentary session. The public-safety bill was thus left to acquire the force of law without parliamentary sanction, although the Court of Cassation on former occasions had refused to recognize legislation by decree. Decrees enacting urgent financial legislation have been allowed, but not decrees affecting the liberty and property of citizens. The Government refrained from putting the law into execution, and thus gave the Court of Cassation no occasion to examine and pronounce upon the constitutionality of the decree.

The people of Italy were inclined to view the

acts of the Government with different eyes when agriculture was profitable and industry developing and flourishing than they were in the previous year, when dear bread and lack of employment caused distress and despair among the working classes everywhere. Parliament has come to be regarded as the arena of personal ambitions, and the people regarded the mistakes of the bluff and honest soldier at the head of the Government more leniently than they did the artifices and evasions of the subtle politicians. The vigorous crusade against abuses that have been the canker of Italian political life and the disgrace of former administrations won the secret approval of the Premier's bitterest opponents. The shielding of lawbreakers and criminal associations, the suspicion of corruption and bribery and the participation in dishonest speculations, the prostitution of the powers of the Government to purposes of private gain, and especially connivance in lawlessness and crime for the sake of votes, are charges that have been brought against Deputies and ministers, and they have not been able to clear themselves. Gen. Pelloux let the prefects and local officials understand that they were expected to discharge their duties without fear or favor and without interference from the Deputy of the district or regard to electoral consequences. In Sardinia, where black-mailing brigands have long subverted the law and filled the public offices with their accomplices, Gen. Pelloux, after first accompanying the King on a visit to the island, set the public forces in motion, and by a single well-planned and rapidly executed stroke crushed the criminal organization. Besides leaders and members of the bands, the mayors of six communes and several noblemen and landowners were among the 300 persons arrested, all in the night of May 14 in 20 communes of the province of Sassari. Some were charged with being members of illegal associations, others with being accomplices and harborers of criminals. Several commercial associations in league with the criminals were dissolved. The bandit chiefs and assassins who at first escaped were caught with the aid of the honest people whom they had terrorized, and were brought to justice for their crimes. In proceeding against the Mafia in Sicily the Minister of the Interior had a more intricate and difficult task. The more flagrant excesses of Sicilian lawlessness had been abated by other premiers, Sicilians themselves, who had risen to power by means of the personal ascendancy that the conditions of the island enable a skillful leader to gain over the mass of the people. When Crispi was Premier, and before the bank scandals were revealed to the public, the director of the Bank of Sicily, Signor Notarbartolo, made a report accusing officials of the bank and Palizzolo, Deputy for Palermo, of dishonest use of the bank funds. This confidential report disappeared from the ministry and was transmitted to the persons implicated. Upon discovering this Notarbartolo resigned, and was succeeded by the Duke della Verdura, a friend of Crispi and of Palizzolo. The mismanagement of the new director occasioned an outcry, and when a demand arose for the reinstatement of Notarbartolo the latter was murdered. One Fontana was arrested for the murder; but police, witnesses, and the judicial authorities showed such anxiety to free him and to screen Palizzolo, the supposed instigator of the crime, that Gen. Mirri, who was then commander of the Sicilian army corps, believed that they were all guilty or afraid. When the Marchese di Rudini, another Sicilian, succeeded Crispi as Premier and Minister of the

Interior, the case was not allowed to come to trial. Gen. Pelloux ordered the investigation to be resumed, in consequence of which Fontana was rearrested and railroad officials suspected of abetting him were arrested also. Palizzolo, whom the previous Government had decorated, was denounced and taken into custody on the charges of instigating murder and receiving stolen funds of the bank, 15 Sicilian witnesses at the former police inquiry were charged with perjury, and all were removed and brought to trial in Milan, remote from the influence and terrorism of the Sicilian Mafia.

When Parliament reassembled on Nov. 14 Signor Boselli was able to present the most satisfactory statement of the finances of the Government that had ever been made. The cost of the Government of Italy as a first-class power has been such a crushing burden as to make the people sometimes almost regret unification. In spite of grinding taxation, the national debt has grown by the accretion of annual deficits. Baron Sonnino, who became Minister of the Treasury in 1893, was able to maintain a financial equilibrium for two years, and his successors for two years longer. Minister Vachelli in 1898 gave up the struggle, and for 1899 predicted a deficit of 15,000,000 lire, to be followed in 1900 by one of double that amount. Signor Boselli's economies and the improvement of trade altered the situation. The closed accounts for 1899 showed that the revenue had exceeded the estimates by 42,000,000 lire and the receipts of the preceding year by 30,000,000 lire, so that, notwithstanding 26,000,000 lire of unforeseen expenditure, there was a surplus of 15,000,000 lire on June 30, 1899. Receipts in subsequent months reduced the estimated deficit for 1900 by one half, and promised, if the same rate of increase should be maintained, to turn it into a surplus of 12,000,000 lire. The improved receipts were of the most gratifying kind, coming from railroad traffic, posts and telegraphs, stamps, salt, and tobacco, showing increased activity of business and greater spending power among the masses of the people. Warrants were issued for the arrest of the Socialist Deputies who had overturned and carried off the urns on the last day of the spring session. They were liable to penal servitude for interfering with the legislative proceedings by force, but just as they were about to be tried the decree summoning Parliament was published, restoring their parliamentary immunity and quashing the proceedings. The King's speech at the opening of Parliament, promising a bill for the alleviation of taxes weighing on the poor, was a shrewd and stirring appeal to all parties to restore the normal working of representative government in the face of dangers on which all were agreed and in furtherance of prosperity in which the whole people participated.

Colonies.—The colony of Eritrea, on the Red Sea coast of Africa, has an area of about 88,500 square miles and 450,000 inhabitants. It is administered by a civil governor under instructions from the Minister of Foreign Affairs. The expenditures for 1898 were estimated at 18,130,000 lire, of which 2,630,000 lire were raised by customs duties and local taxation and 15,500,000 lire were contributed from the Italian treasury. The total expenditure of the Italian Government on its African possessions from the occupation of Massowah in 1882 to the end of 1897 was 352,353,786 lire. The nomadic tribes raise camels, cattle, sheep, and goats, and supply meat, butter, and hides for export. Pearls and pearl shells of the value of more than 1,000,000 lire a year

are obtained from the waters near Massowah and in the Dahlak archipelago. Most of the foreign trade is carried on by Banyan merchants from Bombay. The imports by sea and land were valued at 28,442,551 lire in 1896. The colonial budget for 1899 amounted to 10,622,400 lire, of which 7,757,900 lire were for the colonial troops and 2,864,500 lire for administrative and other expenses. The revenue collected in the colonies was 2,491,600 lire according to the estimates, and the difference of 8,130,800 lire was supplied from the Italian treasury.

By the treaty made with the Negus of Abyssinia at Adis Abeba on Oct. 26, 1896, Italy restored Tigre to Abyssinia, renouncing all claims to a protectorate over that empire and the sover-

eighty asserted over Somaliland, except a strip of coast 180 miles wide. The Italian territory, including the sultanate of Obbia, has an area of about 100,000 square miles, with a population estimated at 400,000. The administration of the Benadir coast has been intrusted to a commercial company for the term of fifty years. There were 3,764 vessels, of 166,129 tons, entered at Massowah in 1898, and 3,758 vessels, of 166,009 tons, cleared. The length of telegraphs was 1,229 kilometres; of railroad, 24 kilometres. The colonial troops consist of 222 carabinieri, 600 chasseurs, 300 artillerymen, 297 engineers, and 304 train, with 6 battalions of native infantry, 2 native batteries, and 1 native squadron; total strength, 185 officers and 6,547 men in 1899.

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JAPAN, an island empire, east of the continent of Asia, between the possessions of Russia and those of the United States, extending from north latitude $21^{\circ} 48'$, near the Philippines, to $50^{\circ} 56'$, near the Kuriles, and from east longitude $156^{\circ} 32'$ to $119^{\circ} 20'$. Of the 4,000 islands known, with an area calculated at 161,401 square miles, about 500 are inhabited, the majority of the people living on Hondo or the main island. Minami-tori-shima, or Southern Bird island (possibly Marcus island), 600 nautical miles east of the Bonin group, discovered in October, 1897, has been claimed and occupied by the Japanese Government.

Politically, the empire is divided into 47 districts and 705 subdistricts. There are 44 large cities and 14,782 cities and villages. The Emperor, Mutsuhito, is the one hundred and twenty-second in the traditional line of Mikados, which has a historic basis of about fifteen centuries. The heir apparent, Yoshihito, born Aug. 31, 1879, was proclaimed heir to the throne Aug. 31, 1887, and received the title of Crown Prince Nov. 3, 1889. He is betrothed to the Princess Sada, fifteen years old, his cousin, the third daughter of Prince Kujo.

Besides the imperial residence, there are 4 detached palaces in Tokio—3 in Kioto and 1 in Hakone—10 imperial places of sojourn, and 2 imperial gardens. Only male descendants, born either of the Empress or of the imperial concubines, can succeed to the throne. The Emperor shares legislative power with the Imperial Diet, which consists of two houses, the upper house having 316 peers and imperial nominees and the lower house 300 members elected by male voters, who must pay a land tax to the value of 5 yen annually or an income tax of 3 yen. (A yen is worth 50 cents.) The former number of 510,000 franchise holders is thus increased to more than 2,000,000. The fourteenth annual meeting of the Diet took place on Nov. 22, 1899. Since 1870 40 ministries have come into existence, the average duration being about seven months, none surviving more than twenty months. The first session of the Diet under the Constitution began Nov. 29, 1890. The Diet was dissolved by the Government five times, and there have been six suspensions because of "unreasonable opposition" to the Government. No House of Representatives has yet served out its full term of four years. Nevertheless there has been, on the whole, steady progress. Most of the work in the Diet is done in committees, and government by party is now practically the rule. In the three months' session closed March 10, 1899, the lower house dealt with 284 measures, of which 174 were pre-

sented by the Government, and 230 were passed. The Emperor's Cabinet consists of the 10 heads of departments. In addition, he has his Privy Council of 20 veteran statesmen, practically a body of great importance, especially in the formation of new cabinets. Below this central administration, and directly under the control of the Emperor, are the four provincial governments—the prefecture of the police of Tokio, department of colonization for Hokkaido, or the Northern Islands, the Fu and Ken (prefectures and districts), and the government of the island of Formosa. In 1897 65,502 public functionaries received salaries amounting to 17,104,226 yen, the number of officials since 1886 increasing 52 per cent. and the total of the yearly salaries 78 per cent. More than 15,000 officers in the army and navy make the total personnel 80,000, and the total of salaries 24,000,000 yen, or a cost to the people of about 57 sen (100 sen make a yen) per head for official service. The number of officials has increased 40 per cent. and the amount of salaries 50 per cent. since the war with China. The total population of the empire is more than 46,000,000.

Finances.—Japan adopted the gold standard Oct. 1, 1897. By the end of 1898 all silver yen had been withdrawn from circulation, amounting to 45,580,000. The loss incurred in connection with the rates of silver had been 5,500,000 yen, but the profits resulting from the subsidiary coin (27,560,000 chiefly in Japan and Korea, and 47,520,000 sold in Shanghai and Hong-Kong) were 5,650,000. The Minister of Finance reported in November, 1899, that the gold monetary system has worked excellently. The accounts for the year 1897-'98, now settled, show an ordinary revenue of 124,222,879 yen, of which 98,047,487 was for ordinary expenditure and 9,647,640 used for payment of the public debt, leaving a surplus of 16,527,752. In 1898-'99 the figures for these four items were as follow: 132,508,434, 11,327,183, 7,622,717, and 13,618,534. For the years 1899-1900 the figures are: 178,558,944, 134,495,192, 6,467,609, and 37,596,143. The items of the last two years given above are still in the budgetary stage. The budget for 1900-1901, submitted to the House of Representatives Nov. 25, 1899, show: Ordinary revenue, 192,230,000; extraordinary revenue, 44,480,000, making a total of 236,710,000. For ordinary expenditure, 148,950,000; extraordinary expenditure, 85,390,000; total, 234,340,000—the surplus of 2,360,000 to be applied to prison improvement and educational purposes. Of the extraordinary revenue, 23,750,000 come from the Chinese indemnity and 17,330,000 by loan. On

June 1 a foreign loan of 10,000,000, at 90 per 100, at 4 per cent. interest, was floated in London, and the money has been paid. The work of reassessing taxable value of land was completed in August, 1899, making a reduction of 148,500,000 yen. The total expenses of the Chino-Japanese War of 1894 were 200,475,508 yen, of which 164,520,371 yen were for the army and 35,955,137 for the navy. The war revenue raised amounted to 225,230,127 yen, among the items of which are: Domestic loans, 116,804,926; taken from indemnity, 78,957,165; from accumulations of revenue surplus, 23,439,086; revenue from occupied territory, including Formosa, 1,550,104. The actual expense for arms and ammunition was 21,250,000, or 10 per cent. of the total outlay, and for rewards 7,182,194, the Japanese receiving from the Chinese 100,000,000 more than was spent in direct outlay.

In the banks of Japan, Dec. 31, 1898, the deposits amounted to 324,570,418 yen; loans, 321,149,058; bonds and securities, 106,214,857; securities on loans, 321,149,085. In 1898 there were 1,700 banks, having a total paid-up capital of 223,000,000 yen, the sum for the disposal of business averaging to each about 265,000. In August, 1899, 188,709,749 of paper currency was in circulation. In ten years, since 1877, the price of 40 commodities has risen from 100 sen to 170 sen.

Resources.—The estimated total resources of Japan are 7,898,000,000 yen, based on statistics for 1894 and 1895. On the latest statistics the estimate is 15,093,000,000. Of the total area of the land, 103,300,272 acres, 669,536 belong to the Government and 34,630,736 to the people. The gross annual product of the land, no account being taken of Government property, is 28 yen, and the net produce 14 yen per acre. Only 13,730,706 acres of arable land, yielding 36 yen net per acre, are owned by the people. The number of horned cattle is 1,091,360, and of horses 1,477,021, the value of both kinds being 75,000,000 yen. Railways, telegraphs, and aqueducts are valued at 90,000,000 yen, shipping at 98,000,000, mines at 405,000,000, and marine products at 272,000,000. Personal property, reckoned at 24 yen per head, is appraised at 1,028,000,000. The average rice crop is 200,000,000 bushels, the crop for 1899 falling 800,000 bushels below the average. The annual consumption is about 5,000,000 bushels greater than the average yield, and rice is still a delicacy rather than a necessity to most of the rural population. Much of Japan's food supply has to be imported, as population increases faster than the food capacity. In 1899 fresh oil fields were discovered and worked in Echigo, and new and profitable gold fields have been opened in Yezo. In Italy the public burden for each person is 21 yen; in Japan it is 4.

The Army.—At the end of 1898, when the recruits for that year had been drafted into the ranks, there were in the active army of Japan 11,726 officers and 80,013 rank and file. The figures for the infantry were 8,266 and 51,208; for the artillery, 1,635 and 12,811; for the cavalry, 646 and 2,532; for the engineers, 583 and 1,089; for land transport train, 596 and 1,473. There are in the first reserve 8,894 officers and 105,104 men; in the second reserve, 8,583 officers and 62,537 men; in the supernumeraries, 64,303 men; a total of 17,477 officers and 231,944 men. The total enrollment of soldiery is 341,160, distributed in the 7 divisions and depots, the Imperial Guard of more than 12,000 men being in Tokio. Heretofore the artillery and cavalry have not been brigaded, but 2 brigades of 3 regiments of cavalry and 2 brigades of 4 regiments of field artillery each have

been formed. The garrison artillery now occupy the forts which, at 9 great centers, guard the coast. The building and equipment of these are in the most approved modern style. Col. Arisaka has greatly improved the field artillery, which uses a smokeless powder of native invention. Only 15 per cent. of the soldiers are illiterate, 40 per cent. have a common-school education, and 27 per cent. are fairly able to read and write and know some arithmetic. In small arms the Japanese formerly used Enfields and Sniders, but since 1883 they have had the Murata rifle, a clever adaptation by a Japanese colonel of several systems. In 1886 the Murata rifle was improved. In 1890 it was converted into a repeater, but the troops in the Chinese war, with the exception of the Guards and the Fourth Division, used the 1-round rifle. In 1897 the Arisaka rifle was adopted, and the Japanese claim that this arm is better than any used in Europe. Half the army is now equipped with this light, simple, 5-round magazine gun.

The Navy.—In September, 1899, the Japanese navy consisted of 8 first-class battle ships, 5 afloat and 3 building, 2 second-class battle ships or armored cruisers, 20 cruisers, 10 coast-defense ships in three classes, 4 dispatch vessels, 10 torpedo destroyers, and 30 torpedo boats. The *Hatsute*, launched on June 27, and contracted to be ready for sea by March, 1899, has a displacement of 15,240 tons, the guaranteed speed being 18 knots. The navy yards at Yokosuka, Kure, and Sasebo have dry docks and first-class equipment, and on the new ships are the fullest resources known to modern naval science. In September, 1899, there were in the active Japanese navy more than 20,000 men, of whom 701 were officers, from admiral to cadet midshipmen, 212 engineers, 175 medical officers, 15 pharmacutists, 187 paymasters, 61 officers in the construction department, and 6 in the pilot, making a total of 1,413 officers.

Trade.—The old order of low customs tariff, established June 25, 1886, gave place at the beginning of 1899 to the new system of higher duties. The customs duties in 1894 amounted to 5,881,024 yen, and in 1898 to 8,360,689 yen. The total foreign trade for the year 1898 amounted to \$216,245,195, of which \$141,041,725 were imports and \$84,603,470 for exports. From January to July, 1899, the exports amounted to 106,630,021 and the imports to 11,522,342 yen, the first half of the year being always the principal time for imports and the second half for exports. The estimates of the total export for 1899 aggregate 200,000,000 yen, or double the volume of six years ago. The trade between the United States and Japan in 1873 was: Exports from Japan, 4,200,000 yen; imports to Japan, 1,000,000 yen; and in 1898, exports, 47,000,000; imports, 40,000,000 yen. Japanese articles sent to us are raw silk (25,000,000 yen in 1898), tea, *habutai* (light, summer silk), silk fabric, and fancy matting. The staples of American imports are machinery, iron, petroleum, cotton, flour, and tobacco. The imports from the United States in 1898 amounted to 6,874,531, and in 1898 to 40,001,092 yen, the increase being due largely to cotton, 7,500,000 yen; flour, 1,000,000 yen; tobacco, cigarettes, and electric equipment making up the rest of the increase. In 1899, of 3,147,855 boxes of Wakayama oranges, 150,000 were sent to the United States. The tonnage of Japanese vessels in October, 1899, was 734,622, or five times more than the tonnage in 1885. More than half of the vessels of over 1,000 tons (149 in number) belong to the Nippon Yusen Kaisha, or Japanese Ocean Navigation Company. Twenty-two new ports were opened

on the day the new treaties came in force, and the trade in August and September amounted to 3,257,100 yen. At the end of 1898 the number of spindles in the cotton factories of Japan was 1,108,404, or 200 per cent. more than six years ago; but the competition of spinning mills in Shanghai and other causes have depressed the industry in Japan.

The purpose of the Japanese is to gain the markets of China. The trade between the two countries, which in 1893 amounted to 48,707,540 yen, increased until at the end of 1898 it reached a total of 95,440,348. Exhibitors to the Paris Exposition send goods valued at 2,217,352 yen.

Communications.—Emigration from Japan continues to be active. About 75,000 Japanese live abroad—10,000 in America, 2,000 in Russian Siberia, 28,000 in Hawaii, 30,000 in Korea, and 1,000 in China. At home the building of railways, telegraphs, and telephones continues brisk. Nearly 500 miles of railway were opened in the fiscal year 1898-'99, and in October, 1899, there were 3,534 miles opened for travel, the development in Yezo being remarkable. In 1895 there were 2,272 miles opened, showing an increase in three years of 33 per cent. On the Government lines (860 miles) the accidents during the year ending March 31, 1897, were 148 killed and 94 wounded; on private lines (1,340 miles), 204 killed and 169 wounded. On the water, at the end of 1897, there were 1,684 steamers, of 486,459 tons; of sailing ships on foreign models there were 171, of 27,412 tons. Fifty-seven steamers, aggregating 10,698 tons, and 18 sailing vessels, aggregating 2,422 tons, were built in Japan in 1897. The number of telegraphic messages to every 100 of the population is 26, and the use of telephones is increasing. There are 5 electric trolley lines in the empire.

Formosa.—The past year was signalized by many outbreaks of rebellion and raids of the head-hunting savages. In 1898 303 attacks were made by the aborigines, and 635 peaceful people lost their lives. The great demand for heads, to supply the offerings to their gods made at religious festivals by the hill tribes, is the cause of the raids being more numerous in March and September. The bandits and rebel leaders were unusually active in 1898, but in April, 1899, the famous chief Ko Ti-at, on the advice of former rebel Liu, made his submission. Between Jan. 1 and April 1 2,297 surrendered. In 1898 vessels entering the ports of Formosa numbered 4,140, with a tonnage of 254,330. Of these, 3,943 were Chinese, 135 British, 18 Japanese, 30 German, 6 Norwegian, and 4 American, the trade being in exports 12,827,189 and the imports 16,879,190 yen. The Formosa-Amoy cable has been bought from China by Japan for 100,000 yen. The revenues in 1897-'98 aggregated 8,000,000 yen; but the estimate for 1899 was 10,000,000, nearly balancing the normal expenditures. The income is derived from the opium, tobacco, and land tax. Though the pest has been very destructive to the natives, the health of the Japanese garrison has been excellent, the sick not exceeding 5 per cent., and the Third Division not losing a man in their sojourn of many months. The total revenues from 1895 to the end of the fiscal year 1899-1900 were 33,000,000 yen, and the expenditures 116,000,000, the extraordinary expenses being for fortifications and garrisons, the troops and gendarmes costing 8,500,000 yen annually, the military expenses for the rest of the empire being 28,500,000 yen. For the survey and reassessment of the land 15,000,000 yen are to be paid.

Education and Religion.—There are 12 Shinto, 41 Buddhist, and more than 30 Christian sects

in Japan. The Shintoists claim about 15,000,000 believers, the Christians 40,000, and the remainder are Buddhists, Confucianists, or agnostics. The Government forbids the teaching of religion in any school under its care, and discriminates against all private schools by exempting from military conscription the students in the Government schools. Against this policy, which tends to kill all private instruction or rivalry, the Christian educators have made formal protest. In 1893 there were 2,021 private schools; in 1899 the number was 1,677; but the number of pupils in those remaining increased from 139,595 to 152,714 in 1897. In 1893 there were 23,573 schools of all kinds, and in 1897 there were 26,776. The number of instructors increased in the same time from 62,850 to 82,545, and the number of students from 3,316,200 to 4,016,003. Eighty-one per cent. of the school-age male children and 51 per cent. of the female children attended in 1897. In 1897 the expenditure for public schools was 18,669,049 yen, for which the people were taxed 12,545,243 yen, the difference being obtained from the income of the schools. The General Government appropriated 1,522,509 yen to support 2 universities, 2 higher normal, 6 high, 5 technical, 1 school for the blind and dumb, 1 school for training technical teachers, and 1 library. Literary activity is chiefly noticeable in the translation of serious foreign literature and of the new codes of law into foreign languages, and in periodical literature, but there is little of original production. Of the 100 Chinese students studying in Japan, half have been sent by the Government.

Statistics show that crime and immorality, especially by females, is on the increase. In 1896, of 184,062 criminals, 53,896 were incarcerated for gambling, the practice being widely extended and the corruption of the police being secured on a regular plan. A careful study of the social evil shows that of every 80 Japanese females between the ages of fifteen and thirty-five 1 is dissolute, there being in Japan proper: *Geisha* (artists, singing girls), 30,000; licensed prostitutes, 50,000; concubines, 10,000; unlicensed public women, 80,000; total, 170,000. The extra-marriage relations of the Japanese were strongly discussed in 1899.

Politics and Events.—The deaths during the year included the Princess Sada, youngest daughter of the Emperor, Jan. 11; Count Katsu Awa, Jan. 21; Baron Nobuyuki, an eminent diplomatist and Christian, March 27; Prof. Yatabe and Prof. Burton; besides 8,977 natives from dysentery out of the 45,996 attacked. The discovery by Dr. Kitasato of the bacillus causing the disease and the successful treatment of many patients are events of note. On May 14 207 miners in Fukuoka were killed by an explosion of gas. The thirteenth session of the imperial Diet ended March 14. Japanese judges were sent abroad to study foreign judicial systems. The new treaties went into effect July 17, and great rejoicing marked the advent of Japan to political equality with the nations of Christendom. The city of Sendai, founded by Date Masamune, celebrated its three hundredth anniversary May 23. The historic Uruga of Perry days is again made famous by the building of two great docks for steamers and sailing vessels, one being 451 feet long. The excavation was begun in 1896 and finished in November, 1898. The other, 500 feet long, is nearly finished. The dedication of the granite memorial to the late Guido F. Verbeck, erected by the Japanese and raised by public subscription, took place Nov. 13. Under the new treaties 20 foreigners at once applied for diplomas

to practice as physicians, 16 being Americans and 4 British, and 8 British and 1 German have asked for pharmacist licenses, all of which were at once granted. In the old "three cities and five ports," 43 foreigners have practiced medicine. One of the most destructive storms known for years visited the country on Aug. 28 and 29, the number of killed and wounded being in the hundreds, and the houses and vessels injured in the tens of thousands. The first murder case under the new treaties, the judges being three Japanese, was that of an American named Miller, who killed one man and two Japanese women. The court dismissed the plea of inherited insanity and the argument of brain deterioration through drinking Japanese whisky, and sentenced the prisoner to capital punishment. Mr. H. W. Denison, for many years in the service of the Foreign Office of Tokio, in September received audience of the Emperor and investment with the First Class Order of the Rising Sun, the first ever given to any one not of the diplomatic corps.

JEWS. The final act of the Dreyfus drama was played at Rennes, Aug. 7, where the new trial was held. On July 1 the prisoner had returned to France from the Devil's isle, a revision of his trial having been decided upon early in June. The proceedings aroused international interest, heightened on Aug. 14 by the attempted assassination of M. Labori, Dreyfus's counsel. The verdict given by five of the seven military judges was, "Guilty of treason." It was added that they did not desire him to be obliged to undergo again the ceremony of degradation before the army, that there were "extenuating circumstances," and that he should be pardoned, on the ground that his years of solitary confinement in consequence of his first sentence had sufficed as punishment. On Sept. 19 he was pardoned by President Loubet on the recommendation of the ministry, he and his friends agreeing not to appeal. He and his family then took up their residence at Carpentras, in southern France. The result of the trial aroused considerable indignation; meetings were held in the chief cities of the globe, and representatives of all classes and creeds protested, while the press was unanimous in its condemnation of the verdict. But it was soon felt that peace with or without honor was best for France, and with the rehabilitation of Lieut.-Col. Picquart and the quashing of the trials against Émile Zola the rest of the world had to be satisfied.

The profound regret expressed at the death of Baroness Clara de Hirsch de Gereuth in Paris, on April 1, proved the universal reverence felt for her, which was intensified when it was known that by the provisions of her will she had not only maintained her husband's benevolent projects, but devoted practically her whole private fortune to philanthropy, not restricted to those of her own creed. Several million dollars were given to strengthen the Hirsch colonies in Canada and New Jersey and for the erection of workingmen's homes in upper New York, while charities and educational societies in France, England, and Austria-Hungary were richly endowed.

The third Basle Zionist Congress, Aug. 15, was well attended, the greater number of delegates representing Russian, Roumanian, and Galician Jews. It was said that the movement was making satisfactory progress. The chief aim appears to have shifted to colonization of Palestine, the idea of a Jewish state being less emphasized.

The subscriptions to the Colonial Bank were announced as meeting expectations, and the

Sultan of Turkey was to be sounded as to the purchase price for a tract in Palestine to be a home of refuge for persecuted Jews. At the same time the Sultan excludes Jewish immigrants from right of residence beyond thirty days unless they become Turkish subjects, the decree being intended to prevent any immigration *en masse* of destitute aliens. The outrages in Moravia and Bohemia, due to political causes, culminated in the arrest of a half-witted Jewish lad at Polna, Bohemia, on the charge of killing a Christian girl for ritual purposes. The trial resulted in a verdict of guilty, but there is every indication that it will be appealed and the prisoner declared innocent. Such accusations are rare—the latest occurred in Hungary in the early eighties—but on an inflammable population, grossly ignorant and bigoted, the tools of designing demagogues and Jew baiters, the blood accusation is always a pretext for mob law and plunder. It has stirred the flames of anti-Semitism in Austria, despite the public protest of Emperor Francis Joseph, and has been made the subject of Government inquiry that has not allayed but increased the agitation. With Czech and German at each other's throat, the village Jew is a convenient scapegoat, and many wealthy Jewish landowners and manufacturers have removed to Vienna and Buda-Pesth. Spirited protests against the verdict and the charge in general were made by eminent Christians—priests, professors, advocates—and papal decrees of the Middle Ages denouncing the blood accusation as baseless were spread in all directions. The issue is still in doubt, and the political uncertainty and confusion add to the perplexities of the situation. In Germany there has been a gratifying lull in anti-Semitism. In England the presence of delegates of the American Council of Jewish Women at the International Congress of Women in London made a significant incident. In Roumania the Government has sought to check educational progress among the Jews by continued limitation of the number of Jewish children who are permitted to attend the schools of the land.

Among the honors received, T. C. Asser, the Dutch jurist, was one of Holland's representatives at The Hague conference. Prof. S. Schechter was appointed Professor of Hebrew at the University of London, while Dr. A. Neubauer retired as librarian of the Bodleian with a pension for life. Louis S. Cohen was elected mayor of Liverpool. Rev. Dr. Adler, chief rabbi of the Jews of England, received the degree of LL. D. from the University of St. Andrew's. The year closed with marked amelioration of the condition of the Jews of Algiers, anti-Semitism meeting with a decisive check.

In America Temple Sinai, of Chicago, celebrated on Jan. 15 the twenty-fifth anniversary of the establishment of Sunday services, which have been adopted in a few congregations, but as yet have not met with very pronounced success. On March 14 the eightieth birthday of the Rev. Dr. I. M. Wise, of Cincinnati, was celebrated, and on May 13 the seventieth birthday of the Rev. Dr. M. Jastrow, of Philadelphia. On Nov. 12 the Rev. Dr. B. Szold had a public celebration of his seventieth birthday. On April 23 the Chicago Home for Jewish Orphans was dedicated: on May 18 the New York Hebrew Charities Building, the gift of Solomon Loeb. On May 7 the San Francisco Mount Zion Hospital was opened, and on Dec. 10 the Denver Home for Consumptives. On May 19 a National Conference of Jewish Charities was organized in Cincinnati, and in December 24 constituent societies joined

the conference. The third summer assembly of the Jewish Chautauqua began on July 14 at Atlantic City, and a varied programme of lectures and debates was followed. Synagogues were dedicated in New York, Chicago, Brooklyn, El Paso and Dallas, Texas, Peoria, Huntsville, Ala., Atlantic City, Newark, and New Brunswick, N. J., Denver, and Cleveland.

Among new books issued were Israel Abraham's Jewish Literature, Dembitz's Jewish Services in Synagogue and Home, Rev. Dr. B. Drachman's translation of S. R. Hirsch's Letters of Ben Uziel, Mr. Zangwill's They that Walk in Darkness, and Mrs. A. Cohnfeldt Lust's A Tent of Grace.

In Philadelphia work was begun on the new building of the Young Women's Union and the Lucien Moss Home for Incurables. In New York ground was broken for the new Young Men's Hebrew Association building, the new Mount Sinai Hospital, the Beth-Israel Hospital, and the Emanu-El Sisterhood Home, while the new Baron De Hirsch Trade School and the Clara de Hirsch Working Girls' Home were opened, the Hebrew Infant Asylum entered new quarters, and the Newark (N. J.) Hebrew Orphan Asylum opened its new edifice. The National Farm School, at Doylestown, Pa., added appreciably to its accommodations. The Agricultural School, at Woodbine, N. J., under the auspices of the Baron De Hirsch Trust, made rapid advance. Agricultural work is being steadily promoted, and neat homes are being erected in East Orange, N. J., with a view of settling families from the New York ghetto. At the same time a beginning has been made in building improved tenements in the upper part of New York city. The beneficent work of the Hirsch Trust is thus developing every year.

An organization of Hebrew veterans of the Spanish war was formed in New York, and about 150 attended the initial meeting.

The receipts of the Educational Alliance of New York were \$34,961.19; expenses, \$39,320.16. During the year the aggregate attendance was 1,602,104.

The statistics furnished by the United Hebrew Charities of New York, whose twenty-fifth anni-

versary was celebrated in November, throw full light on Jewish immigration since the Russian exodus began, as well as the work of the largest organization of its kind in the United States. During the year ending Oct. 1 the sum of \$136,332 was disbursed and \$149,859.53 received; 29,088 immigrants were registered, making a total of 430,470 since the records were begun in 1885. Out of 5,515 applicants for work, 5,183 found employment. According to the annual report of the Commissioner General of Immigration for the year ending June 30, 1899, 37,415 Jewish immigrants arrived, only 519 being excluded under the law. Russia and Austria-Hungary furnished nearly all of the number admitted. Of these, 12,276 were skilled workmen, 197 were professional men, while 5,253 were of various occupations (laborers, farmers, servants, etc.); 5,637 could neither read nor write—not a very large proportion considering that 8,987 were under fourteen years of age.

In December Prof. Schechter, of Cambridge, England, signified his acceptance of the call to be director of the Jewish Theological Seminary of New York.

At the eighth annual meeting of the American Jewish Historical Society, held in New York on Dec. 26, among the papers presented were Dr. Cyrus Adler's, on Further Documents relating to the Inquisition in Mexico; Prof. Hollander's, Additional Information respecting Haym Solomon; Prof. Gottheil's, Early Settlement of the Jews in the Island of Barbadoes; Leon Hiltner's, The Jews of South Carolina prior to 1800, A Prominent Jewish Patriot of Revolutionary Times, and Notes on American Jewish History; Max J. Kohler's, The German-Jewish Migration to America, The Jews and the American Antislavery Movement, II; Miss Annette Kohn's, Jewish Topography of New York; Rev. George A. Kohut's, New Documentary Materials for the History of the Marranos in Mexico; Rev. Dr. H. P. Mendes's, Notes on the Early Newport Jews; Some Early Jewish Printers in America, and A Frankist Petition addressed to Archbishop Lubinski in 1759, published in Mexico.

K

KANSAS, a Western State, admitted to the Union Jan. 29, 1861; area, 82,080 square miles. The population, according to each decennial census, was 107,206 in 1860; 364,399 in 1870; 996,096 in 1880; and 1,427,096 in 1890. By the State census of 1895 it was 1,334,688; in 1899 it was estimated at 1,425,112. Capital, Topeka.

Government.—The following were the State officers in 1899: Governor, William E. Stanley; Lieutenant Governor, Harry E. Richter; Secretary of State, George A. Clark; Treasurer, Frank Grimes; Auditor, George E. Cole; Attorney-General, A. A. Godard; Superintendent of Education, Frank Nelson; Commissioner of Agriculture, F. D. Coburn; Adjutant General, Hiram Allen, succeeded on Feb. 23 by S. M. Fox; Superintendent of Insurance, Webb McNall, succeeded on March 17 by W. V. Church; Oil Inspector, E. V. Wharton, succeeded on April 1 by S. O. Spencer; Grain Inspector, W. W. Culver, succeeded on April 1 by A. E. McKenzie; State Printer, W. Y. Morgan; Board of Charities, P. H. Dolan, G. W. Kanavel, Reuben Vincent, Grant Hornaday, Edwin Snyder; Bank Commissioner, J. W. Breidenthal; Labor Commissioner, W. L. A. Johnson.

All the elected officers are Republicans. Chief Justice of the Supreme Court, Frank Doster, Populist; Associate Justices, W. A. Johnston and W. R. Smith, Republicans.

Population.—The compilations from returns of assessors and county clerks show that in 1899 the State had 109 cities and towns with 1,000 or more inhabitants, while in 1898 it had but 103. The whole gain in population was 35,335. The largest gain among cities was in Topeka, which increased 2,714. There are 1,682 Indians in the State, of whom 736 are not on reservations, are self-supporting and taxed. Four small tribes live on Government reservations.

Finances.—The following, from the statement of the chairman of the House Ways and Means Committee, shows the estimated income and expenses of the current biennial period:

"The total amount appropriated by the Legislature was \$3,873,090. Of this sum \$444,000 was for deficiencies which should have been met by the Legislature of 1897. This brings the appropriation for the two fiscal years beginning June 1 down to \$3,429,090. The receipts from the various departments, exclusive of taxes, for the two

years beginning June 1 will be \$537,485. This sum deducted from the total appropriations leaves \$3,335,605, the amount to be raised by taxation.

"The Legislature appropriated \$444,500 for new buildings and repairs, as follow: New insane asylum, \$100,000; Topeka Insane Asylum, \$30,000; Winfield Imbecile Asylum, \$40,000; State University (chemistry), \$55,000; Topeka Reform School, \$21,500; Osawatimie Insane Asylum, \$50,000; Beloit Girls' School, \$25,000; Agricultural College, \$25,000; Hutchinson Reformatory, \$72,000; Olathe Deaf and Dumb School, \$1,000; normal school, \$20,500; Penitentiary brick plant, \$4,500.

"To ascertain the appropriations for the current expenses of the State for the next two years the item for new buildings should be added to the item of deficiencies and the sum of the two items (\$888,500) deducted from the total appropriations, leaving \$2,984,590, which is less than the amount appropriated two years ago.

"The last valuation of taxable property was \$330,000,000. It is estimated that the valuation of the State this year will be raised to \$350,000,000. The 5-mill levy fixed by the Legislature on this valuation will raise \$3,500,000. The total appropriations deducted from the amount of revenues leaves a surplus of \$164,395.

"The levy of 1897 was 4.2 mills. The Legislature of 1899 found it necessary to increase the levy four fifths of a mill in order to meet the deficiencies.

"This does not include, of course, the quarter-mill special levy for the completion of the state-house."

Following are the appropriations for the several State institutions for 1900: Blind Institute, \$23,694; Deaf and Dumb Institute, \$49,090; Forestry Station, \$3,820; Winfield Imbecile Youth, \$52,460; Girls' Industrial School, \$34,410; Soldiers' Orphans' Home, \$34,890; Hutchinson Reformatory, \$102,315; Emporia Normal School, \$45,500; Osawatimie Asylum, \$186,494; Penitentiary, \$236,791; State boards, \$45,000; State Soldiers' Home, Dodge City, \$44,400; executive and judicial, \$330,000; Topeka Insane Asylum, \$179,360; Topeka Reform School, \$64,754; University of Kansas, \$140,000; Manhattan Agricultural College, \$59,000.

The valuation of property for assessment in 1899 aggregated \$327,175,107, of which about \$218,000,000 was real and about \$58,000,000 personal.

The claims of the State against the Government for recruiting, equipping, and maintaining soldiers for the Spanish war amount to \$37,784.84.

There are claims against the State on account of the Quantrell raid during the civil war; those acknowledged as legitimate amount to \$77,000. The House voted to pay them during the last session, but the bill failed in the Senate.

Education.—The enrollment for the year at the State University was 1,087. The graduating classes of 1898 and 1899 numbered each about 200. The institution has graduated in all 1,545 students, and has had 7,085 enrolled. A department of mechanical engineering has been established. The necessary yearly expenses of a student vary from \$140 to \$320.

Two of the regents of the Agricultural College were removed in May by the Governor on recommendation of an investigating committee. The charges that were held to be sustained were that by their order the college soup house was operated in violation of law; that they had transacted business without a quorum; that they had

spent more than the amount specified by law and had misappropriated \$200 given for a special use, and had overpaid certain officers. Appeal was taken to the appellate court by the regents who were removed, and the court decided in their favor and against the right of the committee to hear and consider any other charges but those submitted to them by the Governor; furthermore, the lower court decided that the committee must determine the guilt or innocence of the officer, and that it must file the evidence with the Governor. The case was then appealed to the Supreme Court.

The income of the college is about \$80,000 a year, of which only about \$18,000 comes from the State. The class of 1899 numbered 54.

The College of Emporia graduated 14 in June. This institution is to have a new library building, the gift of Andrew Carnegie.

Baker University received more than \$20,000 in gifts the last year. At the annual commencement 91 degrees and diplomas were conferred.

The class at the State Normal School had 85 members.

The school population in 1899 was 496,776. The interest on the permanent school fund for the first half of the year was \$203,678.

The State Board of Education has decided that colleges to be "accredited" so that their graduates may receive certificates to teach must maintain departments of pedagogy.

Charities and Corrections.—A new asylum for the insane was provided for by the Legislature, and a committee appointed to select a site chose one at Parsons, but considerable opposition has arisen to that location.

The Institute for the Deaf, at Olathe, had 230 pupils in 1898-'99. About half are taught articulation, with some degree of success. At the School for the Blind there were 85. The Topeka Insane Asylum had 828 patients, of whom 588 were men.

At the Orphans' Home there were 178 children.

The inmates of the Beloit Industrial School were 119 in number.

There are about 220 boys at the Reform School, at Topeka. A committee appointed to investigate the school reported necessity for radical changes, especially in regard to facilities for training the boys. One of the buildings was burned in June, with a loss of about \$5,000.

The State Industrial Reformatory, at Hutchinson, has about 200 inmates. The building is not yet finished.

The binding-twine plant at the State Penitentiary began operation Dec. 19. It requires a force of 80 men. There are about 920 convicts in all.

Military.—The return of the Twentieth Kansas Regiment from service in the Philippines was celebrated at Topeka, Nov. 2, with great rejoicing. The exercises included a procession, a banquet, and ceremonies at the statehouse, with music, addresses, the presentation of a sword to Gen. Funston, and the return of the battle flags.

The National Guard was reorganized in January, but a new law necessitated another reorganization. Under the present law no one can be mustered in without having passed a physical examination.

Products.—From the biennial report of the secretary of the Board of Agriculture it appears that the home value of the farm products of the two years was \$288,259,096, which was a gain of \$43,465,301, or but slightly less than 18 per cent., over the biennial period immediately preceding. The value of live stock (additional to the farm products) on hand averaged for each

of the two years on March 1 \$207,302,818, being an increase of \$60,797,660, or 41½ per cent. Although no prices were extraordinarily high, the value of the farm and stock products for 1897-'98 exceeded by \$104,262,961 those of 1895-'96.

For 1899 it is shown by reports from townships and official returns of assessors that the value of the year's crops and products aggregates \$169,747,037; the value of live stock is \$133,057,092, making a grand total of \$302,804,129. This counts winter and spring wheat at 43,687,013 bushels, valued at \$22,406,410.34, while the corn crop is given at 225,183,432 bushels, worth more than \$55,000,000. Excepting that of 1889 (273,888,321 bushels), this is the largest crop the State has yet produced, and exceeds in value any preceding crop by \$1,134,627.54. The combined value of the three grains—wheat, corn, and oats—is \$80,888,622.93, or a total increase over the 1898 value of the same crops of \$13,384,621.62.

The value of the mineral products, according to the report for 1898 of the University Geological Survey, was \$10,225,944, and of the smelting products \$16,943,956. The largest items of the former total are coal (\$4,193,160) and zinc ore (\$3,822,769). In 1880 only three minerals—coal, building stone, and zinc—were mined in the State; now there are in addition salt, oil, gas, gypsum, cement rock, and clay.

Banks.—A tabulation of reports from 320 State and 66 private banks of their condition at the close of business on Dec. 2 shows: Loans and discounts, \$21,641,729.45; total deposits, \$26,143,335.81; cash and sight exchange, legal reserve, \$10,744,485.81; rediscounts, \$262,249.58; bills payable, \$147,029.46.

A comparison with the statement of the last report, Sept. 7, shows an increase in loans of \$1,182,930.64; increase in deposits, \$187,065.81; increase in rediscounts, \$71,254; and an increase in bills payable, \$33,120. The legal reserve shows a decrease of \$1,329,737. Reports also show an increase in the investments in bonds and warrants of about \$400,000. The decrease in reserve is due to the large demand for loans from cattle feeders. The banks now hold \$5,500,000 available funds in excess of the legal requirement. Compared with the statement of Dec. 31, 1898, this report shows an increase of deposits of \$3,250,000 and an increase of \$800,000 in cash and sight exchange.

Twenty-two banks were chartered in the first six months of 1899.

Building and Loan Associations.—There are 43 of these associations in the State. Their condition is summed up as follows: Loans on real estate, \$2,766,435.17; loans on stock and other security, \$142,668.41; real estate owned, \$99,854.63; cash due from banks, \$142,105.64. Twenty-five of the 43 associations own no real estate. The total real estate owned by the 43 associations is a fraction over 3 per cent. of total assets.

Railroads.—From statistics of the Railroad Commissioners' office it appears that in 1898 the total mileage operated was 8,889.38 miles, a decrease of 63.17 miles. The gross earnings from operation were \$32,017,240.54; the operating expenses, \$21,600,121.96. The total number of employees, including general officers, was 24,094, and the average daily compensation \$1.92. In 1899 there were 25,185 employees, at an average yearly salary of \$596.58. In a suit where county commissioners raised the valuation of a railroad 30 per cent. above that fixed by the State assessors a district court sustained the commissioners, but the appellate court reversed the decision.

Lawlessness.—A negro charged with the murder of two white men was taken from the sheriff

at Alma, July 9, by a mob and hanged from a telegraph pole. After he had been left for dead the town marshal cut him down and he was taken to the jail, where he recovered consciousness.

Another lynching took place at Weir City, Oct. 30. A negro miner supposed to be the murderer of a bartender with whom he had quarreled was taken from jail by a mob and hanged. The Governor offered a reward for the arrest and conviction of the leaders of the mob.

Foreclosure of Mortgages.—It has been the custom in many cases for persons purchasing land upon which was a mortgage to pay the interest on the mortgage, and the mortgagee would allow the mortgage to run many years, relying upon such payments being sufficient not to bar the right of the holder of the mortgage to foreclose.

The district court of Clay County and the Court of Appeals held that such payments did not keep the mortgage in force, and that the mortgage could not be foreclosed.

The Supreme Court in April unanimously reverses this ruling, holding that where the owner of land, who is in no way liable for the payment of the debt, and did not even take the title expressly subject to the mortgage, pays the interest on the mortgage until just before foreclosure suit is brought, the mortgage may be foreclosed, although all right of action on the note is barred by the statute of limitation.

Legislative Session.—There was a special session of the Legislature from Dec. 21, 1898, to Jan. 9, 1899 (see Annual Cyclopædia for 1898, page 354), and the regular session, extending from Jan. 10 to March 8.

The Auditor refused to pay the bills for the expenses of the special session until its constitutionality should have been passed upon by the courts. The Supreme Court decided that it lies with the Governor to decide when an extraordinary occasion has arisen of sufficient gravity to justify him in convening the Legislature in special session, and that his action is not subject to review by the courts unless the reasons given are obviously frivolous or irrelevant. In the present case it was conceded that the occasion assigned—the demand of the people for legislation regarding freight rates—was sufficient to justify the call.

Among the acts passed at the special session was the "Boyle railroad" bill. This provides for a "court of visitation," consisting of three elective judges, a marshal, a clerk, and a solicitor general. The court was to have original jurisdiction in all difficulties arising in connection with railroad, express, and telegraph companies, to establish rates and classifications, and decide complaints, and it might appoint a receiver for any road that fails to comply with its decrees. The validity of this act was called in question in the United State District Court in November in connection with an application by the Western Union Telegraph Company for an injunction to restrain the Court of Visitation from enforcing an act of the special session reducing the tolls of telegraph companies 40 per cent. This act was declared unconstitutional, because the rates were held to be confiscatory. The constitutionality of the act creating the Court of Visitation was not necessarily involved, but the judge said that in his opinion the court could not exercise judicial powers, and he doubted if it could exercise administrative powers. The Court of Visitation, which consists of L. C. Crum, J. C. Postlethwaite, and W. A. Johnston, were taking measures to appeal the telegraph case at the close of the year.

The law creating the Board of Railroad Commissioners was repealed.

The Australian ballot law was so amended that only one local ticket may be placed on the official ballot under one party appellation.

It was provided that hereafter the office of superintendent of insurance shall be elective, to be filled at the general election of 1900, and each second year thereafter.

Other acts of the special session were:

To tax foreign insurance companies 4 per cent. on Kansas premiums, and American companies not organized under the Kansas laws 2 per cent. on Kansas premiums.

To create a State society of labor and industry, with a secretary who shall perform the duties now devolving upon the Labor Commissioner.

To create a State association of miners, with a secretary who shall perform the duties now devolving upon the Mine Inspector.

To perpetuate the State Schoolbook Commission.

To determine ties in elections in cities of the second class, to be decided by lot in the council, except in cases of ties in elections of councilmen.

To provide for the organizations of associations for the purpose of insuring growing crops against damage and destruction from hail.

To require that 500 members shall be necessary to secure a charter for a grand lodge of any fraternal beneficiary society, and to place all such societies under the control of the State Superintendent of Insurance.

At the regular session the Republicans were in a majority in the House, 93 to 32, and the fusionists in the Senate, 28 to 12. M. A. Householder was President *pro tem.* of the Senate. S. J. Osburn was Speaker of the House and F. M. Benefiel Speaker *pro tem.*

Gov. Stanley was inaugurated Jan. 9. In his first message to the Legislature he made the following recommendations: Establishment of an additional insane asylum; abolition of the Board of Pardons and the offices of State accountant and forestry and labor commissioners; establishment of plants for the employment of convict labor; more liberal appropriations for the Department of Agriculture; payment of costs of mine inspection by mine operators; provision for road improvement; raising of assessments in order to secure the larger revenue demanded by the growing interests of the State; education of neglected children; State aid to industrial schools for negro youth; uniform courses of study in schools; the placing of building and loan associations under the control of the Bank Department, and of all orders and societies doing insurance business under the Insurance Department; honest enforcement of the prohibition law.

A constitutional amendment will be submitted to vote of the people in 1900. It provides that the Supreme Court, which now consists of 3 justices, shall consist of 7. The term of office is to be six years, and the justices are to be elected by the people, except that at the first the Governor is to appoint enough to make up the number to 7.

The antitrust law was strengthened by the prohibition of combination among certain specified interests. Those mentioned in the law who are forbidden to combine to control prices are live-stock men, hay dealers, seed and grain dealers, warehouse men, and railroads. While the meaning of one section is rather vague, attorneys are of the opinion that it even prohibits the dockage of hogs at the stock yards. The penalty for violation of this provision is a fine of \$100 to \$1,000. The second provision of the law prac-

tically declares the stock exchange a trust, and legislates against it. The penalty in this case is a fine of \$1,000 to \$5,000. The third section prohibits any agreement, expressed or implied, by which it is stipulated that grain, seeds, or hay shall not be shipped by the producer or local buyer unless accompanied with warehouse receipts, or that the same shall in any manner be under the control of any warehouse men or agent as a condition precedent to the marketing of said grain. The penalty is the same as that prescribed in the second section. Provision is also made for the enforcement of the law by injunction proceedings. It is made the duty of the Attorney-General to institute both criminal and injunction proceedings against a violator of the act when complaint is made to him by an aggrieved shipper. If any person, company, or corporation can show that its business has been injured by reason of anything declared unlawful or in restraint of trade in this act he shall have a right of action against the person, company, or corporation causing such damage to the amount of three times the original damage.

A committee appointed to visit the Minnesota Penitentiary and examine into the manufacture of binding twine by convict labor, with a view to ascertaining the advisability of establishing such an industry in the Kansas Penitentiary, reported in favor of the plan, and accordingly provision was made for the establishment of a hard-fiber-twine plant, and \$150,000 was appropriated for a revolving fund to be used in the purchase of raw material and for marketing the product, and to receive the proceeds of sale. It was also provided that a plant should be established at the Penitentiary for making bricks for the use of the State. The coal mined by convicts is to be limited in amount to the needs of State institutions. Convict labor may be used for repairing and macadamizing roads.

Several measures were enacted in the interest of education. Provision was made for the disorganization of depopulated school districts and the consolidation of their territory with that of adjacent districts.

A county superintendent must be a holder of a State certificate, or of a first- or second-grade county certificate, or a graduate of an accredited college or normal school, and must have had at least eighteen months' actual experience in teaching.

Boards of education in cities of the first or second class may employ persons holding normal-school diplomas to teach in the schools of said cities without examination by the examining committee of said boards.

Another act provides for the issuing of three years' State certificates to graduates of the School of Arts of the State University, including the course required for the teacher's diploma, or the arts course of any other university or college incorporated under the laws of this State whose course of study shall be approved by the State Board of Education, and which shall maintain the same or equivalent requirements for admission to the freshman class as the University of Kansas, and requiring and maintaining a regular four years' course thereafter for graduation, and which shall maintain a pedagogical department equal to the course for the teacher's diploma at the State University. A life certificate is issued to the holder of such certificate provided he shall have taught two years out of the three.

The uniform text-book law was extended so as to take in books on more subjects than before. Cities of the first class may levy a tax of 8 to 12

mills for teachers' wages and other school expenses.

The political disabilities of ex-Confederate soldiers were removed. Inmates of the Soldiers' Home will be permitted to vote at Dodge City.

The completion of the statehouse was provided for, and the office of statehouse custodian was created.

Canal or irrigation companies are to have the same right as railroad companies to take land by condemnation.

The office of commissioner of fisheries was abolished, and that of fish warden was created.

Townships in counties of fewer than 5,000 inhabitants may maintain fire guards to prevent spread of prairie fires. The poll tax may be paid by work on the guards.

A new law was made for oil inspection. The chief inspector is to be appointed as before by the Governor, and to receive \$1,500. He may have not more than six assistants at \$50 a month and expenses. The fire test of burning fluids is to be not less than 110° F.

It was provided that a commission should be appointed to establish traveling libraries after the plan of New York and other States.

A dairy school is to be established at the Agricultural College; \$25,000 was appropriated for the building and \$9,000 for the equipment and a small dairy herd.

The State University was authorized to make geological surveys of such portions of the State as have deposits of commercial importance.

A general law for corporations was enacted. Dealing in futures was prohibited and the operation of bucket shops.

One of the new laws provided that a tax of 10 per cent. of the premium should be collected from holders of fire-insurance policies issued by companies not incorporated under Kansas laws and not authorized to do business in the State. It gave the Insurance Commissioner the right to demand the privilege of inspecting the policies held under such organizations. In case the policy holder refused to allow such inspection, he rendered himself liable to arrest and a fine of \$100. Three fifths of the tax was to go to the State and two fifths to the city fire department. On a test case the Supreme Court declared the law invalid, as it did not impose a license or privilege or franchise fee, but a tax, and as such violated the constitutional requirement of a "uniform and equal rate of taxation."

The appropriations made by the Legislature are noted under the head of Finances.

Other measures were:

Providing that a deed made by a sheriff under order of court shall be sufficient evidence of legality of sale until the contrary is proved.

Providing for the leasing of unoccupied school lands.

Authorizing county commissioners to pay bounties for scalps of wolves and coyotes.

Providing that a guardian under the laws of any other State or country may sue or be sued in Kansas.

Providing that wills may be probated without testimony of witnesses in case they are insane, dead, or removed to parts unknown.

Making it larceny for a mortgagor of personal property to injure it or sell it without the consent of the mortgagee.

There was a contest in regard to the election of judge in the Twenty-second Judicial District—James Falloon, the fusion candidate, charging that W. I. Stuart, the Republican nominee, was elected by fraud. The contest came to the Sen-

ate, but was not taken up in the regular session. An appropriation of \$15,000 was asked for a special session, and the item was placed in the miscellaneous appropriation bill, from which it was afterward withdrawn and attached as a rider to the executive and judicial appropriation bill. After a deadlock of two days between the Senate and the House, a compromise was effected and an act was passed appropriating \$10,000 for the purpose. The Governor vetoed the bill on the ground that the Senate had had sufficient time and leisure to settle the contest at the regular session. But the extra session was held, the Senate sitting as a contest court with three more than a quorum in attendance, though no Republican members were present. Witnesses were examined and a verdict was rendered against Stuart on the ground that bribery had been used in the election. The office of judge of the Twenty-second District was declared vacant. Mr. Falloon was nominated for it in September, but the Secretary of State refused to file the nomination, and was upheld by the Supreme Court.

Political.—At the county elections in November the Republicans elected 404 of their candidates for county offices, the fusionists 215, the Democrats 5, and 2 independent candidates were elected. Of the 8 district judges elected, 4 were Republicans and 4 fusionists. The general Republican majority was 15,858.

KENTUCKY, a Southern State, admitted to the Union June 1, 1792; area, 44,400 square miles. The population, according to each decennial census since admission, was 220,955 in 1800; 408,511 in 1810; 564,135 in 1820; 687,917 in 1830; 779,828 in 1840; 982,405 in 1850; 1,155,684 in 1860; 1,321,011 in 1870; 1,649,690 in 1880; and 1,858,635 in 1890. Capital, Frankfort.

Government.—The following were the State officers during the year: Governor, William O. Bradley; Lieutenant Governor, W. J. Worthington; Secretary of State, Charles Finley; Treasurer, G. W. Long; Auditor, Samuel H. Stone; Superintendent of Public Instruction, W. J. Davidson; Commissioner of Agriculture, Lucas Moore; Attorney-General, William S. Taylor; Adjutant General, D. R. Collier—all Republicans; Election Commissioners, William T. Ellis, W. S. Pryor, and Charles B. Poyntz; Prison Commissioners, Henry George and Messrs. Fennell and Richardson; Librarian, Pauline Hardin; Mine Inspector, George W. Stone; Chief Justice of the Court of Appeals, James H. Hazelrigg, Democrat; Associate Justices, J. D. White, T. H. Paynter, and J. P. Hobson, Democrats, and B. L. D. Guffy, George Du Relle, and A. Rollins Burnam, Republicans; Clerk, S. J. Shackelford, Democrat.

Finances.—At the close of the year the cash in the treasury amounted to \$1,060,425, and in addition was \$100,000 turnpike stock to the credit of the sinking fund.

The bonded indebtedness amounted to \$3,483,991. Of this \$6,394 is in old issues supposed to be lost, and \$2,477,597 is in educational and normal-school bonds, leaving \$1,000,000 that is payable in 1905 and 1907. Of the floating indebtedness of \$1,572,126 remaining in March, 1898, only \$23,276 remains.

A decision in the Court of Appeals in February was in favor of the State against the Kentucky Chair Company, and involved \$60,000.

Education.—The Auditor's report shows \$1,984,122.35 to the credit of the school fund for the present year. There are 719,654 pupil children as shown by the reports of the school officers, and at \$2.70 each there will be apportioned \$1,943,065.80. The amount to be distributed to

counties, as interest on county bonds, is \$22,918.85; balance to meet expenses of the office and possible corrections in the census, \$18,137.70. The larger resources of the school fund are as follow: To the credit of the school fund for the year ending June 30, 1899, \$265,232.09; sheriffs' revenue, \$1,140,047.46; licenses, \$143,443; annual interest on old and new school bonds, \$138,755.80; tax on railroads, \$101,000; tax on railroad franchises, \$21,000; tax on banks, \$90,000; distilled spirits, \$18,900. The school term in the rural districts is hardly five months of the twelve.

Charities and Corrections.—The expenses of the Eastern Asylum for the fiscal year ending Sept. 30, 1899, exceeded its income by \$2,682.30. This deficit was caused by expending considerable money for repairs of buildings. The report of the treasurer of the Western Asylum, covering the period from Oct. 1, 1898, to Sept. 30, 1899, showed that that institution lived within its income, and had to its credit \$8,860.19. Its expense account embraced about \$11,000, which sum was used for buildings and repairs. The expenses of the Central Asylum have been kept within the per capita allowance, and a surplus of about \$10,000 remains.

The buildings of the Feeble-minded Institute were destroyed by fire during the last administration, but the money realized on the insurance policies was sufficient to construct new ones superior to those burned. Until the present year there has been no separate State institution for juvenile offenders. But the Legislature of 1896 appropriated \$100,000 for building houses of reform for this class. A site was bought near Lexington, and, though the buildings can not be finished till further appropriation is made, they were dedicated in November, and prisoners have been received.

The expenditures for the Frankfort Penitentiary for the sixteen months ending Nov. 30 exceeded its income by \$87,773, and those of the Eddyville Penitentiary for the same period exceeded its income by \$57,076. The three prison commissioners receive under the present law salaries of \$2,000 each.

Railroads.—The report of the Railroad Commission, filed Dec. 1, shows that the railroads have had an exceedingly prosperous year. Two short narrow-gauge roads were built—the Red River Valley, 9 miles, and the Indian Run Railroad, 4½ miles. The Licking Valley Railroad was extended 6½ miles, making the total mileage in the State 3,065. The total valuation of railroad property is \$43,403,918, an increase of \$368,305 over the last assessment. Reports to the board show that 109 persons were killed on the railroads this year, against 125 the previous year.

Insurance.—In January 86 insurance companies doing business in the State were fined \$250 each for alleged conspiracy to combine and control and fix insurance rates.

Several large companies have withdrawn from the State on account of prosecutions in various counties.

A suit apparently involving a new issue was on trial this year, and seems not to have been finally decided. Richard Tate fled from Frankfort in 1888, after robbing the State treasury. As seven years' absence is presumption of death, heirs of the defaulting Treasurer called on the insurance companies to pay the policies he carried. Several of them paid, but the Mutual Benefit Life, of Newark, N. J., refused to do so. It lost in the lower court, and appealed to the Court of Appeals. The company is making its fight on the ground that seven years' absence does not war-

rant presumption of death in the case of a man who is a fugitive from justice.

Decisions.—The laws affecting the taxation of banks were the subject of decisions in the United States Supreme Court in April. The question at issue was the right to levy taxes upon the valuation of franchises or the property of the bank which had been certified by the State board appointed to perform this service. This board was created by an act of the Legislature in 1892, and this legislation was in conflict with the act of 1886, known as the Hewitt act, providing for the taxation of bank stock at the rate of 75 cents on each share of \$100, in full for all State, county, and municipal taxes. The State banks claimed the Hewitt act to be in the nature of a contract, and also attacked the newer law on various grounds. The opinion rendered sustains the act of 1892, thus affirming the opinion of the Kentucky Court of Appeals.

The case of the national bank—the Owensboro National Bank *vs.* the City of Owensboro—involved other points, and in this case the Kentucky Court of Appeals was reversed. The State court had held the law applicable to national as well as State banks, but its holding was upset in this case because of the violation of the Federal statute requiring that the tax upon national banks shall be levied upon the shares of stock in the name of the stockholders.

In a suit to test the constitutionality of the Goebel election law, the majority of the Court of Appeals decided in favor of it, while Judges Guffy, Du Relle, and Burnam dissented.

In April the law under which vagrants were sold on the block for a term of years was declared unconstitutional.

In the State Fiscal Court, April 25, the "convict-parole law," passed in 1884, was pronounced unconstitutional.

Laundries in Louisville resisted the license tax, and were sustained by a local court, but the Court of Appeals reversed the decision. The same court held, in January, that private corporations are subject to the franchise tax. There are nearly 6,000 private corporations in the State which will be compelled to make annual reports and pay a franchise tax.

Lawlessness.—For the past year and a half Clay County has been disturbed by feuds that have broken out in deadly encounters. In quarrels of the White and Baker factions 7 men were killed. In July, 1899, a fight between the Philpots and the Griffins—allies respectively of the Bakers and the Whites—resulted in the death of 5 men and the wounding of others. The Governor issued a statement, Aug. 2, in which, after explaining the course of the trials in local courts and the uselessness of sending militia, he said: "The whole fault in Clay County is a vitiated public sentiment and a failure of the civil authorities to do their duty. The laws are insufficient to enable the Governor to apply a remedy. Such feuds have been in progress more or less for years, and no governor of the State has ever been able to quell them. They have terminated only when their force was spent by one side or the other being killed or moving out of the county."

Under date of Sept. 8 it was reported from London: "News reaches here from Clay County, near the line of Leslie County, that Henry Marcum was ambushed and murdered yesterday, and James Roberts suffered the same fate to-day. In Perry County, farther back in the mountains, there has been a renewal of the French-Eversole feud, resulting in the killing of Phil McComb, a member of the former family."

After the election, Nov. 7, a Louisville paper said: "Following closely upon a series of wholesale murders in the State's 'feud district,' where a man's life is not safe, we are now shown the sickening spectacle of 15 American citizens murdered outright at the polls while attempting to exercise their right of suffrage. That number were instantly killed in election rows and riots in different parts of the State, and the news comes that a dozen more are likely to die."

On Dec. 6 a young negro, Richard Coleman, the confessed murderer of the wife of his employer, was burned at the stake in Maysville, after suffering frightful torture at the hands of a mob. The report said the husband and the brother of his victim fired the pile of wood and kept up the fire, and that none of the crowd was masked, the lynching having taken place in daylight.

The Kentucky Monument at Chickamauga.—This was dedicated with appropriate ceremonies on May 3. In accepting the monument and transferring it to the Government Gov. Bradley made an address, in which he said: "This shaft is dedicated not alone to those who died on this and surrounding fields, but to the gallant survivors who, when the frowning clouds of war were dispelled by the bright sunshine of peace, returned to their homes to repair broken fortunes and are to-day numbered among the best and most distinguished sons of the Commonwealth. Kentucky has evinced no partiality in this evidence of loving remembrance. It carries with it no heartburning, no jealousy, no invidious distinction. It is not an emblem of honor to the victor and reproach to the vanquished, but an equal tribute to the worth of all."

Political.—The campaign for the election of State officers this year was the bitterest probably in the history of the State, and, although the Republican candidates were declared elected on count of the returns, and were inaugurated, contests were entered, on the claim that fraud had been used, which were still unsettled far into the year 1900, after the excitement of the campaign and the subsequent struggles had culminated in the tragic death of Senator Goebel, the candidate of the Democratic party.

The Democratic convention was held in Louisville in June. The contest between the partisans of William Goebel and those opposed to his candidacy was long and determined. A permanent organization was not effected until the third or fourth day, and the nomination for Governor was not made until the sixth day. The principal candidates were William Goebel, ex-Gov. P. Wat Hardin, and William J. Stone. After many ballots had been taken Senator Goebel succeeded in securing the adoption of a resolution declaring that after the twenty-fifth ballot and each one following the candidate showing the least strength should be dropped. This resulted in the elimination of Mr. Stone's name, and on the twenty-sixth ballot, June 27, Goebel was nominated by 560½, against 530½ for Hardin. The completed ticket was: For Governor, William Goebel; Lieutenant Governor, J. O. W. Beckham; Secretary of State, Breck Hill; Attorney-General, R. J. Breckenridge; Treasurer, S. W. Haeger; Auditor, Gus Coulter; Commissioner of Agriculture, J. B. Nall; Superintendent of Public Instruction, H. V. McChesney.

The platform reaffirmed the principles of the party as formulated at Chicago in 1896, favored the nomination of William J. Bryan and the election of J. S. C. Blackburn to the United States Senate, and approved the Cuban war, but de-

nounced the Philippine policy of the Administration. Further the resolutions said:

"We call attention to the incompetency of the present Republican administration in Kentucky; to the abuses and scandals in the management of penitentiaries and asylums while under Republican control, and we commend the wisdom of the last General Assembly of Kentucky in the enactment of laws which secure the wise and economical administration of the penitentiaries and other public institutions of the State under Democratic control; to the increase in the rate of taxation; to the vetoing of all Democratic legislation favorable to the interests of the people and hostile to the oppressions and extortions of organized wealth. We declare that after four years of trial it is well established that the Republican administration is incapable of upholding and maintaining the laws and of preserving peace and order in the Commonwealth, and we especially condemn the present Republican Governor for surrounding the State capital with the military arm of the government in time of profound peace, thus attempting to influence and terrorize the General Assembly, pending the election of a United States Senator.

"We indorse the amendment to the State election law passed by the last Democratic General Assembly of Kentucky over the veto of a Republican Governor. We declare the amendment to be in the interest of fair and honest elections."

A conference was called of the Democrats opposed to Goebel for the purpose of organizing the opposition. It met at Lexington, Aug. 2, and called a State convention, which assembled there Aug. 16. The resolutions that were adopted declare the Louisville nominees not nominees of the Democratic party; demand the enactment of a law giving force and effect to section 151 of the State Constitution, which provides for deprivation of office of any person who to secure his nomination or election has been guilty of the unlawful use of money or other things of value, or has been guilty of fraud or intimidation, bribery or corrupt practice; approve the principles and platform of the Chicago convention of 1896, and Bryan for President in 1900; denounce the Goebel election law; favor the regulation of railroads so as to prevent extortion; demand the abolition of the Chinn book bill; and condemn President McKinley for alleged advancement of the trusts.

The party was called "The Honest-election Democratic party," and the ticket was: For Governor, John Young Brown; Lieutenant Governor, P. P. Johnston; Secretary of State, E. L. Hines; Attorney-General, Lawrence E. Tanner; Treasurer, John Droege; Commissioner of Agriculture, G. W. Vandever; Superintendent of Public Instruction, Rev. E. C. Overstreet; Auditor, Frank A. Pasteur.

The Republican State Convention was held in Lexington, July 12-14. Candidates for the gubernatorial nomination were Attorney-General W. S. Taylor, Auditor Samuel H. Stone, and Judge Clifton J. Pratt. The two latter withdrew, and Taylor was nominated by acclamation.

The ticket was: For Governor, William S. Taylor; Lieutenant Governor, John Marshall; Secretary of State, Caleb Powers; Attorney-General, Clifton J. Pratt; Auditor, John S. Sweeney; Treasurer, Walter R. Day; Superintendent of Instruction, John Burke; Commissioner of Agriculture, J. W. Throckmorton. Candidates for Railroad Commissioners were H. S. Irwin and John C. Wood in two of the districts. In the First District the Republicans made no nomination.

The resolutions declared: "We affirm that the existing election law in Kentucky, enacted by a Democratic General Assembly in 1898 over the objection of our Republican Governor, is viciously partisan, subversive of fairness and honesty in elections, hostile to the principles of free government, removes safeguards which have heretofore protected and guaranteed the right of suffrage, denies to our courts the power to protect voters in this State against the perpetration of fraud at elections, commits broad power to irresponsible commissioners not chosen by or accountable to the people for their acts, and imperils the sacredness, efficiency, and power of the ballot. We therefore set forth as the supreme issue before the people of this State the repeal of this revolutionary law, and the Republican party pledges itself to its repeal and to the restoration of the system under which free and fair elections have heretofore been the rule in Kentucky. We cite the election law, the Penitentiary bill, the McChord railway bill, and many other measures introduced and attempted to be passed by the last Legislature of Kentucky as proof of the type of legislation to which the people of the State will be subjected should the Democratic party come into power under its present leadership, legislation alike hostile to political honesty and purity, and to the material prosperity and advancement of our Commonwealth."

The State administration and the conduct of United States Senator Deboe were commended, trusts were denounced, and the Republican party was congratulated on its legislation for their suppression. The national administration and its policy were approved, and further it was said:

"We believe in popular education and the fostering and improvement of our public-school system, and we favor a just and equitable law by which the cost of books shall be reduced to the lowest price consistent with due regard for their merit. But we are opposed to the school-book law passed last year by the lower house of the Legislature, because under its provisions desired relief will not be secured, but a more complete monopoly will be established."

The convention of the People's party was held in Frankfort, July 27. Some effort was made toward fusion with the Democrats opposed to Goebel, but the sentiment for independent action was too strong, and an entire party ticket was nominated. John Y. Blair was named for Governor; for Lieutenant Governor, W. R. Browder; Auditor, Samuel R. Graham; Treasurer, A. H. Cardin; Secretary of State, Benjamin Keys; Superintendent of Instruction, John C. Sullivan; Commissioner of Agriculture, W. J. Hanna; Attorney-General, John T. Bashaw; Railroad Commissioners, R. H. McMullen, John H. Reed, and W. G. Patrick.

The resolutions declared in favor of Wharton Barker and Ignatius Donnelly as candidates for the presidency and vice-presidency in 1900, and said:

"We heartily sympathize with those honest Democrats and Republicans of Kentucky who refuse to submit to bossism in their several parties; especially do we approve of all efforts to rid Kentucky of the odium of the unfair and disreputable law known as the 'Goebel election law' passed by the recent Democratic Legislature, indorsed by the Democratic convention at Louisville, and to the retention of which the Democratic party of Kentucky stands committed, now on the statute books of this Commonwealth; and we regret to see that Hon. William J. Bryan, for whom the Populists of Kentucky voted in

1896 for President of the United States, by his public indorsement of the ticket nominated at Louisville and the platform there adopted, assumes the responsibility of indorsing the criminal attempts of the corrupt element of Kentucky politics to subvert the ballot.

"We denounce the infamous Goebel election law as a revolutionary and undemocratic attempt to subvert the ballot, to en throne in Kentucky a corrupt political ring, and to practically destroy popular government. Therefore we demand its speedy repeal and the enactment of a law which will preserve inviolate in this Commonwealth of Kentucky the right of a free, untrammelled ballot and a fair and honest count."

The convention named G. W. Reeves for United States Senator.

The Prohibitionists held a convention at Louisville, Aug. 2, declaring for complete legal prohibition of the liquor traffic, demanding the repeal of the Goebel election law, denouncing the State administration, and favoring woman suffrage. Their ticket was: For Governor, O. T. Wallace; Lieutenant Governor, William H. Zeigler; Secretary of State, W. M. Likens; Attorney-General, Gen. James H. Beauchamp; Treasurer, J. R. Pile; Auditor, Rev. Samuel M. Bernard; Commissioner of Agriculture, A. W. Carpenter; Superintendent of Public Instruction, G. E. Hancock.

The Socialist-Labor party made nominations for some of the State offices, as follows: For Governor, Albert Schmutz; Treasurer, James Delaney; Auditor, R. P. Caldwell; Commissioner of Agriculture, Jassem O. Hearn.

As it was feared that the day of election would be marked by rioting, and possibly by bloodshed, so strong was party feeling and so highly wrought the excitement, the State troops were ordered to be prepared for an emergency, and were in attendance in Louisville. The result of the election was for a long time in doubt, and notice was served upon the commissioners in Jefferson County before the official count was finished, Nov. 17, as follows: "For the Democratic candidates we now give notice that at the close of the count and before any certificates be issued we will move the board and all other authorities that may consider this election to declare null and void the election held in the city of Louisville on the seventh day of November, 1899.

"1. Because of the usurpation of William O. Bradley in calling out and illegally using the militia and overawing and intimidating the voters and officers of and at said election and interfering with the progress of said election and with the duties of the officers of said election.

"2. Because S. B. Toney unlawfully usurped power in requesting said William O. Bradley to call out and use said militia for said purpose when said call was entirely unnecessary, and the civil authorities were able and willing to execute any order made by said court.

"3. Because said militia was used for the unlawful purpose aforesaid.

"4. Because said election was not a civil election, but a military election.

"5. Because the said militia was unlawful in every respect and a criminal usurpation of power by said named persons, and thereby the civil power was subordinated to the military power, and an overt act of a treasonable nature against the Constitution of the State of Kentucky was committed."

With the vote of Louisville thrown out, there would have been a plurality for Goebel. It was charged also that ballots cast in some of the strongly Republican counties were on tissue

paper, and the assertion was made that the election should be declared void in those counties. On the other hand, it was declared that the returning boards had thrown out every vote for rejecting which the slightest pretext could be found, and that 25,000 anti-Goebel votes were lost by their rulings.

The official count gave the election to the Republicans, the vote for Governor being reported: Taylor, 193,714; Goebel, 191,331; Brown, 12,140; Blair, 3,038; Wallace, 2,346; Schmutz, 510.

One member of the Board of Commissioners prepared a minority statement, in which he declared his belief that the Democratic candidates were legally elected, and that the use of tissue ballots should have rendered void the election in several counties. He denounced the use of militia on election day as reprehensible and intolerable in an Anglo-Saxon community.

The Railroad Commissioners elected were J. Fletcher Dempsey and C. C. McChord, Democrats, and John C. Wood, Republican.

The Legislature of 1900 stands: In the Senate, 26 Democrats and 12 Republicans; in the House, 59 Democrats and 41 Republicans.

The inauguration of the new State officers took place Dec. 12. Notices of contest were served. It was expected that while those for the two higher offices would come before the Legislature, those for the minor offices would be decided by the election board sitting as a board of contest. Two members of this board having resigned, the State Election Board, or some other Democratic authority, appointed two Goebel Democrats to succeed them, while Gov. Taylor appointed a Republican and an anti-Goebel Democrat, thus further complicating matters.

Meantime, in December, a suit was brought to have a local-option election in Ohio County declared void. One of the minor grounds of contest was the use of very thin or tissue-paper ballots, and it was supposed that the decision in regard to their acceptance would be used in the election contests that were to come. The county election on the local-option question was held to be valid.

An address was issued to the Democrats of the State, Dec. 21, signed by former Senator Blackburn, chairman of the State Campaign Committee, Chairman Young, of the State Central and Executive Committees, and all of the members of those committees, in which they said:

"The Democratic party of Kentucky, through its several State committees, has unanimously declared that the best interests of the party, as well as justice, demand that contests shall be made by all the candidates on the Democratic ticket for the respective offices for which they were nominated."

The contest for the offices of Governor and Lieutenant Governor before the Legislature belongs to the history of 1900.

KOREA, or Cho-sen ("Morning Radiance"), a country in eastern continental Asia. Seaward it fronts Japan, and it lies between China and Russia, separated from the former by Yalu river and the Ever-White mountains, and from the latter along a frontier of 11 miles by Tumen river. No exact census of the population has been taken, but, estimating from the number of houses, there are 13,000,000 to 15,000,000 souls in the empire. Females are in the minority. The three social classes are the *yang-ban* (civil and military), who live by Government employ in idleness or by evading taxes and tolls; the mass of the people, mostly agricultural; and the seven degraded classes. The peddlers and butchers form powerful guilds,

which, though now abolished in form, are very influential, and almost all industry is organized into powerful societies. Buddhism, under ban from 1392 to 1895, and its priests and monks during that period disallowed entrance into cities, is the popular religion, and is now unrestrained. Confucianism is the cult of the literary and official classes. Sorcery and superstitions abound, influencing every action of life. There are many grotesque expressions of these in the sculpture fronting the royal palace, besides the colossal monolith *mir-ycks* (distance posts) near every village, tablets, and stone work of various kinds throughout the country.

Government.—Succession to the throne of the Korean Empire is hereditary, and the edict of the sovereign is law. The written Constitution, in 9 articles—issued in August, 1899—declares the independence of the country, and that for five hundred years Korea has been an absolute monarchy, and that it shall remain so for all time. The other 7 articles asserts in detail his prerogatives of absolutism. Historically, Ki-ja, an ancestor of Confucius, was the founder of Cho-sen (1122 B. C. to 9 A. D.), which gave way to the Three Kingdoms (9-960 A. D.), and these to united Korea, or Korai (960-1392), and this again to Cho-sen, founded by the present ruling dynasty, which in 1864 failed of direct heirs, when the present King, then a minor, was nominated, his father, the Tai-Wen-Kun, practically ruling the country for twenty years. From early ages Korea was China's vassal, and paid tribute, while Japan also claimed her as a tributary. Through the Chino-Japanese War of 1894-'95, and by the treaty of Shimonoseki in 1895, Korea was declared free. On Oct. 14, 1897, at 3 A. M., before the altars of the spirits of the land, the King assumed the title of Emperor and named his realm Dai-Han ("Great Han," in distinction from the ancient San-Han, or "Three Kingdoms"). In administration he is assisted by a Council of State and 9 ministers, presided over by a Premier. The ministers are: Royal Household, Finance, Home Affairs, Foreign Affairs, War, Justice, Agriculture, and Education. In each of the 14 provinces there is a governor, and in each of the 360 districts a magistrate. There is no navy apart from revenue vessels, but 5,000 men are armed and drilled in modern style. Nine ports are open to foreign trade and residence.

Open Ports.—Chemulpo, near the capital, Fusan, in the southeast, and Wonsan, in the northeast, have hitherto been open to foreign commerce and residence, and aliens, mostly nontrading, also have lived in the capital. Mokpo and Chenampo were opened in 1895. On May 1, 1899, 4 new ports, after due survey of the land, were formally opened—Kunsan, on the west coast, south of Chemulpo; Masampo, in the southeast, near Fusan; Sungchin, on the east coast; and the city of Ping-Yang, in the north, as a trade mart. The Russians and Japanese have at Masampo especially taken up land so eagerly and so largely that a collision between these rivals seemed for a while imminent. There are now about 20,000 Japanese in Korea, 2,000 being in Seoul and the majority at Fusan. In the new treaty, published in October, 1899, in which China is called the Middle Kingdom, Korean subjects in China have the full rights of the most-favored-nation subjects, while in Korea no Chinaman can do stationary trade outside the treaty ports. A handsome new bund or sea wall and avenue fronting the water in Chemulpo was opened with a grand celebration in June, 1899, by the Japanese residents, who number 6,000.

Foreign Trade.—The total trade for 1897 was \$11,755,625 in gold, and for 1898 \$8,763,932 in gold. The short crop of 1897, though succeeded by a better one in 1898, made the natives timid about parting with their food supplies, and hindered trade. American imports have increased. In 1897 they amounted to \$400,000 in gold. In 1898 railroad material, \$297,861, and petroleum, \$189,380, were the chief items in the total of \$655,037. In textiles the import of Japanese yarn, used by the native women on their hand looms, increases, while that of shirting decreases, that for 1898 being 500,000 pieces. The Korean's commercial instinct is feeble. He runs easily into debt, and permanently overdraws his account at the bank. Hence the Chinese trader is steadily replacing the native. Japanese and Chinese have acquired so much land, through the foreclosure of mortgages, that the Korean Government fears lest whole cities get into the hands of these aliens. Concessions are granted to American, German, and English syndicates to work gold mines on condition that one fourth the net product be paid to the Korean Government, and these enterprises are doing well. Forty Americans and 1,200 Koreans are employed on the 60 stamps that treat the auriferous rock in the region of Wonsan (or Gensan), including 1,000 square miles. Coal is not yet mined by foreigners, but the surface fuel is bagged at \$90 a ton, mixed with red clay and used in balls, which burn well but are costly. Japanese and Russian companies are licensed to catch whales off the coast. The whales are shot from small steamers, and their carcasses are towed ashore, cut up, and salted, to be sent to Japan as whale beef, which is bought at good prices and eaten. This Japanese interest amounted in 1898 to \$1,750,000, and into Nagasaki alone 2,030,912 pounds of whale meat, worth \$56,470, were imported. The whalebone, being inferior, is sent to Japan for manure. Various minor concessions have been granted to Russians (lumbering, lease of land for whale curing, etc.), Germans, and Americans, native workers having the privilege of steamer service on the Ta-tong river, the Seoul-Gensan telegraph, and the working of coal mines.

Railways.—Surveys for the Seoul-Fusan Railway have been completed by the Japanese, but since the change in the programme of the Russian Manchurian lines nothing beyond survey has as yet been done by the French syndicate. The Seoul-Chemulpo Railway, 25 miles long, standard American gauge, built by Messrs. Colbran & James for James R. Morse, the concessionaire—all Americans—at a cost of \$1,500,000 in gold, is running 4 trains daily between port and capital. The concession and materials were sold, Dec. 31, 1898, to a Japanese syndicate. It was opened for traffic Sept. 1, 1899. In Seoul Mr. Colbran built an electric trolley railway 6 miles long for a Korean company, of which Ye-Cha-Yun, formerly in Washington, is president. It runs from outside the new west gate through the city to the east gate, and thence to the imperial tomb. It was at first injured by the mob, because they supposed it hindered rain, but it is now popular and pays well.

Politics and Events.—The year has been characterized by an intense conservative reaction in the Government and an absence of important diplomatic or political events, except the chronic local rebellions in the provinces and the plots of rivals and partisans in the capital. Though the solar calendar was adopted in 1895, and is officially observed, yet the people still celebrate, with a fortnight of rejoicings and old-time customs, the lunar calendar and the Chinese New

Year's Day and season. After riots between the reform and the conservative elements, the peddlers' and butchers' guilds were abolished and the Independence Club and the popular movement were reduced to nullity. In March a school for girls was opened in Seoul by Korean ladies, the first in the country under native auspices. After much excitement between the anti-Russian party and their few opponents, during which Kim-Hong-Niuk, a powerful pro-Russian, was murdered and his body mutilated by the mob, Russia and Japan, on April 25, agreed on a *modus vivendi*, both recognizing the sovereignty of Korea and engaging to refrain from direct interference in her internal affairs. No military or financial advisers will be nominated by either without mutual agreement. Russia agrees not to impede the commercial relations between Japan and Korea. On June 8 Prince Henry of Prussia arrived at Chemulpo, and on the 11th he had audience of the King, with a review of 3,000 troops. On the same day there were attacks with dynamite bombs on five Korean ministers. On Oct. 21 the King's adviser, Mr. G. R. Greathouse, an American of great legal ability, followed in death Gen. Charles Le Gendre, who for several years held the same office, and Gen. William McE. Dye, the American military instructor and Vice-Minister of War. The year was one of notable activity in Christian missionary work at the ports and the capital, and of steady progress in education, with a revival of Confucianism among the *yang-ban*.

KRUGER, STEPHANUS JOHANNES PAUL, President of the South African Republic. He was born in Rastenburg, Cape Colony, in 1825. His father was not of the old Afrikaner stock, but an immigrant from Germany, one of the many that came from the Rhine country in the eighteenth century and merged readily in the Dutch population, to which in language and race they were closely related. When the Boers of the eastern parts of the colony, rendered desperate by the decision of the British Government that the Kaffirs who had murdered their neighbors, stolen their cattle, and burned their homesteads were in the right, aggrieved too by the policy of the colonial Government to uproot the Dutch language and laws, determined to abandon their homes and their fixed property and to go far into the wilderness to seek a promised land where the English scepter could not reach, the Krugers were as ready as the old Cape families to leave their roof tree and encounter the dangers of the great trek. Paul Kruger was only a boy of twelve, but so strong and bold that when a leopard seized his little sister he rescued her and killed the beast with his knife. They were with one of the commandos, all neighbors and relatives, that trekked all the way over the Orange, over the Vaal, up the valley of the Caledon, over the Drakensberg, and from their laager on the Tugela sent their wisest farmers out to view the land; and they found it fair, the rich terrace country of Natal, truly the promised land of Canaan. Then came the negotiation with Dingaan, then his treacherous massacre of their leaders, then the deep cry for vengeance, the vengeance of the Lord, and the long, crafty war, that strange war of 200 or 300 men against 30,000; but their faith gave them strength, and they won the final victory. Then came a British detachment, and the officer told them that they were British subjects; and when re-enforcements arrived the British flag was raised over the land of the Amorites that they had taken with the sword. Back over the steep pass of the Drakens-

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berg trundled the long caravans of great Cape wagons, each drawn by a dozen yoke of oxen. The Transvaal was the land of Canaan after all, for there the Philistines could not oppress them.

The elder Kruger took up a farm as large as a county, and when the boys grew up and married they made locations for themselves. Paul was known throughout the Transvaal for his strength, skill, courage, and resource. He hunted over the whole country, and killed more lions than any one else. No Kaffir could match him in fleetness of foot or endurance. Sound and shrewd of judgment, keen in practical affairs, convincing in argument, eloquent, masterful, he asserted himself among the young burghers, and soon held a place in the councils of the young nation of which he was the product and the type. He became field cornet, a member of the Volksraad, an active and diligent member who shaped legislation because he was grounded in the principles on which the republic was based and a thorough believer in them. He became a member of the Executive Council under President Burgers in 1872. When dissatisfaction at the liberal religious views of President Burgers threatened to disrupt the republic, when the failure of the expedition against the Bapedi rebels and the financial embarrassment caused by the President's ambitious policy of internal improvements seemed to justify the opinion of the pious Doppers that the Lord had deserted the republic, an English commissioner appeared and raised the British flag over the Transvaal, and a strong body of troops marched in straightway. Paul Kruger, Piet Joubert, all the Boers, all the Boer wives still more, were determined that the republic should not go under, that the Englander should not rule them and their children. All signed a memorial declaring that they did not desire British annexation—all the Boers, not the British and German traders and artisans who had invited the occupation. Kruger, Joubert, and Pretorius went to London to protest against the action of Sir Theophilus Shepstone, went again with this document to disprove the statement that the people had asked for annexation, and were informed that the British flag, once raised, would not be hauled down. The Boer deputation returned home discomfited, but not entirely disheartened. They knew their people's patience, persistence, unity, courage. The case was not worse than when they warred against Dingaan and his Zulus. They did as they had done in that dire time of tribulation. They came together quietly to discuss and plan. They prayed and sang the Transvaal hymn of deliverance from the British yoke. They quietly acquired more firearms and stored up provisions. When the British had reduced their garrisons they suddenly raised the flag of independence. The British sent troops up from Natal, and the Boers trapped them and beat them. When a rude farming community of about 6,000 men bade defiance to the British Empire, and when 800 British regulars were put to flight on ground selected by an English general by 156 of these farmers, there seemed to be political and military grounds for vindicating British prestige, and therefore an army was sent to subjugate the Transvaalers. When, on the other hand, every Dutch Afrikaner felt his blood boil when he saw what England had done and intended to do to his kindred in the Transvaal there were political and military grounds for the British Government to stay its hand. Mr. Gladstone appreciated these grounds, and he understood that it would be more ignominious for Great Britain to impose a tyrannical yoke on a

race of white freemen than it was to have British soldiers worsted in a few skirmishes. Therefore the convention of 1881 was signed, giving back self-government to the Transvaal, Great Britain retaining suzerainty. The military successes that brought about this result were due to Joubert, who was elected commandant general. The political and diplomatic success was achieved by Kruger, and for that reason the burghers chose him in 1882 to be President of the Transvaal Republic, and in 1883, when the regular electoral period came round, he was re-elected for five years, and in each successive election since, in 1888, in 1893, and in 1898. The convention of 1881 did not secure to the Transvaal that full measure of independence to which President Kruger and the burghers aspired. When they had organized the republic on a new and lasting basis, and were strong again because they were united, the President set himself to work to secure a revision of the convention. He was willing to concede commercial and territorial advantages if the Queen's Government would yield rights that were scarcely exercised or had little value. It was a question of names rather than actualities, but names that fastened the badge of dependence on the republic were harder to bear than material sacrifices. There was the right to march troops through Transvaal territory, the right to represent the republic in its external relations, the right to appoint a resident; there was the suzerainty, an invidious word, having no modern legal meaning, only defined as meaning here those specified rights. Paul Kruger went to London again in order to negotiate a new convention with Lord Derby, who had to consider, as before, the opinion of the Cape Afrikaners, which was altogether propitious, for Kruger always knew what ground he was walking on. To renounce any one of the thousand shadowy rights built out of words that rest unheeded in the British archives would not enter into the head of a British minister. The Liberal Secretary of State for the Colonies was willing to make a new convention, to let the Transvaal resume the old name of South African Republic, to expunge the word suzerainty from the preamble, to strike out the right to march troops into the Transvaal, to send a diplomatic agent instead of a resident to Pretoria, and to let the republic have its own diplomacy, subject to the condition that the Queen's Government should have six months in which to disapprove any treaty made with a foreign power. That veto power was all that stood between the Transvaal and absolute independence. The state President was willing to give a substantial *quid pro quo* in order to take back to Pretoria this convention of 1884.

The national development of the South African Republic was rapid after Kruger had secured this convention. With their own railroad to the non-British port of Delagoa Bay the Boers were independent of the railroad and customs tariffs of the Cape and Natal. They secured a title to a port of their own, the Bay of St. Lucia, in Zululand, but the British Government intervened and took it away from them. The discovery of gold in the Transvaal opened the prospect of a national revenue, a thing almost impossible to obtain from farmers alone, and Kruger permitted miners to come in, and gave them a code of mining laws as liberal as those of California. He had controversies with the Foreign Office, of course. His life has been spent in these controversies. The British settlers objected to being commandeered to fight Kaffir rebels. He excused

them from being commandeered. Afterward they wanted franchise privileges. He gave them franchise privileges in matters affecting the mines and the Uitlander community. Eventually they raised a factitious clamor for full burgher rights. Here he had to deal not with the bungling impersonality in Downing Street, with its pigeonholed official knowledge which would make out the Transvaal Boers to be British subjects who had gone beyond the pale of the law to gratify their criminal propensities among savages, but with a man, a practical politician, who could bend multitudes to his will, who was crafty, ingenious, resourceful, careless of the means he used if they only served his end, and that end involved first of all the extinction of the South African Republic. The history of South Africa subsequent to the conclusion of the last London convention is a narrative of the struggle between Paul Kruger and Cecil Rhodes. As Premier of Cape Colony and the accepted leader of the Afrikaner party, pretending to pursue the good of all South Africa, but nursing the local jealousies springing from separate material interests, Rhodes sought to win the Cape Dutch and the Free Staters to his side, and actually secured their quiescence and consent when he threw a strangling band of British territory round the Transvaal, checking all expansion to the west or the north. Kruger had established friendship with Lobengula; but Rhodes unearthed a dormant mining concession, given by Lobengula for a supply of firearms to fight the Boers, and on the strength of this obtained a royal charter. The Cape Dutch had now lost faith in Rhodes, so he took the opposite party into his train, and nursed the jealousies of the British in South Africa, especially the rapidly increasing mining community on the Rand, which grew to outnumber the Boers of the Transvaal. He plotted the revolutionary uprising of 1895 and the invasion of the Transvaal by the Chartered Company's troops. This proved a lamentable failure, owing to the watchfulness of Kruger and the unwillingness of the American conspirators and of the workmen to abolish the republic and accept British rule. If Rhodes had been on hand there would have been no abortive rising, but he had to suffer an eclipse in consequence of the fiasco. To Kruger it gave the opportunity he desired. He armed and fortified the Transvaal. It was four years before the Uitlander agitation could be renewed with the prospect of British official support. In 1899 Mr. Chamberlain and Sir Alfred Milner determined to curb the growing military power and national spirit of the South African Republic, even at the cost of war. Asserting the suzerainty of Great Britain, they assumed the right of the British subjects in the Transvaal to the franchise on a theory that Englishmen are a masterful race,

who will not suffer others to rule them, and that such a condition constituted a danger to the peace of South Africa. The policy of President Kruger in regard to the franchise was always clear and simple. He wanted as many new burghers as he could get that would stand by the republic and uphold its laws and institutions. Strangers who came to get money and return after a few years to their own country he did not want; still less Britishers who desired to upset the republic and convert it into a British colony. When the strangers began to flock in the naturalization period was made longer and longer, so as to exclude the elements that could not be assimilated, though all who showed their loyalty to the republic by going out with the burgher commandos to fight native rebels or the Jameson raiders were naturalized immediately by special legislation. The state President offered to prove to Sir Alfred Milner that Englishmen with few exceptions would not renounce their nationality to become Transvaal burghers, and that the majority of the Uitlanders were satisfied with the laws and their administration. The High Commissioner persisted in his demand for a five years' retrospective franchise as an irreducible minimum. The state President offered this if the newly revived claim to suzerainty were abandoned; but Sir Alfred Milner could not agree to retract or even ignore the absurd assumption of Mr. Chamberlain that the preamble of the convention of 1881 was still in force. President Kruger said he would not consent to give his country away to strangers. Thus war resulted between Great Britain and the allied Boer republics—a war that he predicted would stagger humanity.

Ohm Paul, or Uncle Paul, as his people sometimes call him, is vigorous in body and intellect in his old age. He is a typical Boer patriarch, the father of eleven children, who have large families too. He has sold gold-bearing land and other property enough to make him very wealthy—a millionaire in pounds sterling, it is said—yet he lives in the utmost simplicity in a modest house. He shares the common Boer disdain for luxury and elegance, as well as for ceremony and formality. The Bible is his constant guide, and from its perusal he has acquired the habit of quoting scriptural texts in support of his political arguments. From the Bible, too, he has learned the graceful art of illustrating his meaning by means of parables and forcible similes. He often mounts the pulpit, and has the reputation of being the best preacher in Pretoria. Tobacco and coffee are his only indulgences. Coffee is indeed the only regale that is usually set before visitors in the President's house, and to keep a plentiful supply ready an annual sum is allotted from the state treasury.

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LAWTON, HENRY WARE, American soldier, born in Manhattan, Lucas County, Ohio, March 17, 1843; fell in the battle of San Mateo, Luzon, Philippine Islands, Dec. 19, 1899. He was a student in the Methodist Episcopal College in Fort Wayne, Ind., when the civil war broke out, enlisted in the Ninth Indiana Volunteers April 18, 1861, and was appointed a sergeant. On Aug. 20 he was commissioned first lieutenant in the Thirtieth Indiana Regiment, May 17, 1862, was promoted captain, and Nov. 15, 1864, lieutenant colonel. He was mustered out of the service Nov.

25, 1865, with the brevet rank of colonel. In 1864 Capt. Lawton commanded his regiment. Its service was at the West, and he received the official commendation of his superior officers on several occasions, especially for the manner in which he handled his men in the battle of Nashville. The brigade to which his regiment belonged captured on the two days of battle 7 of the 13 guns secured by the entire division, and 641, or more than half, of the prisoners. The Thirtieth Indiana was very much reduced in strength about this time, and Capt. Lawton car-

ried into action in the 7 companies composing it probably not more than 250 men. In his official report of the part taken by his regiment in the battle of Franklin (Nov. 30, 1864), which preceded that of Nashville and was a part of the same general movement, he says:

"After a very irregular march all night I arrived with the brigade (Third) at Franklin at about 8 A.M. of the 30th inst.; was formed in irregular order, and with arms stacked remained long enough to prepare breakfast. About 11 A.M. we were moved to the right, near the western portion of the city, and were formed by Gen. Grose, commanding brigade, in line of battle. My position was in the front line, joined on the right by the Seventy-fifth Illinois and on the left by the Eighty-fourth Indiana. Skirmishing had already begun on the left of the line, and was now commencing in our front. A line of works was now being rapidly constructed, and by 4 P.M. was completed.

"My regiment being composed mostly of new levies and drafted men, and entirely ignorant of the use of arms, I deemed it necessary to have all spare time given to drill; consequently when the works were finished I was forming for that purpose when the pickets in my front commenced firing very rapidly, and by the time I had formed behind the works were driven in by a charge of the enemy. They fell back immediately in my front and compelled me to hold my fire for the purpose of saving my own men. The enemy received an oblique and very destructive fire from the Ninth Indiana on the right of the line, which checked him until the pickets got under cover of the works, when I immediately opened upon him. The two fires soon became too hot, and he was compelled to fall back, which he did in considerable disorder. Pickets were again sent out in my front and kept up a slow fire, but were not again driven in. Heavy fighting, however, was done on the left, but my command had no part, and nothing further occurred until twelve o'clock that night, when our line was withdrawn and I moved with the brigade across the river without further molestation.

"The conduct of both officers and men was good, without exception, and they have my warmest thanks for the promptness with which they did their part."

After the war Col. Lawton began the study of law at Harvard, but he soon gave it up and accepted an appointment as second lieutenant in the Forty-first United States Infantry, July 28, 1866. He was promoted first lieutenant July 31, 1867, and served as regimental quartermaster from June 1, 1868, to Nov. 11, 1869, when he was transferred to the Twenty-fourth Infantry, with which he served in the same capacity till Jan. 1, 1871. He was then transferred to the Fourth Cavalry, of which he was quartermaster most of the time till March 20, 1879. At that date he was promoted captain, Sept. 17, 1888, was made major and inspector general, and Feb. 12, 1889, lieutenant colonel.

He was commissioned brigadier general May 4, 1898, and placed in command of the Second Division of the Fifth Corps. In the Cuban campaign he led the advance, and his division was the first to land at Daiquiri. He commanded in the action at El Caney, exhibiting great skill and gallantry. After the capture of Santiago he was promoted major general (July 8) and placed in command of the district. In the autumn of that year he returned to the United States, and accompanied President McKinley on his tour of the Southern States. In December he was as-

signed to the command of a corps in the Philippines, and he was in active service there through the year 1899 till he was shot dead in battle. A popular subscription for the relief of his widow and children aggregated almost \$100,000, which was made over to Mrs. Lawton early in March, 1900.

LIBERIA, a republic on the west coast of Africa, founded by emancipated American slaves, with a Constitution copied after that of the United States. The Senators are elected for four years, and members of the House of Representatives for two years. The President is elected also for two years. The Senate has 8, the House of Representatives 13 members. The President is W. D. Coleman; Vice-President, J. J. Ross. The Government receipts, coming mostly from customs, amount to \$158,000 a year. The debt consists of a loan of £100,000 raised in 1871, which with arrears of interest since 1874 amounted in 1897 to £204,500.

The area of Liberia is estimated at 14,360 square miles, with a population of 18,000 Afro-Americans and 1,050,000 Africans of native stock. The Kru and Wey tribes of Liberia supply crews and stokers for many of the steamers engaged in the West African trade, and also fighting men and porters for all expeditions sent into the interior and laborers for plantations in Cameroons and other places along the coast. Monrovia, the capital, has about 5,000 inhabitants.

The coffee grown in Liberia ranks among the best sorts. Other exports are palm oil and palm kernels, rubber, of which a monopoly has been granted to a commercial syndicate, cacao, sugar, arrowroot, ivory, hides, and piassava. The rubber company is composed of Englishmen. England has saved the republic from bankruptcy by financial support, yet has no other commercial interests in the country. Two thirds of the foreign trade is in the hands of Germans. France has advanced the frontier of the Ivory Coast possessions to the Cavally river, which Liberia claimed. Recently a permanent French agent has been sent to Monrovia.

LITERATURE, AMERICAN, IN 1899. A considerable increase was shown in the number of books published during this year compared with 1898. Four hundred and thirty-five more volumes were recorded, the totals standing 5,321 to 4,886. The comparison is favorable with the year 1897 also, when 4,928 books were sent out; but when we consider the records of 1895 and 1896 there is a decided falling away, the figures for those years being respectively 5,469 and 5,703 volumes. A most encouraging fact is that, while in 1898 the books by American authors numbered 2,908, in 1899 3,626 were the production of native writers. But 571 books by English and foreign writers were manufactured in this country (new editions being included in the estimates), as compared with 834 of last year. The importations of books by English authors, bound or in sheets, were 1,124, as against 1,144 in 1898. The most marked increase was in the department of biography and memoirs, where 116 new titles were recorded in excess of those of last year. Seventy-eight more juvenile books were also sent out, and 50 more books on the fine arts and illustrated books, than were published in 1898. The largest decrease was in books on theology and religion. These fell to the fifth place in point of numbers, formerly occupied by books for young people. There were also fewer books in medicine, in literary history and miscellany, and in political and social science. History showed no variation to speak of, and more books of travel were written.

The complexion of the literature of the year was much colored by the disputed questions of the conquest and retention of the Philippine Islands.

Biography.—Much of the biographical literature of the year was ephemeral in character. *American Naval Heroes*, by J. Howard Brown, led naturally to *Dewey and Other Great Naval Commanders*, by William Henry Davenport Adams; *A Life of Admiral George Dewey*, and *Dewey Family History*, edited by Adelbert Milton Dewey, filled a sumptuous volume; *Admiral George Dewey: A Sketch of the Man* came from John Barrett; *The Hero of Manila: Dewey on the Mississippi and the Pacific*, by Rossiter Johnson, in the *Young Heroes of the Navy Series*, was illustrated by B. West Clinedinst and others; *Admiral Dewey, the Hero of Manila*, was from the pen of Thomas W. Handford, who also portrayed for us Theodore Roosevelt, the *Pride of the Rough Riders*, as an ideal American; and Will M. Clemens, in addition to his *Life of Admiral George Dewey*, gave a brief portrayal of Theodore Roosevelt, the American. From Reefer to Rear Admiral was the title of reminiscences and journal jottings of nearly half a century of naval life (1827-'74), vouchsafed by Benjamin F. Sands, while a still longer period was covered in the autobiographical *Life of Charles Henry Davis, Rear Admiral, 1807-1877*. David G. Farragut, by James Barnes, belonged to the *Beacon Biographies*, edited by M. A. De Wolfe Howe, other issues of which were Robert E. Lee, by William P. Trent; Daniel Webster, by Norman Hapgood; Aaron Burr, by Henry Childs Merwin; John Brown, by Joseph Edgar Chamberlain; and Frederick Douglass, by Charles W. Chesnut. Abraham Lincoln: *The Man of the People* was the subject of a special study by Norman Hapgood; *Truth is Stranger than Fiction*, by James H. Cathey, contained a North Carolina tradition relative to the ancestry of Lincoln; Nancy Hanks, by Mrs. Caroline Hanks Hitchcock, told the story of his mother, also revived in *The Sorrows of Nancy*, by L. Boyd. Two volumes contained the *Life and Public Services of Edwin M. Stanton*, by George C. Gorham. *General Sherman*, by Manning Ferguson Force, in the *Great Commander Series*, contained the most accurate and complete account of the battle of Shiloh said to have been yet published; the *Life of Nathan Bedford Forrest*, by John Allan Wyeth, M. D., contained much history in addition to the career of the brilliant Confederate cavalry leader, and was profusely illustrated; and from John G. Gittings came *Personal Recollections of Stonewall Jackson*. The *Reminiscences of Neal Dow* (born 1804; died 1897) contained the recollections of eighty years, and to James F. Rusing we owe an account of *Men and Things I saw in Civil War Days*. *The Life and Times of Hannibal Hamlin* was from the pen of Charles Eugene Hamlin, and *The Life of Oliver P. Morton*, by William Dudley Foulke, in two volumes, included his important speeches. *The Life of Henry A. Wise, of Virginia, 1806-1876*, was written by his grandson, Barton H. Wise. *Salmon Portland Chase*, by Albert Bushnell Hart, and *Thaddeus Stevens*, by Samuel W. McCall, appeared in the *American Statesmen Series*. John Murray Forbes's *Letters and Recollections*, edited by his daughter, Sarah Forbes Hughes, contained the life of a man who played no small part in New England during the civil war, and in this connection may be mentioned the interesting *Reminiscences, 1819-1899*, of Mrs. Julia Ward Howe. John Hooker gave *Some Reminiscences of a Long Life*, and especially delightful were *The Reminiscences of a very Old Man, 1808-*

1897, by John Sartain, containing personal phases of the development of American art and letters for over sixty years. *Recollections of my Mother (Mrs. Anne Jean Lyman)*, by Mrs. Susan Inches Lesley, gave a picture of domestic and social life in New England in the first half of the nineteenth century. Of present-day interest was *The Life of Prince Otto von Bismarck*, by Frank Preston Stearns. *Dreyfus, the Prisoner of Devil's Island*, was from the pen of William Harding, and *Lettres d'un Innocent* was the title of letters of Capt. Dreyfus to his wife, translated by L. G. Moreau and published for his vindication in the United States. *The Memoirs of a Revolutionist*, by Prince Kropotkin, was also a book of American manufacture. R. W. Hale also told briefly *The Dreyfus Story*. *Maximilian in Mexico*, by Mrs. Sara Yorke Stevenson, contained a woman's reminiscences of the French intervention, 1862-'67. Returning to the Revolutionary period, we have a presentation of *Washington the Soldier*, by Henry B. Carrington, with chronological index and appendices, and a second volume of *Letters to Washington*, edited by Stanislaus Murray Hamilton, covering the period 1756-'58, while Washington's Farewell Address was again given to the reading public, this time with a prefatory note by Worthington Chauncey Ford. Paul Leicester Ford presented views of *The Many-sided Franklin* in an entertaining volume, in addition to completing his edition of the *Writings of Thomas Jefferson* with the tenth and final volume, and *Franklin with his friends* is the theme of a most readable collection of *Historic Side Lights*, made by Howard Payson Arnold. Stanislaus Murray Hamilton sent out the second volume of *The Writings of James Monroe*, being a collection of public and private papers and correspondence, now for the first time printed, which he has undertaken the task of editing in six or seven volumes. Edward Field gave us *Ezek Hopkins, Commander in Chief of the Continental Navy, 1775-1778, Master Mariner, Politician, Brigadier General, Naval Officer, and Philanthropist*, while from Augustine Jones we had *The Life and Work of Thomas Dudley, Second Governor of Massachusetts*. Sydney George Fisher, the author of *The True Benjamin Franklin*, proved *The True William Penn* widely different from the accepted ideal of the first proprietor of Pennsylvania. *The True Story of Lafayette*, called *The Friend of America*, was written for the series of *Children's Lives of Great Men* by Elbridge Streeter Brooks; Herbert B. Adams edited a brief collection of letters anent Jared Sparks and Alexis de Tocqueville. An edition limited to 290 copies was made of the *Journal; or, Historical Recollections of American Events during the Revolutionary War*, by Elias Boudinot, President of the Continental Congress and commissary general of prisoners during the war of independence. *La Salle in the Valley of the St. Joseph* was the theme of Charles H. Bartlett and Richard H. Lyon. To literary biography belong *Letters from Ralph Waldo Emerson to a Friend, 1838-1853*, edited by Charles Eliot Norton, and *Letters of Sidney Lanier*, selections from his correspondence, 1866-'81. James Russell Lowell and his *Friends*, by Edward Everett Hale, was supplemented by Edward Everett Hale, Jr.'s, sketch of James Russell Lowell in the *Beacon Biographies*, to which Mrs. Annie Adams Fields contributed Nathaniel Hawthorne. A gentle and gracious personality was that of John Sullivan Dwight, Brook Farmer. Editor, and Critic of Music, as portrayed by George Willis Cooke: *Recollections of an Old Musician* came from

Thomas Ryan, of the Mendelssohn Quintette Club, Boston. Prof. Daniel Coit Gilman wrote *The Life of James Dwight Dana*; E. P. Roe: *Reminiscences of his Life*, by his sister, Mary A. Roe, found favor with the many admirers of that popular writer of fiction; Novelists in the Warner Classics were sympathetically treated by Henry James, W. T. Trent, and others; Kate Field: *A Record*, was from Lillian Whiting; and from Thomas Wentworth Higginson we had a collection of portraits of his Contemporaries, including many well-known names. Mrs. Mary Virginia Hawes Terhune (Marion Harland) gave a glimpse of Charlotte Brontë at Home in the series of *Literary Hearthstones*, following her volume on William Cowper, which initiated the series. Anton Seidl was a costly memorial by his friends, in an edition limited to 1,000 copies; an *Autobiographical Sketch of Mrs. John Drew*, covering nearly seventy years of American dramatic history, had an introduction by her son, John Drew, with biographical notes by Douglas Taylor; and in the *Sock and Buskin Biographies* we had Julia Marlowe, by John D. Barry. *Little Journeys to the Homes of Eminent Painters* were, of course, conducted by Elbert Hubbard. *Lights and Shadows of a Long Episcopate* was the title of reminiscences and recollections by Bishop Henry B. Whipple, the venerable missionary to the Indians of Minnesota, and from John B. Adger we had the record of *My Life and Times, 1810-1899*, while *Under Three Flags*, by Rev. George Wharton Pepper, told the story of his life as preacher, captain in the army, chaplain, and consul. Horace Bushnell, Preacher and Theologian, by Theodore Thornton Munger, was the first full and connected account of the work of the eminent Congregational clergyman of Connecticut. *A Discourse in Memory of H. Leavitt Goodwin*, pronounced in parish church of East Hartford, April 16, 1899, by Dr. Leonard Woolsey Bacon, was published in pamphlet form; *The Apostle of the North*, Rev. James Evans, with his work among the red men of the Hudson Bay territories, was sympathetically treated by Egerton Ryerson Young; and a *Life of Father Hecker*, Founder of the Paulists, by Rev. Walter Elliott, had an introduction by Rev. John Ireland. C. F. B. Miel, D. D., in *A Soul's Pilgrimage* confided his personal and religious experiences. *Desiderius Erasmus of Rotterdam* was contributed by Prof. Ephraim Emerton to the *Heroes of the Reformation Series*; *A Life of the Pope (Leo the Thirteenth)* was compiled and translated from the most authentic sources by Arthur D. Hall; *The College Warden*, by Henry A. Fairbairn, M. D., was a biography of his father, Robert Brinckerhoff Fairbairn, warden of St. Stephen's College, Annandale, N. Y.; and Henry D. Stevens sketched *A Boy's Life* in its spiritual ministry—that of his son. *Ingersollia* was the title of gems of thought from the lectures, speeches, and conversation of the late Col. Robert G. Ingersoll, which contained a biographical sketch by Thomas W. Handford, and *A Vision of War*, a patriotic address by Col. Ingersoll, was published with illustrations by H. A. Ogden. *A Life for Liberty*, a collection of antislavery and other letters of Sallie Holley, edited with introductory chapters by John White Chadwick, was far enough removed in spirit from White and Black under the Old Régime largely biographical, by Mrs. Victoria V. Clayton, widow of Major-Gen. Henry D. Clayton, C. S. A., late President of the University of Alabama. Henry Harisse was the subject of a biographical and bibliographical sketch by Adolf Growoll, in a limited edition. *The Last of the Great Scouts* con-

tained the life story of Col. William F. Cody (Buffalo Bill) as told by his sister, Mrs. Helen Cody Wetmore, in line with which was *Buffalo Jones' Forty Years of Adventure*, a volume of facts gathered from the experience of C. J. Jones, compiled by Henry Inman. *Throne Makers* was the suggestive title of a volume by William Roscoe Thayer, the author of *The Dawn of Italian Independence*, and *True Stories of Heroic Lives* were told of courageous men and women of the nineteenth century by personal acquaintances and eyewitnesses. Vols. VI, VII, and VIII were issued of the *National Cyclopædia of American Biography*, and *Who's Who in America*, a biographical dictionary of living men and women of the United States in 1899-1900, was edited by John W. Leonard, proving an exceedingly useful handbook.

Criticism and General Literature.—The first of two volumes which will contain *An Introduction to the Methods and Materials of Literary Criticism*, by Prof. Charles Mills Gayley and Frederick Newton Scott, was issued during the year and was devoted to *The Bases in Aesthetics and Poetics*; *The Authority of Criticism*, and *Other Essays*, came from Prof. William P. Trent; and *Some Principles of Literary Criticism* were set forth by C. T. Winchester. *A General Survey of American Literature* was made by Mary Fisher, author of *A Group of French Critics*, and Blanche Wilder Bellamy reprinted in book form her sketches of *Twelve English Poets*, with selections from their works, taken as representatives from Chaucer to Tennyson. Wilbur Lucius Cross traced *The Development of the English Novel*. *The Treatment of Nature in the Poetry of the Roman Republic (exclusive of Comedy)* was the subject of a thesis submitted by Katharine Allen for the degree of doctor of philosophy in the University of Wisconsin, and published as a *Bulletin of that university*; Joel Elias Spingarn contributed *A History of Literary Criticism in the Renaissance*, with special reference to the influence of Italy in the formation and development of modern classicism, to the Columbia University Studies in Literature; while Prof. Albert Elmer Hancock was responsible for an excellent study in historical criticism entitled *The French Revolution and the English Poets*. *A History of English Romanticism in the Eighteenth Century* was delivered in the form of lectures by Prof. Henry A. Beers before Yale University, while *The Troubadours at Home: Their Lives and Personalities, their Songs and their World*, were the theme of two volumes by Justin H. Smith, containing 178 illustrations. *French Portraits*, by Vance Thompson, bore as subtitle *Appreciations of the Writers of Young France*. Part I of *Romances of Roguery: An Episode in the History of the Novel*, by Frank Wadleigh Chandler, was devoted to *The Picaresque Novel in Spain*, and *Contemporary Spain* as shown by her Novelists, compiled by Mary Wright Plummer, had an introduction by Edward Everett Hale. Henry Budd published *St. Mary's Hall Lectures, and Other Papers*. Leo Wiener wrote *The History of Yiddish Literature in the Nineteenth Century*, and from Israel Abrahams we had *Chapters on Jewish Literature*, extending over more than seventeen centuries. Richard Burton proffered his *Literary Likings*. An exceptionally artistic work, both in its subject-matter and manner of presentation, was *Fisherman's Luck* and some *Other Uncertain Things*, by Henry Jackson Van Dyke, Jr.; *Stories of Lake, Field, and Forest*, by Frank A. Bates, recorded the rambles of a sportsman-naturalist; Robert R. McLeod commemorated Nature

studies In the Acadian Land; while from Ernest Seton Thompson was welcomed another of his exquisite studies of animal life and Nature, entitled *The Trail of the Sandhill Stag*, in connection with which may be here mentioned *Bob: The Story of our Mocking-bird*, by Sidney Lanier, made into book form, with 16 illustrations in color, and a new edition of *Diomed*, by John Sergeant Wise, with 100 illustrations by J. Linton Chapman. A collection of descriptive and historical essays by Sidney Lanier was also published under the title of *Retrospects and Prospects*. What is Good English? and Other Essays, came from Prof. Harry Thurston Peck; *American Lands and Letters: Leather Stocking to Poe's Raven*, by Donald Grant Mitchell (Ik Marvel), included some of the most eminent men and women of American letters; *A Group of Old Authors* were selected by Clyde Furst for his theme; while *Great Books as Life's Teachers* were the theme of lectures delivered by Newell Dwight Hillis in Plymouth Church as studies of character, real and ideal, and from the same author we had *Right Living as a Fine Art*, a study of Channing's *Symphony* as an outline of the ideal life and character. Browning, Poet and Man; *A Survey*, by Elizabeth Luther Cary, was a companion volume to her *Tennyson* of last year, and one of the choicest books of the holiday season, while Lillian Whiting made *A Study of Elizabeth Barrett Browning*. The *Mind and Art of Poe's Poetry* was explored by John Phelps Fruit, and Joel Benton published *In the Poe Circle*, with some account of the Poe-Chivers controversy and other Poe *memorabilia*, a new issue being also made of his work on Emerson as a Poet. Vol. I of *Pioneers of Southern Literature* was sent out by Samuel Albert Ling. Dante interpreted, by Epiphanius Wilson, contained a brief summary of the life, times, and character of Dante, with an analysis of the Divine Comedy and original translations in the Spenserian stanza. *In re Shakespeare's Legal Acquirements*; Notes by an Unbeliever therein, by William C. Devecmon, formed No. 12 of the publications of the Shakespeare Society of New York, and *Testimony of the Sonnets* as to the Authorship of the Shakespearean Plays and Poems was advanced by Jesse Johnson. Series 2 of *How to Study Shakespeare*, by William H. Fleming, had an introduction by W. J. Rolfe, and William Winter edited *The Shakespearean Plays of Edwin Booth*, in two volumes, in addition to *The Miscellaneous Plays of the same actor*. An Introduction to the Works of John Milton came from Hiram Corson, and Milton's Shorter Poems and Sonnets, were arranged in chronological order and edited with an introduction and notes by Frederick Day Nichols in Appleton's series of Twentieth Century Text-books, and to John Lesslie Hall we were indebted for *Old English Idyls*. English Meditative Lyrics were studied by Theodore Whitefield Hunt. *Masque and Mummings* was the title of essays on the theater of here and now, by Charles F. Nirdlinger, and Wotan, Siegfried, and Brünhilde were sympathetically studied by Anna Alice Chapin. W. B. Parker exploited *The Religion of Mr. Kipling*. Stories of Great National Songs were told by Nicholas Smith. *Dionysos and Immortality*, by Benjamin Ide Wheeler, was the theme of the third Ingersoll lecture delivered at Harvard University, following those of Dr. Gordon and Prof. James, respectively upon *Immortality* and the *New Theodicy* and *Human Immortality*, and dwell upon Greek faith in immortality as affected by the rise of individualism. *Bluebeard*, by Thomas Wilson, of the United States National Museum, was a con-

tribution at once to history and folklore, being the history of Gilles de Retz, of Brittany, France, executed at Nantes in 1440 A. D., who was the original of Bluebeard in the tales of Mother Goose. Charles M. Skinner related *Myths and Legends of our New Possessions and Protectorate*, and also sent out *Flowers in the Pave*. *Fireside Fancies of Beulah C. Garrison* ranged over a wide field of subjects, and from Prof. George Edward Woodberry we had a volume of essays entitled *Heart of Man*. Things as they are, by Bolton Hall, the author of *Even as You and I*, had an introduction by George D. Heron; Robert Grant made public *Search-light Letters*; and *Character and Conduct* were the theme of talks to young people by George McEndree Steele. Outlooks and Insights in Behalf of Larger and More Hopeful Views of Life were proffered by Humphrey S. Desmond. *Modern Daughters* were engaging subjects of Alexander Black's pen and camera, and a new issue was made of Mrs. Julia Ward Howe's query, *Is Polite Society polite?* with which other essays were incorporated. Vol. II of *Some Colonial Mansions* and those who Lived in Them, edited by Thomas Allen Glenn, continued that entertaining work, and from Mrs. Mary V. H. Terhune (Marion Harland) we had *More Colonial Homesteads and their Stories*, with 80 illustrations. *Salons Colonial and Republican* were reproduced in Anne H. Wharton's new book, exquisitely illustrated. *Child Life in Colonial Days* was admirably handled by Mrs. Alice Morse Earle, Ezra Hoyt Byington discoursed of *The Puritan as a Colonist and Reformer*, and *The Quaker Colony* was penned and pictured for the series of *Colonial Monographs* by Blanche McManus. Useful handbooks of the literary art published during the year included an Introduction to Rhetoric, by Prof. William B. Cairns; *A Course of Expository Writing* and *A Course of Argumentative Writing*, by Gertrude Buck, who also contributed *The Metaphor*, a study in the psychology of rhetoric, to the *Contributions to Rhetorical Theory*; *A Critique of some Recent Subjunctive Theories*, by Charles Edwin Bennett, in the *Cornell Studies in Classical Philology*; and *Principles of Public Speaking*, laid down by Guy Carleton Lee. The *Free Library: Its History and Present Condition*, by John J. Ogle, appeared in the Library Series, and to John Cotton Dana we were indebted for *A Library Primer*, while *Library Construction, Architecture, Fittings, and Furniture*, by Frank J. Burgoyne, apparently exhausted the subject of libraries in their externals. A General Index to the Library Journal, the official organ of the American Library Association, chiefly devoted to library economy and bibliography, covered Vols. I-XXII (September, 1876, to December, 1897), and to William I. Fletcher and Richard Rogers Bowker we owed, as usual, *The Annual Literary Index, 1898*. A Provisional List of the Publications of American Scientific, Literary, and Other Societies from their Organization" was compiled under the editorial direction of R. R. Bowker, covering more than 1,000 societies issuing publications, and Vol. V appeared of *American Book Prices Current*, by Luther S. Livingston, in a limited edition.

In the *What is Worth While* Series of booklets we had *The Artistic Ordering of Life*, by Albert Stanburrough Cook; *Character, the Grandest Thing in the World and Cheerfulness as a Life Power*, by Orison Swett Marden; *To whom Much is Given*, by Mrs. Lucia Ames Mead; *Every Living Creature*, by Ralph Waldo Trine; and *Opportunities for Culture*, by Jeannette M. Dougherty.

Education.—There was an increase in the number of educational works published during the year over those of 1898. Essays on the Higher Education, four in number, by Prof. George Trumbull Ladd, discussed questions of importance, and from Levi Seeley we had a History of Education. Prof. William James published Talks to Teachers on Psychology and to Students on some of Life's Ideals, and Discussions in Education, by the late Gen. Francis A. Walker, were edited by James Phinney Munroe; E. C. Branson performed a similar service for David Perkins Page's Theory and Practice of Teaching. Common Sense in Education and Teaching was recommended by P. A. Barnett as an introduction to practice, and Paul H. Hanus defined Educational Aims and Educational Values. Charles C. Boyer suggested Principles and Methods of Teaching. Method in Education was intended as a text-book for teachers by Ruric N. Roark; Joseph Landon supplied A Manual of the Art of Questioning for Training Classes; Harriet M. Scott and Gertrude Buck collaborated upon a manual for teachers in primary and grammar grades, entitled Organic Education; and in the International Education Series we had Montaigne on The Education of Children, translated by L. E. Rector, and Letters to a Mother on the Philosophy of Froebel, by Susan E. Blow. Notes on the Development of a Child were continued in Parts III and IV, contributed to the University of California Studies by Milicent Washburn Shian, and From the Child's Standpoint was a collection of views of child life and Nature by Florence Hull Winterburn. Kate Upson Clark made a study of Bringing up Boys. Two small handbooks were The Kindergarten in a Nutshell, by Nora Archibald Smith, and a Bibliography of Child Study, by L. N. Wilson. The Report of the Proceedings of the Second Annual Convention of the National Congress of Mothers, held in the city of Washington, D. C., May 2-7, 1898, was issued; Stuart H. Rowe explained The Physical Nature of the Child and how to Study it; H. Rippon Seymour advocated Physical Training in a handbook for teacher or pupil, which had an introduction by William Taylor, M. D.; and Wilbur P. Bowen prepared A Teacher's Course in Physical Training. Suggestions for Primary and Intermediate Lessons on the Human Body, by Mrs. Ella B. Hallock, may be mentioned also in this connection, and The Story of the Living Machine, by Herbert W. Conn, in Appletons' Library of Useful Studies. A report on The Study of History in Schools made to the American Historical Association by the Committee of Seven was printed in pamphlet form; Helps to the Study of Classical Mythology, for the lower grades and secondary schools, were offered by Prof. Benjamin L. D'Ooge; Historic Art Studies were made by Ruth Janette Warner as an aid for teachers of public schools and colleges in interesting young students in the study of historic art; Geographical Outlines and History, by Isaac N. Miner, was practical in its nature; from Henry McCormick came Suggestions on Teaching Geography; and Object Lessons in Geography for Standards 1, 2, and 3 were the work of T. F. G. Dexter and A. H. Garlick. Part I of Composition, by Arthur Wesley Dow, was issued, being a series of exercises selected from a new system of art education. Elements of Rhetoric, by Alphonso G. Newcomer, was intended as a course in plain prose composition; Composition and Rhetoric for Schools was the result of collaboration by Profs. Robert Herrick and Lindsay Todd Damon; Horace S. and Martha Tarbell presented Lessons in Language and Grammar; E. Oram Lyte, an Ad-

vanced Grammar and Composition; and G. R. Carpenter, Elements of Rhetoric and English Composition, for a first high-school course. The Dictator was a collection of graded dictation exercises for the use of teachers and students of shorthand by Mina Ward. Webster Wells published a New Higher Algebra and The Essentials of Geometry; William J. Milne, a Plane and Solid Geometry, a Key to the work, and a Grammar-school Algebra; and L. A. Blanchard and J. L. André offered The Algebraic Solution of Equations of any Degree by a novel, simple, and direct method. Clay Modeling for Schools, by Anna M. Holland, contained a progressive course for primary schools and grammar grades, and K. Breul treated briefly of The Teaching of Modern Foreign Languages in Secondary Schools. Illustrations of Logic were supplied by Paul T. Lafleur. Wilbur S. Jackman was the author of manual of Nature Study for Grammar-school Grades; Seed Dispersal, by W. J. Beal, was intended as an elementary botany; while an elementary zoölogy by Charles F. Holder was entitled Stories of Animal Life, and appeared in Eclectic School Readings. The same author also contributed Our Country's Flag and the Flags of Foreign Countries to Appletons' Series of Home Readers. The Story of the British Race was written for Appletons' Library of Useful Stories by John Munro. Colonial Life in New Hampshire was described for children by James H. Fassett, Sophie Swett told Stories of Maine for their benefit, and Ella Reeve Ware published Talks about Authors and their Work. Tales told out of School, by E. S. Ellis, belonged to the Standard Teachers' Library, another issue of which was Commissioner Hume: A Story of New York Schools, by C. W. Bardeen, a sequel to his Roderick Hume. Educational Nuggets were gathered for the Nugget Series from the works of Plato, Aristotle, Rousseau, Herbert Spencer, Harris, Butler, and Eliot by John R. Howard. F. R. Clow discussed Economics as a School Study, F. H. Clark drew up Outlines of Civics, and Charles Fletcher Dole sketched briefly the future duties of The Young Citizen. Some Unrecognized Functions of our State Universities were the subject of the inaugural address of John Butler Johnson as dean of the College of Mechanics and Engineering, University of Wisconsin; Prof. James E. Russell made a study of the history, organization, and methods of German Higher Schools; Vol. I appeared of Universities and their Sons, edited by Joshua Chamberlain, to be followed by four more volumes; Yale: Her Campus, Classrooms, and Athletics were exhaustively treated by Louis Sheldon Welch and Walter Camp, Samuel J. Elder contributing an introduction to the work; Where to Educate, 1898-1899, was a guide to the best private schools, higher institutions of learning, etc., in the United States, edited by Grace Power Thomas; and from Flavel S. Thomas, M. D., came A Dictionary of University Degrees. To educational history belong Emma Willard and her Pupils; or, Fifty Years of Troy Female Seminary, 1822-1872, and A Beautiful Life and its Associations, by Anna Howell Clarkson (Mrs. James S. Clarkson), being that of Mrs. Drusilla Allen Stoddard. Webster's Collegiate Dictionary was abridged from Noah Webster's International Dictionary; the American Educational Catalogue for 1899 was compiled as usual; and for the tiny tots we had a collection of Stick and Pea Plays, by Charles Stuart Pratt, with 70 working designs by the author. Songs of the Tree Top and Meadow, compiled by Lida B. McMurphy and Agnes S. Cook, and Songs in Season for Primary and Intermediate Grades,

by Marian M. George, Lydia Avery Coonley, Mary S. Conrade, and others. Harold's Quests were recorded for Appletons' Home Reading Books by John W. Troeger. In the little What is Worth While Series we had two practical papers, on Rational Education for Girls, by Elizabeth Hutchinson Murdock, and The Choice of a College for a Boy, by Charles Franklin Thwing, D. D.

Fiction.—Twenty-five more new novels were published in 1899 than in 1898, the total being 749 as against 724 the preceding year, while the new editions were about the same. Of the total number of works of fiction recorded during the year, inclusive of new editions, 457 were by American authors, as compared with 358 last year and the year previous. Two books sprang into special prominence, Janice Meredith, by Paul Leicester Ford, the author of The Honorable Peter Stirling, and many other notable works of history, biography, and fiction, and Richard Carvel, by Winston Churchill, who was last year heard from for the first time as the author of The Celebrity. Both were stories of the Revolution. The book which had the greatest sale during the year, however, and which went through the greatest number of editions, was Westcott's David Harum, published the year previous, which reached its three hundred and thirtieth thousand. William Dean Howells published Ragged Lady and Their Silver Wedding Journey, the last in two volumes; Henry James satirized The Awkward Age of a young English girl in social life; Mrs. Frances Hodgson Burnett gave to the world information In Connection with the De Willoughby Claim before Congress; That Fortune, by Charles Dudley Warner, completes the trilogy of which the preceding numbers were A Little Journey in the World and The Golden House; The Jamesons was the sole contribution by Mary Eleanor Wilkins; Francis Hopkinson Smith published 11 short stories under the title of The Other Fellow; Via Crucis, by Francis Marion Crawford, was a romance of the second crusade; Active Service came, of course, from Stephen Crane; Richard Harding Davis collected short stories under the title of The Lion and the Unicorn; A Confident To-morrow, by James Brander Matthews, purported to be a novel of New York; Henry Worthington, Idealist, was the second effort of Margaret Sherwood (Elizabeth Hastings), who gave us in 1896 An Experiment in Altruism; The Lively Adventures of Gavin Hamilton, detailed by Molly Elliot Seawell, were illustrated by H. C. Edwards; Sarah Barnwell Elliott described An Incident, and Other Happenings; Dionysius, the Weaver's Heart's Dearest, by Blanche Willis Howard (Mrs. Teuffel), was published posthumously, as was Maria Louise Pool's Sand 'n' Bushes and a collection of short stories, entitled A Widower and Some Spinsters. Julia Magruder wrote A Beautiful Alien and A Heaven-kissing Hill; Sarah Orne Jewett, The Queen's Twins, and Other Stories; Capt. Charles King, A Trooper Galahad; and Mrs. Mary Hartwell Catherwood, Spanish Peggy: A Story of Young Illinois, The Queen of the Swamp, and Other Plain Americans, and Mackinac and Lake Stories. Mrs. Constance Cary Harrison (Mrs. Burton Harrison) was no less prolific, sending out A Triple Entanglement, The Circle of a Century, and The Carcellini Emerald, with which last other tales were included. Loveliness: A Story, by Elizabeth Stuart Phelps Ward (Mrs. Herbert Dickinson Ward), was put forward as a plea against vivisection; from Mrs. Harriet Elizabeth Prescott Spofford we had Old Madame, and Other Tragedies, and The Maid he Married; Mrs. Amelia Edith

Barr propounded a difficult question in Was it Right to Forgive? a domestic romance, and from the same author we had Trinity Bells, a tale of old New York, and I, Thou, and the Other One, a love story pure and simple. The Price of Blood was an extravaganza of New York life in 1807, written in five chapters and also illustrated by Howard Pyle; Frank R. Stockton proved amusing as ever in The Vizier of the Two-horned Alexander; A Prince of Georgia, and Other Tales, were from the pen of Julian Ralph; The Bushwhackers, and Other Stories, from that of Charles Egbert Craddock (Mary Noailles Murfree), who also told The Story of Old Fort Loudon; three stories of strong local flavor by George Washington Cable bore the title of Strong Hearts, while from Joel Chandler Harris (Uncle Remus) we had Plantation Pageants, illustrated by E. Boyd Smith, and The Chronicles of Aunt Minervy Ann, with illustrations by A. B. Frost. Santa Claus's Partner was a Christmas story by Thomas Nelson Page; Averages, a story of New York, by Eleanor Stuart, the author of Stonepastures; John Kendrick Bangs recounted the antics of The Enchanted Typewriter, and also reported the literary exercises of the first regular meeting of The Dreamers: A Club; James L. Ford's Cupid and the Footlights was illustrated by Archie Gunn; Mistress Content Craddock was the heroine of Annie Eliot Trumbull; and yet another posthumous novel of Harold Frederic saw the light, entitled The Market Place. The Gentleman from Indiana, by Booth Tarkington, created an excellent impression as the first attempt of its author, and Arthur Stanwood Pier also made a hit with The Pedagogues, a story of the Harvard Summer School. The Confounding of Camelia, by Anne Douglas Sedgwick, did not fall behind her novel of last year, The Dull Miss Archinard; The Mormon Prophet (Joseph Smith) was chosen for a hero by Lily Dougall; A Daughter of the Vine, by Mrs. Gertrude Franklin Atherton (Frank Lin), was a painful study in heredity; and from Mrs. Anna Katharine Green Rohlf's we had another thrilling detective story, Agatha Webb. To historical fiction belong In Castle and Colony, by Emma Rayner, the author of Free to Serve; The Fight for Dominion, a romance of our first war with Spain, by Gay Parker; The Sword of Justice, by Sheppard Stevens, who last year contributed I am the King; Loyal Blue and Royal Scarlet, a story of '76, by Marion Ames Taggart; A Pretty Tory, by Mrs. Jennie Gould Lincoln; The Tory Maid, by Herbert Baird Stimpson; Westchester: A Tale of the Revolution, by Henry Austin Adams; Smith Brunt, a story of the old navy, by Waldron Kintzing Post; For the Freedom of the Sea, a romance of the War of 1812, by Cyrus Townsend Brady; Sons of Strength, dealing with the Kansas border wars, by William R. Lighton; In Hampton Roads, a dramatic romance of the civil war, by Charles Eugene Banks and George Cram Cook; The Rebel's Daughter, by J. G. Werner; The Last Rebel, by Joseph A. Altsheler; The Legionaries, a story of Morgan's raid, by Henry Scott Clark; and, coming to the late war with Spain, A Lost American, a tale of Cuba, by Archibald Claverling Gunter, who also published Jack Curzon, with its scene in the Orient; A Cosmopolitan Comedy, by Anna Roberson Brown; The High Commission, a romance of the Spanish-American War, by Fredericka Spangler Cantwell; The Wreck of the Conemaugh, by T. Jenkins Hains, purporting to be a record of some events set down from the notes of an English baronet during the American war with Spain, and Don Fernandez, the Spanish Spy. A

Daughter of France was a story of Acadia by Eliza Frances Pollard; *Span o' Life*, a tale of Louisbourg and Quebec, by William McLennan and J. N. McLlwraith; *The True Story of Master Gerard*, as told by Anna T. Sadlier, carried us back to the days of Leisler's government in New York; *The House of the Wizard* was from the pen of M. Imlay Taylor, and maintains the reputation won by *On the Red Staircase* and *An Imperial Lover*; *King or Knave: which Wins?* was an old tale of Huguenot days by William H. Johnson; *The Black Wolf's Breed*, a story of France in the Old World and the New, happening in the time of Louis XIV, by Harris Dickson, illustrated by C. M. Relyea; and *The Man who Dared*, an historical romance of the time of Robespierre, by John P. Ritter. Hugh Gwyeth was a Roundhead cavalier according to Beulah Marie Dix; *The Signors of the Night*, by Max Pemberton, had the scene laid in Venice, and from the same author we had *The Garden of Swords*, a story of the Franco-Prussian War. Robert W. Chambers wrote but one book, *Outsiders*, an outline of New York life in all its phases; Luther Strong, by Thomas J. Vivian, was essentially of New England origin; Harriet Prescott Spofford contributed a foreword to Mary Cameron, a romance of Fisherman's island, by Edith A. Sawyer; and the Rhode Island coast witnessed the wooing of *The Professor's Daughter*, as described by Anna Farquhar. Opie P. Read (*Arkansas Traveler*) wrote Judge Elbridge and, in collaboration with Frank Pixley, *The Carpet-bagger*; Don Cosme: *A Romance of the South*, came from Troilus Hilgard Tyndale; Mrs. Martha S. Gielow published *Mammy's Reminiscences*, and *Other Sketches*; *The Ides of March*, by Florie Williamson Pickard, and *A Texas Ranger*, by N. A. Jennings, as well as *Bobbie*, by Kate Cairns, were also Southern in theme; *A Mountain Europa* was discovered by John Fox, Jr., in the mining regions of Kentucky; *Madrine Doucet*, by Walter Leigh, and *How Hindsight met Provincialis*, by Louise Clarkson Whitelock, related to the strained conditions of feeling between the North and South; Frank Norris, the author of *Moran of the Lady Letty*, published *McTeague* and *Blix*, both stories of San Francisco, and the same city is the scene of *The Shadow of Quong Lung*, by C. W. Doyle; Horace Annesley Vachell carried us to southern California in *The Procession of Life*; and Z. Z. chronicled the success of *A Business Venture in Los Angeles*. The Ladder of Fortune was successfully climbed by the hero of Frances Courtenay Baylor; *The Treasure of Mushroom Rock* was a story of prospecting in the Rocky mountains, by Sidford F. Hamp; and the same scenery was traversed by Jack Crews, in a story of railroad life by Martha Frye Boggs. Denver was the scene of *Windy Creek*, by Helen Stuart Thompson, and *The Helpers*, by Francis Lynde. Under the Cactus Flag was, of course, a story of life in Mexico, by Nora Archibald Smith; and the same country is the background for *San Isidro*, by Mrs. Mary Bradford Crowninshield; *Jesus Delaney*, by Joseph Gordon Donnelly; and *Priestess and Queen*, by Emily E. Reader. *Long Pine*, by R. B. Townshend, was the story of a lost mine among the Pueblo Indians of New Mexico, whose life is vividly pictured; *The Lady of the Flag Flowers*, by Florence Wilkinson, revives an Algonquin legend; *Balloon*, by Le Roy Hooker, portrayed Canadian life; and that of the West Indies was revealed in *The House of the Sorcerer*, by Haldame MacFall. George Horton went to Greece for *A Fair Brigand* as heroine; *The Fox-Woman*, by John

Luther Long, showed the same deep and sympathetic insight into Japanese life as his *Miss Cherry Blossom of Tokyo*; and from Onoto Watanna we had *Miss Numé of Japan*, a Japanese-American romance. *Red, White, and Blue Days*, by Ruth Louise Sheldon, was distinctively a novel of woman's life, and from the same pen we had a study of *Flexible Morals*; Kate Jordan (Mrs. F. M. Vermilye) described *A Circle in the Sand*; Louise F. P. Hamilton recalled the Romance of *Graylock Manor*; and Anna Chapin Ray pronounced *Each Life Unfulfilled* in her story of American aspirants. Jessie Macgregor Shaw's characters were bound by the Closest Ties, and *Cape of Storms* was the title of a novel by Percival Pollard. If I were a Man, by Harrison Robertson, told the story of a new Southerner aroused to a sense of responsibility, somewhat akin in theme to *The Launching of a Man*, by Stanley Waterloo, who published also *The Wolf's Long Howl*. E. Livingston Prescott took *The Measure of a Man*, and Helen F. Potter portrayed *A Man of Honor*. A Man and his Mark, by W. C. Morrow, dealt also with the theme of true manhood and womanhood. Music was the leading motif of *Esprit Santo*, by Henriette Dana Skinner, and *Love Letters of a Musician*, by Myrtle Reed; ocean voyages gave rise alike to *The Kinship of Souls*, by Reuben Thomas, and *My Smoking-room Companions*, by William Harvey King; *A Civilian Attaché*, by Helen Dawes Brown, was a story of a frontier army post, and *Sweethearts and Wives* a collection of stories of life in the navy, by Anna A. Rogers. *My Lady and Allan Darke* was by Charles Donnell Gibson, and *That Duel at the Château Marsanac* by Walter Pulitzer; *Jennie Baxter, Journalist*, and *The Strong Arm* came from the Canadian pen of Robert Barr (Luke Sharp); Lloyd Bryce proffered *Lady Blanche's Salon: A Story of Some Souls*; Merwin Webster in *The Short Line War* exposed methods of railroad manipulation; tenement-house life was successfully studied by Walter Leon Sawyer in *A Local Habitation*; Arthur H. Veysey wrote *The Two White Elephants and Hats Off!* the latter a comedy of American social life; politics entered into the complications caused by *The Broken Locket of Will A. Garland*; from John Henton Carter we had *Ozark Post Office*; and from Algernon Sydney Logan *Not on the Chart*. To Mrs. Kate Chopin we were indebted for *The Awakening*. Novels of a religious character include *When Shiloh came*, illustrated by the author, Ambrose Lester Jackson; *The Larger Faith*, by James W. Coulter; *How they kept the Faith*, a tale of the Huguenots of Languedoc, by Grace Raymond; *A Wind-blown Flower*, by Caroline Atwater Mason, the author of *The Minister of the World and The Minister of Carthage*; *Jess: Bits of Wayside Gospel*, by Jenkin Lloyd Jones; *The Ladder of Promise*, by Mrs. Susan M. Griffith; *Father Jerome*, a story of the Spanish Inquisition, by Mrs. Hattie Arnold Clark; *The Cry Heard*, a missionary story, by Ella Perry Price; *Uncle Nathan's Farm*, advocating the virtue of tolerance, by Mrs. M. A. Cornelius; *Deficient Saints*, by Miss Marshall Saunders; *Shem: A Story of the Captivity*, by I. Breckenridge Ellis; *A Daughter of Israel*, by Rose Porter; and *A Tent of Grace*, by Adeline Cohnfeldt Lust. John King's *Question Class*, by Rev. Charles M. Sheldon, the author of *In his Steps* and *The Crucifixion of Philip Strong*; *Sabbath Nights at Pitcoonans*, by the author of *Sandy Scott's Bible Class*; and *The Gawktown Revival Club*, by J. Walter Davis, may be classed together. Social questions are the theme of *Leo Dayne*, by Mar-

garet Augusta Kellogg; E. H. Cooper traced the successive steps of a man Resolved to be Rich; Hervey White entered into the Differences of life and station; Ella Napier Lefroy proposed one standard of morality for men and women in *The Man's Cause*; *The Décadents* was a story of Blackwell's island and Newport, by Charles W. De Lyon Nichols (Shelton Chauncey); Mormonism was proclaimed *The False Star* by A. D. Gash; temperance was advocated in *The Whistle in the Alley*, by E. A. Rand; and miscegenation was discussed in *Stephen the Black*, by Caroline H. Pemberton. *The Bondwoman*, by Mrs. Marah Ellis Ryan, related to the days of slavery, as did *The Fugitive*, a tale of adventure in the days of clipper ships and slavers. *The Yarn of a Bucko Mate*, by Herbert E. Hamblen (F. Benton Williams), recounted his adventures in two oceans; *The Voyage of the Pulo Way*, by W. Carlton Dawe, contained a record of some strange doings at sea; from Cy Warman we had *Snow on the Headlight*, a story of the great Burlington strike, and *The White Mail*; and Mrs. Mollie E. Moore Davis, the author of *Under the Man-Fig*, sent out a new Texas story, *The Wire Cutters*. Oliver Iverson, by Ann Devoore, dealt largely in the mysterious and exciting; Charlotte Perkins Stetson was ghoulish and uncanny in detailing the baneful effect of *The Yellow Wall Paper*; Héloïse Durant Rose unveiled *A Ducal Skeleton*; Miss Carmichael's *Conscience*, according to Baroness Von Hutten, was a study in fluctuations; Morton Grinnell, M. D., described *An Eclipse of Memory*; Teresa Dean confided the *Reveries of a Widow* to the public; Alfred J. Cohen (Alan Dale) published *His Own Image*; Mrs. Mary J. Holmes, *The Tracy Diamonds*; Charles L. Marsh, *A Gentleman Juror*; Edgar Morette, *The Sturgis Wager*, a detective story; Josephine Bontecue Steffens, *Letitia Berkeley*, A. M.; H. S. Irwin, *Helena*; Hanson Penn Diltz, *Hollow Bracken*; N. B. Winston, *Waters that Pass Away*; and Linn Boyd Porter (Albert Ross) two novels, *The Naked Truth* and *That Gay Deceiver*. Roy L. McCardell gave his attention to *The Wage Slaves of New York*; Herbert G. Wells ransacked the realm of the improbable for the adventures contained in his story of the future, *When the Sleeper Wakes* and his *Tales of Space and Time*; H. E. Orcutt invaded *The Empire of the Invisibles*; Matthew Phipps Shiel alarmed us with *The Yellow Danger*; or, *What might happen if the Division of the Chinese Empire should estrange all European Countries*; *The Trembling of Borealis* occurred in the year 5000 (Anno Mundi) according to Paul d'Argenteuil; Leon Lewis gave details of *Andrée at the North Pole*; Matthew J. Royal invaded *The Isle of the Virgins*, as Edgar C. Blum did *Satan's Realm*; Richard Slee and Cornelia Atwood Pratt chronicled *Dr. Berkeley's Discovery*; *In Quest of Life*, by Thad W. Williams, M. D., contained the revelations of the *Wiyatao of Xipantl*, the last high priest of the Aztecs; *The Bronze Buddha*, by Cora Linn Daniels, was professedly a mystery; *A Queen of Atlantis*, by Frank Aubrey, carried on the romance begun in *The Devil Tree of Eldorado*; *A Married Man*, by Frances Aymar Mathews, recorded serious improbabilities. To spiritualistic influence were to be attributed *The Grail Brothers*, by Sarah Helen Gale, and *Behind the Veil*, anonymous, while *Fate or Law?* chronicled the results of mental healing.

Volumes of short stories not heretofore included were: *A West Point Wooing*, and *Other Stories*, by Mrs. Clara Louise Root Burnham; *Short Rations*, sketches of army life, by G. Williston Fish,

and *Trooper Tales*, by Will Levington Comfort; *Holly and Pizen*, suggestive of Ruth McEnery Stuart; *The Backward Trail*, stories of the Indians and pioneers, by Will L. Hale; *The Archbishop's Unguarded Moment*, and *Other Stories*, by Oscar Fay Adams; *The Powers at Play*, by Bliss Perry; *Sundown Leflare*, by Frederick Remington; *Tales of the Malayan Coast*, from Penang to the Philippines, by Rounseville Wildman; *Colonial Massachusetts Stories of the Old Bay State*, by Mrs. S. E. Dawes; *Pennsylvania Stories*, by Arthur Hobson Quinn; *In Old France and New*, by William McLennan; *The Goodness of St. Rocque*, and *Other Stories*, by Mrs. Alice Dunbar (Mrs. Paul Laurence Dunbar); *The Conjure Woman and The Wife of his Youth*, and *Other Stories of the Color Line*, by Charles W. Chestnutt; *The Four-masted Catboat*, and *Other Truthful Tales*, by Charles Battell Loomis; *A Daughter of Neptune*, by William Winslow; *The Loom of Destiny*, by Arthur J. Stringer; *Montezuma's Castle*, and *Other Weird Tales*, by Charles D. Cory; *Fur and Feather Tales of sporting life*, by Hamblen Sears; *Doc Horne*, a story of the streets and town, by George Ade; *Mr., Miss, and Mrs.*, by Charles Bloomingdale, Jr. (Karl); *The Greater Inclination*, by Edith Wharton; *The Eye of a God*, and *Other Tales of East and West*, by W. A. Fraser; *Adobeland Stories*, by Verner Z. Reed, the author of *Tales of the Sun Land*; *A Silent Singer*, by Clara Morris (Mrs. Clara Morris Harriott); *Men's Tragedies*, by R. V. Risley; *Transatlantics*, by Frederick W. Wendt; *Where Angels Fear to Tread*, and *Other Tales of the Sea*, by Morgan A. Robertson; *Sand and Cactus*, by Wolcott Le Clear Beard; *A Matter of Business*, and *Other Stories*, by William Curtis Stiles; *The Gam*, by C. H. Robbins, a group of whaling stories; *Lasca*, and *Other Stories*, by Mary F. Nixon; *Tiverton Tales*, by Alice Brown; *She of the West*, by Bailey Millard; *Mr. Jack Hamlin's Meditation*, and *Other Stories*, by Francis Bret Harte; *The Sixth Sense*, and *Other Stories*, by Margaret Sutton Briscoe; *The River Syndicate*, and *Other Stories*, by Charles E. Carryl; *A Village Ophelia*, by Anne Reeve Aldrich; *Of Necessity*, by H. M. Gilbert; *Ridan the Devil*, and *Other Stories*, by Louis Becke; *Tales of the Telegraph*, by Jasper Ewing Brady; *Vassar Studies*, by Julia Augusta Schwartz; *Vacation Incidents*, by A. Paul Gardiner; *The Adventures of a Freshman and The Stolen Story*, and *Other Newspaper Stories*, by Jesse Lynch Williams; *His Defense*, and *Other Stories*, by Harry Stillwell Edwards; *Tales told in a Country Store*, and *Accompanying Verse*, by Rev. Alvin Lincoln Snow; *Autumn Leaves*, verse and story, by Mary Agnes Tincker; *One of those Coincidences*, and *Ten Other Stories*, by Julian Hawthorne; *Count Lyof Nikolaievich Tolstoi*, Charles George Douglas Roberts, and others; *Annancy Stories*, of Jamaica folklore, by Pamela Colman Smith, to which Thomas Nelson Page contributed an introduction; *Fables in Slang*, by George Ade, illustrated by Claude J. Newman; *Mr. Milo Bush and Other Worthies*; *Their Recollections*, by Hayden Carruth; and *Ernest Jarrold's Mickey Finn Idylls*, with an introduction by Charles A. Dana. A new edition of George F. Pardon's *Tales from the Operas* was issued, and Nos. 30, 31, and 32 of *Tales from Town Topics*. The Library Edition of the Works of Edward Everett Hale, in ten volumes, of which the first was issued last year, was continued, Vols. II-VI being sent out.

Fine Arts.—George Lansing Raymond entitled his work upon *Proportion and Harmony of Line and Color in Painting, Sculpture, and Architect-*

ture an essay in comparative æsthetics; Esther Singleton edited and translated *Great Pictures as seen and described by Famous Writers*; from Deristhe L. Hoyt came a study of *The World's Painters and their Pictures*; while *Religio Pictoris* was set forth sympathetically by Helen Bigelow Merriman. Two valuable works on art of distinctively American type were *The Art Life of William Morris Hunt*, by Helen M. Knowles, with illustrations from his works, and *Life and Character: Drawings by W. T. Smedley*, 50 in number, with accompanying text by A. V. S. Anthony. Raphael was the title of a collection of 15 pictures and a portrait of the painter, with an introduction and interpretation, edited by Estelle M. Hurl for the *Riverside Art Series*. *Anglo-American Pottery: Old English China with American Views* purported to be a manual for collectors by Edwin A. Barber, in line with which was *Old New York on Staffordshire Pottery*, by R. F. Halsey. By the Way, a collection of short essays on music and art in general, taken from the programme books of the Boston Symphony Orchestra, by William Foster Aphthorp, filled two volumes; Hugh A. Clarke traced the relation between Music and the Comrade Arts; William J. Henderson told *How Music Developed*, tracing in critical and explanatory fashion the growth of modern music, and also contributed a volume upon *The Orchestra and Orchestral Music to the Music Lovers' Library*. Esther Singleton prepared *A Guide to the Operas*, giving a description and interpretation of the words and music of the most celebrated; and Charles Annesley in *The Standard Opera Glass* gave the detailed plots of 123 celebrated operas, with critical and biographical remarks, dates, etc., James Huneker contributing a prelude to the work. The last-named authority published *Mezzotints in Modern Music*, devoted to Brahms, Tschaiakowsky, Chopin, Richard Strauss, Liszt, and Wagner. L. C. Elson devoted a volume to *The National Music of America and its Sources*. *Stars of the Opera*, by Mabel Wagner, contained a description of 12 operas and a series of personal sketches, with interviews, of leading prima donnas, and Louis C. Strang was heard from on *Famous Actors of the Day in America and Famous Actresses of the Day in America*. The *Madonna in Legend and History*, by Elizabeth C. Vincent, had an introduction by Rev. Boyd Vincent, and was intended to give a key to many pictures otherwise meaningless. Joseph L. French treated of *Christ in Art*. Sumptuous gift books of the holiday season included also *Outdoor Pictures*, by Thure de Thulstrup; *Nature Studies in Berkshire*, by John Coleman Adams, with illustrations in photogravure from original photographs by Arthur Scott; *Plantation Sketches: Drawings of Negro Life*, by J. Campbell Phillips; *The Education of Mr. Pipp*, by Charles Dana Gibson; *Picturesque Bits of New York*, by Alfred Stieglitz; *Sketches of Lowly Life in a Great City*, by Michael Angelo Woolf, edited by Joseph Henius; *Funny Folks*, by F. M. Howarth; *Treasures of the Metropolitan Museum of Art*, described by Arthur Hoeber; and *The American Art Annual, 1898*, edited by Florence N. Levy. *Form and Color*, by Charles Behrens, containing new motives for wall and ceiling painting, with 30 colored plates, was begun with the issue of Part I. *Moments with Art* consisted of short selections in prose and verse for lovers of art, compiled by J. E. P. D. Arizona, by Augustus Thomas, was published with 12 half-tone reproductions from the play, making an attractive volume, and Peter Newell's *Pictures and Rhymes* delighted the admirers of his humorous vein.

General Science.—The popularization of science goes on apace, and a number of books interesting to young people are published yearly, in addition to a few works of standard value. From John Fiske came *A Century of Science, and Other Essays*, while D. Kerfoot Shute, M. D., supplied *A First Book in Organic Evolution*. *Outlines of General Physics* were supplied by Prof. James Stacy Stevens, and *A Text-book of General Physics* was written for the use of colleges and scientific schools by Charles S. Hastings and Frederick E. Beach. *Elements of Physics for Use in High Schools* came from Henry Crew, *A Text-book of Physics* from W. Watson, and Vol. II of *A Text-book of Physics*, by John H. Poynting and Joseph J. Thomson, was devoted to Sound. *Stars and Telescopes* was a handbook of popular astronomy, by Prof. David P. Todd, founded on the ninth edition of Lynn's *Celestial Motions*; Mary E. Byrd prepared *A Laboratory Manual in Astronomy*; Richard Hinkley Allen wrote at length of *Star Names and their Meanings*; *The Wilderness of Worlds*, by George W. Morehouse, gave a popular sketch of the evolution of matter from nebula to man and return; and *The Family of the Sun* was the title given by Edward S. Holden to a collection of conversations with a child. *Minerals in Rock Sections*, by Lea McIlvaine Luquer, set forth the practical methods of identifying minerals in rock sections with the microscope, especially arranged for students in technical and scientific schools; *The Characters of Crystals*, by Alfred J. Moses, was intended as an introduction to crystallography; and *The Geology of Point Reyes Peninsula* was contributed to the *Bulletins of the Department of Geology, University of California*, by F. M. Anderson. *The Foundations of Zoölogy*, by William Keith Brooks, formed Vol. V of the *Columbia University Biological Series*; John Stirling Kingsley was the author of a *Text-book of Vertebrate Zoölogy*; and Oliver Davie, the author of *Nests and Eggs of North American Birds*, published *Reveries and Recollections of a Naturalist* in an edition limited to 200 copies. *A Field Key to the Land Birds* was supplied by Edward Knobel, 150 figures of the birds of the United States being distributed on 9 colored plates and arranged according to size. F. H. Yorke, M. D., was heard from on *Our Ducks*; D. Lange in *Our Native Birds* told how to protect them and attract them to our homes; Mrs. Harriet Mann Miller (*Olive Thorne*) was an undoubted authority in *The First Book of Birds*, which had 8 colored and 12 plain plates, as well as 20 figures in the text; while Reginald Heber Howe proved himself at home on *The Birds' Highway*, illustrating his own work with the assistance of Louis Agassiz Fuertes. *Our Feathered Friends* was a little book for young people, and Charles A. Keeler caught *A First Glance at the Birds*. William Everett Cram wrote attractively of *Little Beasts of Field and Wood*; William J. Long published a first series of *Ways of Wood Folk*; James Newton Baskett told *The Story of the Fishes in Appleton's Home Reading Books*; Belle S. Cragin gave instructions how to collect, preserve, and study *Our Insect Friends and Foes*; Henry Meade Bland sent out *Studies in Entomology*; and a second series of *Stories of Insect Life*, devoted to summer and autumn, came from Mary E. Murtfeldt and Clarence Moores Weed. The last-named author also compiled and edited *The Insect World*, another of Appleton's *Home Reading Books*. Margaret Warner Morley contributed two volumes, akin in theme, entitled respectively *The Honey Makers* and *The Bee Peo-*

ple, illustrating them herself, as well as a brief sketch of Little Wanderers of the plant world. Sherman F. Denton followed the first section of Moths and Butterflies of the United States East of the Rocky Mountains, issued last year, with Sections 2-6, and *Everyday Butterflies: A Group of Biographies*, was from the pen of Samuel Hubbard Scudder. *Animal and Plant Lore*, collected from the oral tradition of English-speaking folk by Mrs. Fanny D. Bergen, formed Vol. VII of the *Memoirs of the Animal Folklore Society*. Vol. XII of *The Silva of North America*, by Charles Sprague Sargent, was devoted to *Coniferae*; *Plant Relations*, by John M. Coulter, belonged to the series of *Appletons' Twentieth Century Text-books*; *The Teaching Botanist*, by William F. Ganong, was intended as a manual of information upon botanical instruction; *Field, Forest, and Wayside Flowers*, by Maud Goings (E. M. Hardinge), contained also chapters on grasses, sedges, and ferns; Frances Theodora Parsons told *How to Know the Ferns* in a tasteful volume, illustrated by Marion Satterlee and Alice Josephine Smith; while Alice Lounsberry was the author of *A Guide to the Wild Flowers*, to which Dr. N. L. Britton contributed an introduction, and which was illustrated with 64 colored and 100 black-and-white plates and 54 diagrams. Edward Knobel was again heard from on *The Grasses, Sedges, and Rushes of the Northern United States*, providing an easy method of identification; Thomas H. Macbride wrote on *The North American Slime Moulds*, giving a list of all species of myxomycetes hitherto described from North America, including Central America; and Lucien Marcus Underwood discoursed of *Molds, Mildews, and Mushrooms*. Mark Walrod Harrington wrote *About the Weather for the Appletons' Home Reading Books* in a highly instructive manner. A. S. Percival drew up a manual of *Optics for students*, and *A Treatise on Photographic Optics*, by R. S. Cole, was an acceptable addition to the literature of the art which has proved so popular of recent years. Joseph Torrey, Jr., arranged *Elementary Studies in Chemistry*; Profs. H. H. Nicholson and Samuel Avery, *Laboratory Exercises for the same study*, to accompany any elementary text; and John F. Woodhull and M. B. Van Arsdale, *Chemical Experiments*. *The Spirit of Organic Chemistry*, by Arthur Lachman, intended as an introduction to the current literature of the subject, had an introduction by Paul C. Freer, M. D.; William A. Tilden wrote *A Short History of the Progress of Scientific Chemistry in our Own Times*; *The Arithmetic of Chemistry* was a useful handbook by John Waddell; *Indicators and Test Papers* had their source, preparation, application, and tests for sensitiveness investigated by Alfred I. Cohn; and James Walker was the author of a general *Introduction to Physical Chemistry*. *The Rise and Development of the Liquefaction of Gases* was traced by Willett L. Hardin, and *Liquid Air and the Liquefaction of Gases* was the absorbing theme of Thomas O'Connor Sloane. H. E. Hadley treated of *Magnetism and Electricity for Beginners*; *Electric Wiring, Fittings, Switches, and Lamps*, a practical book for electric-light engineers, etc., by W. Perren Maycock, contained 360 illustrations; Maurice A. Oudin described *Standard Polyphase Apparatus and Systems*; W. S. Franklin and R. B. Williamson examined *The Elements of the Alternating Currents*. *Mensuration*, with Special Application of the Prismoidal Formula, was briefly gone into by S. W. Furst, and John S. Barr explained the *Kinematics of Machinery*. *The Indians of To-day*

were the subject of a sumptuous volume by George Bird Grinnel, with 50 full-page portraits of the most famous chiefs and 4 pictures in color, and American Indians were also the theme of Frederick Starr in the series of *Ethno-geographic Readers for schools*. *Creation Myths of Primitive America in Relation to the Religious History and Mental Development of Mankind* were studied by Jeremiah Curtin, and from Henry T. Finck we had a volume on *Primitive Love and Love Stories*, in connection with which may be mentioned *The Kiss and its History*, by Christopher Nyrop, written in all seriousness. *Duality of Voice* claimed to be an outline of original research by Emil Sutro.

To intellectual science belong *A Theory of Reality*, by George Trumbull Ladd, an essay in metaphysical system upon the basis of human cognitive experience; *Social and Ethical Interpretations in Mental Development*, by James Mark Baldwin, whose work upon *Mental Development in the Child and the Race* went through a second corrected edition; *A Syllabus of Psychology*, by James Hervey Hyslop, and *A Syllabus of an Introduction to Philosophy*, by Walter T. Marvin, both in the series of *Columbia University Contributions to Philosophy, Psychology, etc.*; *Psychology and Life*, by Prof. Hugo Munsterberg; *A Brief Introduction to Modern Philosophy*, by Arthur Kenyon Rogers; *A History of Modern Philosophy in France*, by Lucien Levy Bruhl; a new issue of *The Perceptualist*, by Edward J. Hamilton, D.D.; *The Will and its World: Psychical and Ethical*, by Denton J. Snider; and *Harmonica of Evolution*, by Florence Huntley.

History.—*The History of the United States under the Constitution*, by James Schouler, was completed by the issue of the sixth volume during 1899, eight years after the appearance of the fifth volume. It was devoted to a *History of the Civil War, 1861-1865*. Very nearly the same period was covered by the fourth volume of James Ford Rhodes's *History of the United States from the Compromise of 1850*, which brings the work to its midway point. The *Greater Republic* was the title of a history of the United States from the earliest days to the present time by Charles Morris, and Julian Hawthorne published a *History of the United States from the Landing of Columbus to the Signing of the Peace Protocol with Spain*, in three volumes. A *History of the American Nation* was contributed by Prof. Andrew Cunningham McLaughlin to the *Twentieth Century Series*. *Sidelights on American History*, by Henry W. Elson, were confined to the national period before the civil war; *The Growth of the Constitution in the Federal Convention of 1787* was followed by William Montgomery Meigs in an effort to trace the origin and development of each separate clause from its first suggestion in that body to the form finally approved; and from Hamilton P. Richardson we had a work similar in scope, *The Journal of the Federal Convention of 1787, Analyzed*. *The Jacksonian Epoch*, by Charles H. Peck, was an interesting sketch of a formative period in our political life; *The End of an Era*, by John Sergeant Wise, a son of Gov. Wise, of Virginia, pictured antebellum life in that State and the stirring times following John Brown's raid: *East Tennessee and the Civil War*, by Oliver Perry Temple, may be mentioned in connection with *The Civil War on the Border*, by Wiley Britton, a narrative of military operations in Missouri, Kansas, Arkansas, and the Indian Territory during the years 1863-'65; Vol. II of *The Story of the Civil War*, by John Codman Ropes, covered

The Campaigns of 1862; and two other volumes are to be noted belonging to the momentous period, When and Where we met Each Other on Shore and Afloat, by Theodore D. Strickler, and The Song of the Rappahannock, by Ira Seymour Dodd. A Source Book of American History was edited for schools and readers by Prof. Albert Bushnell Hart, John W. Gibson wrote A School History of the United States of America, H. A. Guerber told The Story of the Great Republic in the Series of Eclectic School Readings, and The Story of Our Flag was written by Addie Guthrie Weaver. A History of American Privateers, by Edgar Stanton MacLay, was an able companion volume to his History of the United States Navy, and was got up in attractive guise; it presented the first comprehensive account of one of the most picturesque and absorbing phases of our maritime warfare prior to the declaration of Paris in 1856. Some Account of the Capture of the Ship Aurora, written by Peter Freneau in 1780, was published for the first time during the year by the consent of the heirs of Jane Leadbetter, the poet's granddaughter, to whom he bequeathed it. The Crisis of the Revolution, by William Abbott, was pronounced the handsomest book of the autumn season, and contained the story of Arnold and André, now for the first time collected from all sources, and illustrated with views of all places identified with it. The Dutch and Quaker Colonies in America came next in order to the master hand of John Fiske; Edward McCrady published the second volume of his able History of South Carolina under the Royal Government, carrying us through the period 1719-'76; in The Puritan Republic Dan Wait Howe gave a history of the Puritan Commonwealth of Massachusetts; Vol. II of A History of the Quaker Government in Pennsylvania, by Isaac Sharpless, completed that work, and portrayed for us The Quakers in the Revolution; The German Emigration to America, 1709-1740, formed Part III of a narrative and critical history prepared at the request of the Pennsylvania German Society by Henry Eyster Jacobs, D. D., and was published in an edition limited to 100 copies; a new edition was made of The Social History of Flatbush and Manners and Customs of the Dutch Settlers in Kings County by Gertrude Lefferts Vanderbilt; Rhode Island and the Formation of the Union, by Frank Greene Bates, formed Vol. X of Columbia University Studies in History, Economics, and Public Law; and The Narragansett Friends' Meeting in the XVIII Century, by Caroline Hazard, contained also a chapter on Quaker beginnings in Rhode Island. The Old Northwest: The Beginnings of our Colonial System, was from the pen of Rev. Burke Aaron Hinsdale; Vols. XXXIII to LVIII were issued of The Jesuit Relations and Allied Documents; and in the Johns Hopkins University Studies we had Slavery in the State of North Carolina, by John Spencer Bassett; The Financial History of Baltimore, by J. H. Hollander; The Labadist Colony in Maryland, by Bartlett B. James; and a History of the Know-nothing Party in Maryland, by Laurence F. Schmeckebier. Stories of the Old Bay State were told by Elbridge Streeter Brooks for young readers, for whom he also provided The Story of our War with Spain. This theme proved no less fruitful this year than last. Hon. Henry Cabot Lodge based on official reports his work upon The War with Spain; Henry B. Russell, Redfield Proctor, and John M. Thurston collaborated upon An Illustrated History of our War with Spain, giving its causes, incidents, and results; Parts I-XVI of Harper's Pictorial History

of the War with Spain, to which Gen. Nelson A. Miles contributed an introduction, appeared during the year; The Story of the War of 1898, by W. N. King, Jr., had introductions by Gen. O. O. Howard and Capt. Robley D. Evans; Lessons of the War with Spain were drawn by Capt. Alfred Thayer Mahan; Under Three Flags in Cuba, by George Clarke Musgrave, gave a personal account of the Cuban insurrection and the Spanish-American War from the standpoint of a sufferer therein; George Kennan was heard from in Campaigning in Cuba; John D. Miley proved himself to have been in Cuba with Shafter; and John Bigelow, Jr., published Reminiscences of the Santiago Campaign. The Fight for Santiago, by Stephen Bonsal, told the story of the soldier in the Cuban campaign from Tampa to the surrender; The Story of the Rough Riders, 1st U. S. Volunteer Cavalry, by Edward Marshall, was illustrated from photographs taken on the field and with drawings by Richard F. Outcault; The Fun and Fighting of the Rough Riders was given briefly by Tom Hall; Andrew S. Draper treated The Rescue of Cuba as an episode in the growth of free government; The Maine was the title of an account of the destruction of the battle ship by her captain, Charles Dwight Sigsbee; and from Richmond Pearson Hobson we had another personal narrative, that of The Sinking of the Merrimac in the harbor of Santiago de Cuba, June 3, 1898. With Sampson through the War, by W. A. M. Goode, contained chapters contributed by the rear admiral, Capt. Robley D. Evans, and Commander C. C. Todd; From Yanco to Las Marias, by K. Stephen Herrman, told the story of the campaign in western Puerto Rico; The Spanish-American War was the title of a book of the events of the war described by eyewitnesses, akin to which was the volume of Reminiscences and Thrilling Stories of the War, by Returned Heroes, for which we were indebted to James Rankin Young and J. Hampton Moore. Henry Christopher McCook, D. D., devoted a volume to The Martial Graves of our Fallen Heroes in Santiago de Cuba; Blue Jackets of '98 was a history of the Spanish-American War for boys, by Willis J. Abbot, in the Blue Jacket Series. Amos Kidder Fiske contributed The West Indies to the Story of the Nations Series, and also published The Story of the Philippines, a popular account of the islands from their discovery by Magellan to the capture of Dewey; The Friars in the Philippines were apologized for by Rev. Ambrose Coleman; The Expedition to the Philippines was described by Francis Davis Millet, the artist-correspondent; The History and Conquest of the Philippines and our Other Island Possessions came from Alden March; and Oscar King Davis reviewed Our Conquests in the Pacific. Pike and Cutlass: Hero Tales of our Navy, were illustrated by the author, G. Gibbs, and from Edward Kirk Rawson we had Twenty Famous Naval Battles: Salamis to Santiago, in two volumes, illustrated with a remarkable series of maps, plans, and cuts. To military history belong The Ninth New York Heavy Artillery, by Alfred Seelye Roe; The '98 Campaign of the 6th Massachusetts, U. S. V., by Frank E. Edwards; The History of the One Hundred and Sixty-first Regiment Indiana Volunteer Infantry, by Rev. W. E. Biederwolf; and Glimpses of the Nation's Struggle, Fourth Series, a collection of papers read before the Minnesota Commandery, Military Order of the Loyal Legion of the United States, in 1892-'97. The Great Company was the title of a history of the honorable company of merchant adventurers trading in Hudson Bay, by Beckles

Willson, to which Lord Strathcona and Mount Royal contributed an introduction, and which was illustrated with original drawings by Arthur Heming. Another Canadian work, of far greater compass and consequence, was *The United Kingdom: A Political History*, by Prof. Goldwin Smith, in two volumes. Prof. George Burton Adams gave an outline of the development of European History; Hon. Thomas E. Watson undertook to condense *The Story of France* from the earliest times to the consulate of Napoleon Bonaparte into two volumes, the first of which extended to the end of the reign of Louis Fifteenth; Germany: *Her People and their Story*, was a popular history of the beginnings, rise and development, and progress of the German Empire from Arminius to William II, told for Americans by Mrs. Augusta Hale Gifford; Frederick Albion Ober contributed *Spain to Appletons' series of History for Young Readers*; Leonard Williams wrote *A Child's History of Spain*; and from Mrs. Mary Platt Parmele we had *A Short History of Spain*. Elizabeth Wormeley Latimer wrote of Judea from Cyrus to Titus, 537 B.C.—70 A.D. The first of eight volumes destined to contain *The Library of Universal History*, by Israel Smith Clare, was devoted to Ancient Oriental Nations; eight volumes also contained *Ridpath's History of the World*, by John Clark Ridpath; Orlando P. Schmidt was the author of *A Self-verifying Chronological History of Ancient Egypt*, from the Foundation of the Kingdom to the Beginning of the Persian Dynasty; *A Book of Startling Discoveries*; *Outlines of General History* were prepared by Frank Moore Colby; and from Edwin A. Grosvenor we had a *Contemporary History of the World. The Battles of All Nations, from the Earliest Times to the Present Day*, according to Edgar Saltus, filled two volumes. How the Black St. Domingo Legion saved the Patriot Army in the Siege of Savannah, 1779, was the subject of one of the brief *Occasional Papers of the American Negro Academy*, contributed by T. G. Steward. Leslie's *History of the Greater New York* was an important undertaking, and from Charles Burr Todd we had *A Brief History of the City of New York*.

Jurisprudence.—More books were published in this department during 1899 than in any other, excepting fiction. Four hundred and fifty-four new books and 35 new editions were recorded, and of the total of 489, 482 were by American authors.

The second volume of Austin Abbott's *Forms of Pleading for Legal or Equitable Relief* was completed after the author's decease by Charles G. Alden and given to the public, thus completing a work of standard value, prepared with especial reference to the codes of procedure of the various States and adapted to the present practice in many common-law States; *A Treatise on the Practice and Procedure of the United States Supreme Court* was written by Heber J. May; Vol. I initiated a series of *American Practice Reports* of official leading cases in all State and Federal courts, edited by Charles A. Ray; *A Manual of Practice in the Courts of the United States*, by Robert Desty, went through a ninth edition, revised and brought to date, etc., by M. A. Folsom; and a second edition was sent out of Edwin Baylies's *Trial Practice*. Joseph H. Budd was the author of *A Treatise on the Law of Civil Remedies*; J. H. Levy edited *The Necessity for Criminal Appeal*, as illustrated by the Maybrick Case and the *Jurisprudence of Various Countries*; *A Summary of Torts* was made by Prof. Frank Alexander Erwin; and W. L. Williams set

forth *Statutory Torts in Massachusetts*. Two volumes contained Woolen's *Trial Procedure*, William Watson Woolen's treatise on the law of Indiana, and Kentucky Criminal Law and Procedure came from James M. Roberson. A sixth edition was sent out of George Tucker Bispham's *Principles of Equity*, and a second edition of *The Law of Pleading in Civil Actions and Defenses under the Code*, by Edgar B. Kinkead, in two volumes. Shepard's Citations to the American and English Encyclopædia of Law were compiled under the personal supervision of Frank Shepard; Vols. XIII, XIV, XV, XVI, and XVII were issued of the *Encyclopædia of Pleading and Practice*, edited by William M. McKinney; and Vols. VIII, IX, and X of the *Encyclopædia of Forms and Precedents for Pleading and Practice*, edited by William Mack and Howard P. Nash, under the supervision of James Cockcroft. A volume of *Hornbook Monographs* appeared anonymously, and a second revised and enlarged edition was made of *The Law of Presumptive Evidence*, by John D. Lawson. W. C. Rogers published *A Treatise on the Law of Domestic Relations*; Jeremiah Smith, *Cases on Selected Topics in the Law of Persons*; Charles E. Chadman wrote for the *Home Law School Series* on *Personal Rights and the Domestic Relations* and on *Principles of the Law of Contract and of Partnership*; Francis M. Burdick expounded *The Law of Partnership*; David T. Corbin set forth *The Law of Personal Injuries in the State of Illinois*, and the *Remedies and Defenses of Litigants*; Stewart Chaplin drew up *A Treatise on the Law of Landlord and Tenant as it Exists in the State of New York*; and Edwin W. De Leon and Sidney N. Moon collaborated upon *The Law of Liability. Vol. III of The Law of Negligence*, by William Hardcastle Brown, completed that work; John M. Gardner edited Vols. IV and V of *American Negligence Reports, Current Series*, and T. F. Hamilton Vol. IX of *American Negligence Cases*; a second revised and enlarged edition was made of *The Civil Liability for Personal Injuries arising out of Negligence*, by Henry F. Buswell, and a second edition of *Cases on the Law of Damages compiled by Floyd R. Mechem*; and John J. Crawford prepared a third edition of *A Treatise on the Law of Contributory Negligence*, by Charles Fisk Beach, Jr. Edward W. Spencer arranged *The Elements of Commercial Law as a practical text-book for use in schools*, and a work of similar character was O. B. Parkinson's *Outlines of Commercial Law. A Treatise on the Law of Commercial Paper*, by Joseph F. Randolph, in three volumes, went through a second edition; Montgomery Rollins compiled *The Laws regulating the Investment of Bank Funds*; Vol. XI of *The Digest of Insurance Cases*, edited by John A. Finch, was issued, as was *The Indicator's Digest of Insurance Decisions*. Three volumes contained *The Annotated Corporation Laws of all the States*, compiled and edited by Robert C. Cumming, Frank B. Gilbert, and Henry L. Woodward. Vol. VII completed Seymour Dwight Thompson's *Commentaries on the Law of Private Corporations*, and Vol. VII was issued of the *American Corporation Legal Manual*, edited by Charles L. Borgmeyer. Frank H. Sommer prepared citations, extracts, and cases on *Property in Land for use in the New York University Law School*; Vol. V was issued of *The Law of Real Property*, edited by Tilghman Ballard and E. Emerson; Jaspar C. Gates compiled *Cases on the Law of Real Property*; J. T. Donly offered *A Concise Summary of the Principles and Decisions relating to Realty Practice in Pennsylvania and*

Adjoining States; John J. Post drew up an Index of Wills proved in the Supreme Court, Courts of Common Pleas, etc., of New York; and Questions and Answers on Probate Law were arranged by William W. Stewart and Michael J. Keane. John J. Crandall edited *Leading Cases, American and English, on the Law of Legal Tender and Money*, Frank O. Loveland published *A Treatise on the Law and Proceedings in Bankruptcy*, and yet another *Treatise on Bankruptcy* came from John and James Arnold Lowell. Edwin C. Brandenburgh published an *Index Digest of Bankruptcy Decisions and The Law of Bankruptcy*, including the National Bankruptcy Law of 1898; from William Miller Collier we had *The Law of Bankruptcy and the National Bankruptcy Act of 1898*, as well as *The Official Rules, Forms, and General Orders in Bankruptcy* prescribed by the Supreme Court of the United States under this act; Williamson's *Complete Code of Practice in Bankruptcy*, now in Force, was sent out, as was Johnson's *Handy Reference Book of Law and Fact*, by Walter Johnson, also containing the national bankruptcy act of 1898. George W. Kirchwey was responsible for *A Partial Collection of Cases and Other Authorities on the Law of Mortgage*, as was James Avery Webb for *A Treatise on the Law of Usury* and, incidentally, of Interest, and John C. Kleber for *Void Judicial and Execution Sales. A Treatise on the American Law of Replevin* came from Roswell Shinn, *A Selection of Cases on the Law of Suretyship* from James Barr Ames, and *A Treatise on the Modern Law of Municipal Securities* from Bayard T. Hainer. *The Jurisdiction of Federal Courts*, as limited by the citizenship and residence of the parties, was shown by Howard M. Carter; *Cases on Private International Law* were the work of John W. Dwyer; William D. Guthrie delivered *Lectures on the Fourteenth Article of Amendment Law*; *The United States Internal Revenue Laws now in Force* were published with an appendix, etc., by Mark and William Ash; *The United States War Revenue Law of June 13, 1898*, was set forth with annotations and references compiled by T. F. Carmody and F. M. Peasley; *Foreign Patent and Trade-mark Laws* were codified by Arthur P. Greeley; and a *Digest of Decisions in the Patent Office and the United States Courts in Patents, Trade-marks, Copyrights, and Labels*, the annual volume for 1898, by Amos W. Hart, was intended as a supplement to Hart's *Digest, 1896-1898*. Louis M. Saunders also published an *Annual Digest of the Decisions of the Supreme Court of United States, the Federal Courts, and of the Commissioner of Patents in Matters relating to Patents*. Vol. VII was issued of *United States Interstate Commerce Reports*; Vol. I of *A Handbook of the Decisions of the Supreme Court of the United States*, by Henry De Forest Clarke, covered the period from the date of its organization to the October term of 1891, and Vol. II covered October terms, 1891-'98; Books 1, 2, and 3 of *Notes on United States Reports*, a brief chronological digest of points determined in decisions of the Supreme Court, by Walter Malins Rose, were published, as were the *Index Digest: Supplement of the United States Supreme Court*; Vols. CLXXI to CLXXIV inclusive of *United States Supreme Court Reports*, by J. C. Bancroft Davis; Book 43 of the complete edition of the same Reports as contained in these volumes, with headlines, headnotes, etc., by Stephen K. Williams; and Vols. XVIII and XIX of the permanent edition of *The United States Supreme Court Reporter*; Vols. XXX to XXXVI inclusive of *United States Circuit Courts of Appeals Re-*

ports; and nine volumes of *United States Courts of Appeal Reports*, as well as Vols. LXXXVII to XCVI inclusive of the *United States Federal Reporter*, permanent edition. Vols. VI, VII, VIII, IX, X, XII, and XIII of the *American Digest* (Century edition), a complete digest of all reported American cases from the earliest times to 1896, appeared. Vol. XIII, bringing the work to *Costs-Courtyard*, and the *American Digest Annual*, continuing the Century edition, was sent out for 1899. *American and English Corporation Cases*, edited by Thomas J. Michie, were continued with the issue of Vol. VIII, new series, and *American and English Railroad Cases*, for which we are indebted to the same editor, with Vols. X, XI, XII, XIII, and XIV. He also made a *Digest to cases reported in Vols. I to X inclusive*, and began a series of *Municipal Corporation Cases* with the issue of the first volume. Vol. V was reached of *American and English Decisions in Equity*, annotated by Ardemus Stewart, and Vols. X, XI, XII, and XIII of the second edition of the *American and English Encyclopædia of Law*, by David S. Garland and Lucius P. McGehee, under the supervision of James Cockcroft, brought the work to *Feud to Forwardness*. Vol. VI of *The General Digest, American and English*, annotated, new series, remains to be mentioned, as do Vols. LXIV to LXIX inclusive of *American State Reports*, reported and annotated by A. C. Freeman, and a brief digest to Vols. LXI to LXVI, with index to the notes and a table of cases reported, by J. M. Ross. The permanent editions of the *United States Federal Reporter*, *Atlantic Reporter*, and *Pacific Reporter* were increased with the issue of several new volumes respectively, and the Reports of the several States were too numerous to be included. *The Lawyers' Reports Annotated*, by B. A. Rich and Henry P. Farnham, in addition to the issue of Books 41 to 44 inclusive, contained a *Digest of the cases*, Vols. XXI to XL, with table of cases and index to annotations and briefs, Vols. I to XL. Vols. III and IV of *A Digest of Decisions and Encyclopædia of Pennsylvania Law, 1754-1898*, by George Wharton Pepper and William Draper Lewis, covered respectively *Constitutions to Corporations and Costs to Deeds*; *A Treatise on the Poor Laws of Pennsylvania* was written by Calvin G. Beitel; *Salem Dutcher collected Expressions of Law and Fact construed by the Courts of Georgia*; *Indiana Municipal Law* was handled by John E. Scott; and W. H. Whittaker drew up *The Ohio Justices' Code*. Arthur English was the author of *A Dictionary of Words and Phrases used in Ancient and Modern Law*; A. H. Garland imparted his Experience in the Supreme Court of the United States, with *Some Reflections and Suggestions as to that Tribunal*; *Natural Law and Legal Practice* were the theme of lectures delivered at the Law School of Georgetown University by René I. Holand; *Questions and Answers for Bar Examination and Review* were prepared by Charles S. Haight and Arthur M. Marsh; and J. W. Donovan wrote on *Skill in Trials*. *Questions and Answers on Twenty of the most Important Legal Subjects* were designed especially for the use of law students by Wilber A. Owen, and Paschal H. Coggins discoursed in brief compass on *Law and How to Keep Out of It*. J. H. Hubbell and Joseph A. Boyer edited respectively *Hubbell's Legal Directory* and *Boyer's Legal Directory* as usual.

Juvenile.—Books for young people were more numerous than ever, and ranked third in the list of publications, yielding precedence only to the departments of fiction and law. The total showed

434 new books sent out in 1899, as compared with 356 in 1898, when they occupied the fifth place in point of numbers. The familiar names of authors are found. Marguerite Bouvet told Tales of an Old Château; Mrs. Adeline Dutton Train Whitney, notwithstanding her seventy-five years, proved as interesting as ever in her adaptation of Square Pegs to the traditionally unreceptive round holes; Prof. David Starr Jordan entered a new field with The Book of Knight and Barbara, a series of stories told to children and corrected and illustrated by children. The Queen's Rangers, by Charles Ledyard Norton, was a story of Revolutionary times, as were When Boston braved the King, by W. E. Barton; The Young Minuteman, by William P. Chipman, in the Young Patriot Series; The Minute Boys of Bunker Hill, by Edward Stratemeyer; An Unknown Patriot, by Frank S. Child; A Jersey Boy in the Revolution, by Everett T. Tomlinson; A Revolutionary Maid, by Amy Ella Blanchard; and A Little Daughter of the Revolution, by Agnes Carr Sage. Lucy Foster Madison chronicled A Maid of the First Century; Mary Devereux wrote of the passage from Kingdom to Colony; Mrs. Elizabeth Williams Champney contributed A Daughter of the Mayflower to the series of Dames and Daughters of Colonial Days; Soldier Rigdale, by Beulah Marie Dix, told how he sailed in the same ship and how he served Miles Standish; The Young Puritans in Captivity, by Mary Prudence Wells Smith, appeared in the Young Puritan Series; The Boys of Serooby came from Ruth Hall, the author of In the Brave Days of Old; Camping on the St. Lawrence, by Everett T. Tomlinson, carried us on the trail of the early discoverers; Fire and Drum at Louisburg, by J. Macdonald Oxley, tells its own story; Ben Comee was a tale of Rogers's Rangers, 1758-'59, by M. J. Canavan; and from Hezekiah Butterworth we had The Treasure Ship, a tale of Sir William Phipps, the regicides, and the intercharter period of Massachusetts, and The Story of Magellan and the Discovery of the Philippines. F. H. Costello was heard from On Fighting Decks in 1812. James Otis Kaler was more prolific than ever, sending out With Perry on Lake Erie; Captain Tom, the Privateersman of the Armed Brig Chasseur; Christmas at Deacon Hackett's, a sequel to How Tommy saved the Barn; The Life Savers; Messenger No. 48; Telegraph Tom's Adventure; Off Santiago with Sampson and When Dewey came to Manila, both in the Stories of American History Series; At the Siege of Havana (in 1762); and The Swamp Fox. William O. Stoddard published Running the Cuban Blockade, The Dispatch Boat of the Whistle (a story of Santiago), and Ulric the Jarl, purporting to be a story of the penitent thief. Cadet Standish of the St. Louis came from William Drysdale; When Santiago Fell, by Ralph Bonehill, appeared in the Flag of Freedom Series, and from the same author we had A Sailor Boy with Dewey; Loyal Hearts and True, by Ruth Ogden, recalled our navy in the war with Spain, as did Cleared for Action, by Willis Boyd Allen, a sequel to Navy Blue; Edward Stratemeyer was again heard from with Fighting in Cuban Waters; or, Under Schley on the Brooklyn, in the Old Glory Series, and Under Otis in the Philippines; he also went To Alaska for Gold, and completed the skeleton left by William Taylor Adams (Oliver Optic) of An Undivided Union for the Blue and Gray—On Land Series. Forward March, by Kirk Munroe, was yet another story of the Spanish-American War, and from the same pen we had Shine Terrill and Midshipman Stuart. Henry in the War, by Gen. Oliver Otis Howard,

and Uncle Sam's Soldiers, by Oscar Phelps Austin, found favor with young readers. G. Waldo Browne described the doings of Two American Boys in Hawaii, as did Egerton Ryerson Young The Winter Adventures of Three Boys in the Great Lone Land; George Bird Grinnell followed Jack, the Young Ranchman; and Russell Doubleday in Cattle Ranch to College recited the true tale of a boy's adventures in the far West. The Delahoydes, a story of boy life on the old Santa Fé trail, was, of course, by Henry Inman, and from the same pen we had also A Pioneer from Kentucky. The Making of Zimri Bunker, by William J. Long, appeared in the Cosy Corner Series; Osceola, Chief of the Seminoles, by H. R. Gordon, presented accurately the Seminole war of 1835-'42; and from Edward S. Ellis we had Iron Heart, War Chief of the Iroquois, in the War Chief Series, in addition to The Young Gold Seekers of the Klondike, The Secret of Coffin Island, The Land of Wonders, Dorsey, the Young Inventor, Lost in the Rockies, and Through Jungle and Wilderness. Frank R. Stockton republished in book form, and under the title of The Young Master of Hyson Hall, a story contributed to a paper for boys several years ago; Elizabeth Harrison illustrated in Two Children of the Foothills the principles set forth in A Study of Child Nature; Hamlin Garland's account of Boy Life on the Prairie was illustrated by E. W. Deming; Walter S. Phillips (El Comanche) told Just about a Boy; Gertrude Smith gave her attention to The Boys at Marmiton Prairie; Harry Castlemon (C. Austin Fosdick) wrote The White Beaver; Horatio Alger, Rupert's Ambition; Herbert Elliott Hamblen (F. Benton Williams), We Win: The Life and Adventures of a Young Railroad; and Albert Bigelow Paine, The Beacon Prize Medals, and Other Stories. For boys we had Jack Chumleigh at Boarding School, by Maurice Francis Egan; Character Chiseling; or, Some Hours with the Oregon Quartette, by Mrs. Mary Anderson Hawkins; Professor Pin, by Mrs. Frank Lee; Across the Campus, by Caroline M. Fuller; A College Boy, by Anthony Yorke; Grant Burton, the Runaway, written and illustrated by W. Gordon Parker; Ward Hill at College, by Everett T. Tomlinson, a sequel to Ward Hill at Weston and Ward Hill, Senior; and The Half Back, a story of school, football, and golf, by Ralph Henry Barbour, illustrated by B. West Clinedinst. Two Chums, by Minerva Thorpe, was the story of a boy and his dog; Mrs. I. T. Thurston published three books, The Captain of the Cadets, A Village Contest; or, No Surrender, a sequel to A Bachelor Maid and her Brother, and The Bishop's Shadow, the bishop in the case being the late Rev. Phillips Brooks. Indian Child Life was the subject of a handsome color book by the artist Edwin Willard Deming, with black-and-white designs included in the text, and new stories by Therese O. Deming. Tatong, the Little Slave, was a story of Korea by Annie Maria Barnes; Lobo, Rag, and Vixen, by Ernest Seton Thompson, contained the personal histories of his animal favorites; Wabeno the Magician, by Mabel Osgood Wright, was intended as a sequel to Tommy Anne and the Three Hearts; Among the Farmyard People, by Clara Dillingham Pierson, was in line with her previous work, Among the Forest People and Among the Meadow People; Captain Kodak, by Alexander Black, was a camera story; Ray Stannard Baker in The Boy's Book of Inventions told stories of the wonders of modern science; William Drysdale supplied Helps for Ambitious Boys; The Iron Star and what it saw on its Journey through the Ages

from Myth to History, by John Preston True, presented a series of historical stories; Edward Brooks told *The Story of the Æneid* for boys and girls; Charles J. Bellamy celebrated the Return of the Fairies; and *The Island Impossible*, by Harriet Morgan, was illustrated by Katharine Fyle. *Wheat and Huckleberries* contained the adventures of Dr. Northmore's daughters, recorded by Charlotte M. Vaile, and Felix J. O'Neil described *More Fun than Huckleberries*. A Bonnie Boy was a story of happy days by Mrs. Julia MacNair Wright; Lily Foster Wesselhoeft was heard from in *Madam Mary of the Zoo*; A. G. Plympton illustrated her own account of *A Flower of the Wilderness*; and Lucy Randolph Fleming found a heroine in *Alice Withrow*. The *Stories Polly Pepper* told to the *Five Little Peppers* in the *Little Brown House*, according to Mrs. Harriet Mulford Lothrop (Margaret Sidney), were illustrated by Jessie McDermott and Ethelred B. Barry; Mrs. Ellen Olney Kirk wrote for girls of *Dorothy and her Friends*; and another writer for older people, Mrs. Mary Hallock Foote, was heard from in *The Little Fig Tree Stories*, illustrated by herself. Amanda Minnie Douglas wrote *A Little Girl in Old Philadelphia* and *The Heir of Sherburne*; Wee Lucy's Secret was revealed by Rebecca Sophia Clarke (Sophie May); *The House with Sixty Closets*, by Frank S. Child, was a Christmas story for young folks; Laura Elizabeth Richards wrote *Quicksilver Sue and Peggy*; and Mrs. Mary H. Henry (Howe Benning) *Jean's Opportunity and At Opening Doors*. Will Allen Dromgoole wrote but one story, *Harum-scarum Joe*; from Sarah Orne Jewett came *Betty Leicester's Christmas*; from Mrs. Evelyn Raymond, *A Daughter of the West and My Lady Barefoot*; and from Mrs. Mary Virginia Hawes Terhune (Marion Harland), *When Grandmamma was Young*, the story of a Virginia childhood. Mrs. S. K. Reeves wrote *Gladys Lindsay*; Floy Campbell, *Camp Arcady*; Eleanor Hooper Coryell, *Out of the Past*; Mrs. Herbert Bland (E. Nesbit), *The Story of the Treasure Seekers*; Mrs. Carrie L. Marshall, *Two Wyoming Girls and their Homestead Claims*; and Mrs. Isabella M. Alden (Pansy), *A Modern Sacrifice: The Story of Kissie Gordon's Experiment*. The *Ferry Maid of the Chattahoochee*, by Annie M. Barnes; *Margaret Thorpe's Trial*, by Mrs. Lucy Cecil White Lillie; *Barbara's Heritage*, by Deristhe L. Hoyt; *The Triangle*, by Lena Tomlinson; *We Four Girls*, by Mary Greenleaf Darling; *Beck's Fortune*, by Adèle E. Thompson; *The Story of Betty*, by Carolyn Wells; *The Court of Boyville*, by William Allen White; and *A Young Savage*, by Lyda Farrington Krausé (Barbara Yechton), found interested readers, and from the last author we had *A Cycle of Stories* also. Martha F. Finley (Martha Farquharson) carried on the *Elsie* books with *Elsie in the South*; Mrs. Caroline Leslie Field described *Nannie's Happy Childhood*; *The Two Legacies* came from Georgina Lowell Putnam; *The Golden Talisman* from H. Phelps Whitmarsh; and *Told under the Cherry Trees* from Grace Le Baron (Mrs. Grace Le Baron Upham). Dickey Downy purported to be the autobiography of a bird, by Virginia Sharpe Patterson; *Friends and Helpers* was the title of a compilation by Sarah J. Eddy; Ethelred Breeze Barry contributed *Little Tong's Mission to the Young of Heart Series*; Mrs. S. O'H. Dickson published *The Grangers, and Other Stories and Guessing at Heroes*; and Orville Elder, *Pickey: A Romance*. *Little Folks at Brookside*, by Mrs. D. P. Sanford, contained easy reading for the young. Anna Burnham Bryant prepared the *Sunday Hour*

Series in six volumes, and from Josephine Pollard came several volumes of a religious character, *The Boyhood of Jesus*, *God made the World*, *The Good Samaritan*, *Ruth: A Bible Heroine*, and *The Story of Jesus told in Pictures*. The Century Company issued the *St. Nicholas Christmas Book*; *Outside of Things: A Sky Book*, contained verses for children by Alice Ward Bailey and pictures by Annetta Lyman Paine; the verses by L. Frank Baum on *Father Goose* were illustrated by W. W. Denslow; Katharine Pyle wrote and illustrated *Prose and Verse for Children* in the *Eclectic School Readings Series*; *Songs of the Shining Way* was a book of child verse by Sarah Noble Ives; Arthur M. Lewis contributed "*The Rag Tags*" and their *Adventures*; L. D. Bradley, *Our Indians and Wonderful Willie*, for very little folks; *Gallant Little Patriots*, by Maud and Mabel Humphrey, contained colored plates after paintings in water color; from Florence K. and Bertha Upton we had *The Golliwogg in War*; *Of Such is the Kingdom* was a book of stories and rhymes by Clara Vawter; and *The Listening Child*, a selection from the stores of English verse made for the youngest readers and hearers by Mrs. Lucy W. Thacher, had an introductory note by Thomas Wentworth Higginson. *Boys and Girls of the Philippines and Around the World* were described by Stella W. Carroll and Harriet L. Jerome. On *Wood Cove Island*, by Elbridge Streeter Brooks, described a summer with Longfellow on the New England coast, and from the same indefatigable writer we had a volume of *Historic Americans*.

Medicine and Surgery.—There was a decrease in the number of new books and new editions of books falling under this department. George M. Gould, M.D., edited the *American Yearbook of Medicine and Surgery*; Charles Warrenne Allen, M.D., and Jacob Sobel, M.D., collaborated upon a *Handbook of Medical Progress*; Vols. VI and VII appeared of *A System of Medicine* by Many Writers, edited by Thomas Clifford Allbutt, M.D., covering *Diseases of the Circulatory and Nervous Systems and Diseases of the Nervous System* (continued); George E. Malsbary, M.D., prepared a manual of the *Practice of Medicine* for students and practitioners; *A Text-book of the Practice of Medicine*, by James M. Anders, M.D., went through a third revised edition; and a second edition was also sent out of *An Epitome of the History of Medicine*, by Roswell Park, M.D. *A Pocket Text-book of Materia Medica, Therapeutics, etc.*, was the work of William Schleif, M.D., and Warren Coleman, M.D., compiled *A Syllabus of Materia Medica*. *Practical Materia Medica for Nurses* came from Emily A. M. Stoney. *A Systematic Treatise on Materia Medica, Therapeutics, and Pharmacognosy*, by Finley Ellingwood, M.D., was an important contribution, and from Arthur R. Cushny, M.D., we had a volume of *Pharmacology and Therapeutics*. Frederick J. Smith, M.D., offered an *Introduction to the Outlines of the Principles of Differential Diagnosis*, with clinical memoranda, and *Keynotes and Characteristics*, by H. C. Allen, M.D., were accompanied with comparisons of some of the leading remedies of the *materia medica*. *A Text-book of Anatomy*, by American authors, was edited by Frederick H. Gerrish, M.D.; E. Franklin Smith, M.D., was the author of a *Text-book of Anatomy, Physiology, and Hygiene*; De Burgh Birch, M.D., of *A Class-book of (Elementary) Practical Physiology*; and a sixth edition of the *Essentials of Anatomy*, by Charles B. Nancrede, M.D., revised by Frederick J. Brockway, M.D., appeared in the *Saunders's*

Question Compend. A third edition of Maurice N. Miller, M.D.'s, Student's Histology was revised by Herbert U. Williams, M.D., and John Clement Heisler, M.D., wrote A Text-book of Embryology for Students of Medicine. A Manual of Modern Gastric Methods (chemical, physical, and therapeutical) came from A. Lockhart Gillespie, M.D.; Herman Partsch, M.D., investigated The Ills of Indigestion: Their Causes and their Cures, in three essays; and A. Symons Eccles, Difficult Digestion due to Displacements. A new revised edition was sent out of Intestinal Obstruction: Its Varieties, with their Pathology, Diagnosis, and Treatment, by Frederick Treves, M.D.; Clifford Mitchell, M.D., wrote on Renal Therapeutics; Louis Heitzmann, M.D., on Urinary Analysis and Diagnosis; The Surgical Diseases of the Genito-urinary Tract: Venereal and Sexual Diseases were gone over by Prof. G. Frank Lydston, M.D.; Charles Jewett, M.D., edited The Practice of Obstetrics by American Authors; a second, revised and enlarged, edition was sent out of A Text-book on Practical Obstetrics, by Egbert H. Grandin, M.D., and George W. Jarman, M.D.; and James Compton Burnett, M.D., devoted his attention to The Change of Life in Women and the Ills and Ailings Incident Thereto. George M. Tuttle, M.D., was the author of a Pocket Text-book of Diseases of Children. Hare on Typhoid Fever gave the views of Hobart Amory Hare, M.D., on the medical complications, accidents, and sequelæ of that disease, and a fourth edition was also made of the same author's work on Practical Diagnosis. F. H. Lutz, M.D., supplied the Therapeutics of Facial and Sciatic Neuralgia; Pulmonary Tuberculosis was the theme of the Alverenga prize essay of the College of Physicians of Philadelphia in 1898, revised and enlarged into a volume, by S. A. Knopf, M.D.; and Acromegaly of an essay by Guy Hinsdale, M.D., to which was awarded the Boylston prize of Harvard University for the same year. Interstitial Gingivitis; or, So-called Pyorrhœa Alveolaris, was investigated by Eugene S. Talbot, M.D., and from Arthur P. Luff came Gout: Its Pathology and Treatment. Louis A. Stimson, M.D., was the author of A Treatise on Fractures and Dislocations, Lewis Stephen Pilcher, M.D., wrote on The Treatment of Wounds, and John B. Roberts, M.D., made Notes on the Modern Treatment of Fractures. A Text-book of Diseases of the Nose and Throat was by D. Braden Kyle, M.D.; Seth Scott Bishop, M.D., sent out a second edition, thoroughly revised and enlarged, of his work on Diseases of the Ear, Nose, and Throat, and their Accessory Cavities; and a third revised edition was made of a Treatise on Diseases of the Ear, by Albert H. Buck, M.D. Edward Allen Fay made an inquiry into the results of Marriages of the Deaf in America. Edward Jackson was an authority upon Diseases of the Eye; An American Text-book of Diseases of the Eye, Ear, Nose, and Throat came from George E. de Schweinitz, M.D., and B. Alexander Randall, M.D.; Alexander W. Stirling, M.D., discoursed of Glaucoma: Its Symptoms, Varieties, Pathology, and Treatment; and William Norwood Suter was the author of a Handbook of Optics for Students of Ophthalmology. Dan Bennett St. John Roosa, M.D., went into the principles of the relief of Defective Eyesight by glasses. The Nervous System and its Constituent Neurons were treated of by Lewellys F. Barker, M.D.; H. Campbell Thomson, M.D., prepared An Introduction to Diseases of the Nervous System; Nervous and Mental Diseases were the theme of a volume by Archibald Church, M.D., and Frederick Peterson,

M.D.; Mental Affections: An Introduction to the Study of Insanity came from John Macpherson, M.D.; and Mind and Body, by A. C. Halphide, considered hypnotism and suggestion applied in therapeutics and education. J. Sanderson Christison, M.D., discoursed of Brain in Relation to Mind. Bacteria Especially as they are Related to the Economy of Nature, to Industrial Processes, and to the Public Health was the contribution of George Newman, M.D., to the Science Series; Thomas Bowhill published A Manual of Bacteriological Technique and Special Bacteriology; and A. C. Abbott, M.D., was heard from on The Hygiene of Transmissible Diseases. Harry Campbell, M.D., advised Respiratory Exercises in the Treatment of Disease, notably of the Heart, Lungs, Nervous and Digestive Systems; Thomas Stretch Dowse, M.D., edited The Treatment of Disease by Physical Methods; and Anders Wide provided a Handbook of Medical Gymnastics. A fifth edition of Essentials of Medical Chemistry, Organic and Inorganic, by Lawrence Wolfe, M.D., was thoroughly revised by Smith Ely Jelliffe, M.D., and a fifth revised edition of Saunders's Pocket Formulary was the work of William M. Powell, M.D. Thomas Lindsley Bradford wrote the History of the Homœopathic Medical College of Pennsylvania. Shall we Drink Wine? by John Madden, M.D., was a physician's study of the alcohol question, and from James K. Crook, M.D., we had a review of The Mineral Waters of the United States, and their Therapeutic Uses.

Surgical works included Surgery: A Treatise for Students and Practitioners, by Thomas Pickering Pick, M.D.; Outlines of Practical Surgery, by Walter G. Spencer; Surgical Treatment, the first of six volumes which will contain the entire work, by W. Watson Cheyne and F. F. Burchard, M.D.; a Manual of Surgery, by William Rose and Albert Carless; Lectures upon the Principles of Surgery, delivered at the University of Michigan by Charles B. Nancrede, M.D., with an appendix containing a *résumé* of the principal views held concerning inflammation by William A. Spitzley, M.D.; Railway Surgery, by Clinton B. Herrick, M.D.; Orthopædic Surgery, by J. Jackson Clarke; a Manual of Orthopædic Surgery, by Stewart L. McCurdy; a second edition of The Surgery of the Head and Neck, by Levi Cooper Lane; Electro-hæmostasis in Operative Surgery, by Alexander J. C. Skene, M.D., supplementary to his Treatise on the Diseases of Women; An Experimental Research into Surgical Shock, by George W. Crile, M.D.; a students' one-volume edition of Surgery, by Roswell Park, M.D.; and An American Text-book of Surgery for Practitioners, edited by William W. Keen, M.D., and J. W. White, M.D., in a third revised edition. Anna M. Fullerton, M.D., gave a small volume to Surgical Nursing. Vol. IV of the Index-Catalogue of the Library of the Surgeon General's Office, United States Army, second series, was sent out during the year, covering D-Emulsions.

Poetry.—There were 14 more books of poetry published in 1899 than in the previous prolific year. The poem which aroused most comment, The Man with the Hoe, by Edwin Markham, was given to the public in book form with other poems by the same author. Several well-known names were represented: Louise Chandler Moulton, by a book of sonnets and lyrics, entitled At the Wind's Will; Robert Cameron Rogers, by For the King, and Other Poems; Madison Julius Cawein, by Myth and Romance, a book of verses; Edward Rowland Sill, by Hermione, and Other Poems; Louise Imogen Guiney, by The Martyr's Idyl, and Shorter Poems; Arlo Bates, by Under

the Beech Tree; Bliss Carman, by *A Winter Holiday*; and Richard Hovey, by *Along the Trail*, a book of lyrics. *Sea Drift*: Poems were by Grace Ellery Channing, and *Wild Eden* by George Edward Woodberry. George Cabot Lodge sang *The Song of the Wave*, with which other poems were included; *Songs of American Destiny* came from William Norman Guthrie; *War is Kind*, by Stephen Crane, had drawings by Will Bradley; and *Wartime Echoes of the Spanish-American War* were selected and arranged by James Henry Brownlee. A volume of Poems by Richard Realf were sent out with a memoir of the poet by Richard J. Hinton, and Poems of Nature and Life, by John Witt Randall, were edited by Francis Ellingwood Abbot, with an introduction on the Randall family. Thomas Bailey Aldrich contributed an introductory note to the reprint of William Young's *Wishmaker's Town*; Wallace Rice edited the Poems of Francis Brooks, with a prefatory memoir; and William B. Dyer accompanied Riley Love Lyrics of James Whitcomb Riley with life pictures. Paul Laurence Dunbar published Lyrics of the Hearthside and Poems of Cabin and Field; Little Leather Breeches, and Other Southern Rhymes of Francis P. Wightman were illustrated by the author; and Joel Chandler Harris contributed an introduction to Howard Weeden's *Bandanna Ballads*, with which were included his *Shadows on the Wall*. Uncle Isaac, by William Dudley Powers, was intended as a remembrance of old days in the South; Howard S. England contributed *Shots at Random*; Mrs. Katharine Parkman Coolidge, a daughter of the historian Francis Parkman, *Voices*; Ridley Husted Bell, *Ada Deene*, and Other Poems; and Gertrude Hall, *Age of Fairygold*. Mary McNeil Fenellosa sent a flight of verses *Out of the Nest*; Will T. Hale published *An Autumn Lane*, and Other Poems; Alice Archer Sewall accompanied *An Ode to Girlhood*, with other poems also; and John Myers O'Hara worshipped *At Erato's Fane*. *Beneath Blue Skies and Gray* was the title of poems by Ingram Crockett; *The Dust of Dreams* of others by J. A. Coll; Clara Pearce Boss was the author of *After Life*, and Other Poems; S. M. Herrick, of *Thoughtful Hours*; Sparks and Flames, by Henry Wilson Stratton, had a preface by Ezekiah Butterworth; *A Season's Sowing* was written by Charles Keeler and decorated by Louise Keeler; Richard Burton published *Lyrics of Brotherhood*; Martha Gilbert Dickinson, *Within the Hedge*; W. Wilfred Campbell, *Beyond the Hills of Dream*; and Elva Irene McMillan, *Lyrics of the West*. Herbert Bashford was heard from in *Songs from Puget Sound*; *Hell's Canyon* purported to be a poem of the camps by N. K. Griggs; Coates Kinney entitled "a trilogy and some eclogs" *Mists of Fire*; *Sense and Satire*, based upon nineteenth-century philosophy by William L. Breyfogle, consisted of 700 quatrains, mostly pessimistic in tone, illustrated by John W. Breyfogle; while hopefulness was the keynote of *The Loom of Life*, by William Harper Rider, D.D. Poems of a religious cast included an anonymous *Epic of the Soul*; *Christus Victor*, a student's reverie, by Henry Nehemiah Dodge; *Omega et Alpha*, and Other Poems, by Greville d'Arville; and *The Apistophilon*, subtitled *A Nemesis of Faith*, by Frank D. Bullard, M.D. *Living in the World*, with Other Ballads and Lyrics, came from Frank Putnam. *Songs of the Child World* for the Kindergarten were put together by Mrs. Jessie L. Gaynor, and from John B. Tabb we had *Child Verse: Poems Grave and Gay*. Charles Edmund Merrill compiled *Yale Verse*, and Harvard Lyrics and Other Verses were

selected from the best verse written by Harvard undergraduates within the last ten years. Annie Russell Marble selected and edited *Nature Pictures by American Poets*; *Birds of the Poets* we owe to Lucy F. Sanderson; *For Thee Alone* was the title of a selection of poems on love by Grace Hartshorne; poems on *The Memory of Lincoln* were compiled and accompanied with an introduction by Mark Anthony De Wolfe Howe; *Northland Lyrics* were selected and arranged by William C. and Theodore Roberts, with the assistance of Elizabeth Roberts Macdonald, and accompanied by a prologue by C. G. D. Roberts and an epilogue by Bliss Carman. Lloyd Mifflin, the author of *The Slopes of Helicon* and *At the Gates of Song*, contributed *Echoes of Greek Idyls*, renderings into English of selections from Bion, Moschus, and Bacchylides. R. L. Paget compiled *The Poetry of American Wit and Humor*, and from Charles Battell Loomis we had *Just Rhymes*. The King's Jester, and Other Short Plays for Small Stages were from the pen of Caroline Atherton Dugan, and from George Stanislaus Connell we had *The Old Patroon*, and Other Plays.

Political, Social, and Moral Science.—The abstract questions of government were discussed in a *Review of the Constitution of the United States*, including *Changes by Interpretation and Amendment for lawyers and those not learned in the law*, by W. G. Bullitt; *The Magna Charta and other Great Charters of England*, by Boyd C. Barrington, accompanied with an historical treatise and copious explanatory notes; *Democracy: A Study in Government*, by Prof. James Hervey Hyslop; *The Lessons of Popular Government*, in two volumes, by Gamaliel Bradford; and *The Philosophy of History: An Introduction to the Philosophical Study of Politics*, by Alfred H. Lloyd. *Liberty in the Nineteenth Century* was reviewed from 1776 to 1899 by Frederick May Holland. The literature bearing upon questions of the present day, when we stand, as is claimed, at the parting of the ways politically, was characterized by an intense earnestness and vehemence similar to that called forth by the opposition to the institution of slavery. *Imperial Democracy*, by Prof. David Starr Jordan, was a study of the relation of government by the people, equality before the law, and other tenets of democracy to the demands of a vigorous foreign policy and other demands of imperial dominion. On the other hand, we have *The Romance of Conquest*, the story of American expansion through arms and diplomacy, by William Elliot Griffis, D.D., from whom came also *America in the East*, a glance at our history, prospects, problems, and duties in the Pacific Ocean; C. Waldstein dwelt upon *The Expansion of Western Ideals and the World's Peace*; Murat Halstead wrote *The History of American Expansion and our Four New Possessions*; James C. Fernald exalted *The Imperial Republic*; and Alleyne Ireland volunteered suggestions for *Tropical Colonization*. Edward Bicknell gave a historical review of *The Territorial Acquisitions of the United States*, and Charles A. Gardiner discussed *Our Right to Acquire and Hold Foreign Territory* in an address delivered before the New York State Bar Association, republished in the *Questions of the Day Series*; James M. King pictured us *Facing the Twentieth Century*, and T. Bruce edited *Views of the American Press on the Philippines*. Lewis G. Janes proclaimed *Our Nation's Peril*; *Imperialism and the Tracks of our Fathers* was the title of a paper read before the Lexington (Mass.) Historical Society by Charles Francis Adams,

Tuesday, Dec. 20, 1898; Edwin D. Mead reviewed *The Present Crisis* briefly; *The Spanish War: A Prophecy or an Exception* was the subject of an address by the Hon. David J. Brewer, Associate Justice of the Supreme Court of the United States; and two addresses of Hon. Carl Schurz on *American Imperialism* and *The Policy of Imperialism* are to be recorded. England in 1776: America in 1899 was from the pen of William J. Salter, and *The Conquest of the United States* by Spain was the subject of an address to the Yale students by Prof. William G. Sumner. *Imperialism and Anti-Imperialism* was the text of several published addresses by Hon. George S. Boutwell, and the *Anti-imperialist Series* of Edward Atkinson is not to be omitted, having been brought into special prominence by the order of the Post Office Department removing them from the mails going to Manila. Ex-Senator John B. Henderson printed a Speech delivered before the Pike County Colony of St. Louis at its annual dinner on Feb. 25, 1899, in reply to the toast *Our Nation, State, and County*, and *An Open Letter*, in which the situation of the country was reviewed. Prof. William James denounced briefly but emphatically *The Philippine Piracy*, and Hon. George Frisbie Hoar set forth *Our Duty to the Philippines*. Private Smith at the Philippines came from Marion Leonidas, and *Oriental America* presented a chronological array of facts connected with the war. Closely allied to our own difficulties were those of Briton and Boer during the year, and both sides of the South African question were presented in a collection of articles by James Brooks Bryce, Sydney Brooks, F. V. Engelenburg, and others, while from Howard C. Hillegas we had *Oom Paul's People*, also a review of British-Boer troubles in South Africa. *The Federation of the World* was advocated by Benjamin F. Trueblood, doubtless in consequence of the congress at The Hague looking to that eventual end of disagreements among nations. *Cuba and International Relations* were gone into extensively by James Morton Callahan, and Charles M. Pepper prophesied of To-morrow in Cuba. *The Making of Hawaii* was a study in social evolution by William Fremont Blackman, and Edmund Janes Carpenter was heard from on America in Hawaiian Islands. *Centralized Administration of Liquor Laws in the American Commonwealths*, by Clement Moore Lacey Sites, appeared in the *Columbia University Studies*, and *Economic Aspects of the Liquor Problem*, by John Koren, was the result of an investigation made for the Committee of Fifty under the direction of Henry W. Farnam. *Thirty Years of New York Politics up to Date* were reviewed by Matthew P. Breen, Henry Wallace wrote briefly of *Trusts*, and how to Deal with Them, and F. Hammesfahr dealt with *The Corn Trade and Options*. *The Shellback*, by Alexander J. Boyd, edited by Archie Campbell, had an introduction by Morgan Robertson, and was a terrible arraignment of American ships. *Elementary Principles of Economics* were set forth by Charles H. Chase, and from Charles W. Macfarlane we had *Value, Price, and Distribution*, an historical, critical, and constructive study in economic theory adapted for advanced and post-graduate work. A third, revised and enlarged, edition was sent out of *Monopolies and the People*, by Charles Whiting Baker; Allen Ripley Foote examined *Municipal Public-service Industries*; and Edward Webster Bemis edited a collection of papers by American economists and specialists on *Municipal Monopolies* in the *Library of Economics and Politics*. Adna Ferrin Weber contributed *The Growth of*

Cities in the Nineteenth Century, a study in statistics, to the *Columbia University Studies*, and Part II appeared of Prof. Edmund Janes James's work on *The Charters of the City of Chicago*, covering *The City Charters, 1838-1851*. *The True Basis of Economics* was gone into in a correspondence between Prof. David Starr Jordan and J. H. Stallard on the merits of the doctrine of Henry George, *The Economic Policy of Colbert* was reviewed by A. J. Sargent in the series of *Studies in Economics and Political Science*, and *Discussions in Economics and Statistics* of the late Gen. Francis Amasa Walker were edited by Davis R. Dewey. *The Elements of Public Finance*, by Winthrop More Daniels, included the monetary system of the United States; David K. Watson wrote a *History of American Coinage*; and Alfred Cookman Bryan a *History of State Banking in Maryland*, the last appearing in the *Johns Hopkins University Studies*. *Financial New York*, by William Ten Eyck Hardenbrook, was carried on by the issue of Sections 3 and 4. *A Dividend to Labor*, by Nicholas Paine Gilman, was a study of employers' welfare institutions; Charles H. Cooley treated of *Personal Competition*, with regard to its place in the social order and effect upon individuals; F. W. Lawrence went into *Local Variations in Wages*; and William Maxwell Burke into the *History and Functions of Central Labor Unions*. *Pauperizing the Rich* was an inquiry into the value and significance of unearned wealth to its owners and to society by Alfred J. Ferris. *Railway Economics* were the theme of H. T. Newcomb, and *Congressional Grants of Land in Aid of Railways* were the subject of a thesis submitted for the degree of doctor of philosophy, University of Wisconsin, by John Bell Sanborn. *The Cost of Living as Modified by Sanitary Science* was considered by Mrs. Ellen Henrietta Richards; *Social Settlements*, by C. R. Henderson, was one of the *Handbooks for Practical Workers in Church and Philanthropy*; and from Josiah Flynt (Frank Willard) we had a collection of studies and sketches of vagabond life, entitled *Tramping with Tramps*. Rev. C. H. Vail set forth the *Principles of Scientific Socialism*; Hon. Carroll Davidson Wright presented an *Outline of Practical Sociology*, with *Special Reference to American Conditions*; *The Races of Europe* were the theme of an exhaustive sociological study by Prof. William Z. Ripley, which as the *Lowell Institute Lectures* filled two volumes; and a *History of the Zoar Society* from its Commencement to its Conclusion, by E. O. Randall, was intended as a sociological study in communism. Booker T. Washington wrote ably and comprehensively of *The Future of the American Negro*, and Samuel Creed Cross published a lecture upon *The Negro and the Sunny South*. Madison C. Peters made a plea for Justice to the Jew, telling the story of what he had done for the world; Maurice Fluegel also wrote of Israel, the Biblical People; and Cyrus Adler edited *The American Jewish Yearbook*, 5660, September 5, 1899, to September 23, 1900. *Heralds of the Morning*, by Asa Oscar Tait, considered the meaning of the social and political problems of to-day and the significance of the great phenomena in Nature, and *The End of the Ages*, by William Fishbough, was accompanied with forecasts of the approaching political, social, and religious construction of America and the world. *Uncle Sam's Bible*, according to James B. Converse, contained Bible teachings about politics. L. O. Curow pronounced Chicago, *Satan's Sanctum*. *Parliamentary Lessons* based on Reed's Rules, by Mrs. Mary Urquhart Lee, was offered as a hand-

book of common parliamentary law. Helen Marot compiled *A Handbook of Labor Literature*, giving a classified and annotated list of the more important books and pamphlets in the English language, and Part I appeared of *State Publications*, a provisional list of the several States of the United States from their organization, compiled under the editorial direction of R. R. Bowker. The New England States were covered by this first issue. The *Handbook of the American Economical Association* was sent out as usual with the report of the eleventh annual meeting at New Haven, Conn., Dec. 27-29, 1898, and No. 2 of the new series of its publications was devoted to a collection of critical essays on The Federal Census by members of the association, made and edited by a special committee. The annual address of the president of the association, A. T. Hadley, on *The Relation between Economics and Politics*, was also printed and given to the public. The *Foreign Policy of the United States*, Political and Commercial, was the subject of the addresses and discussion at the annual meeting of the American Academy of Political and Social Science, April 7 and 8, 1899, collected into a volume, and publications sent out by the academy during the year included *Wealth and Welfare*, by H. H. Powers; *Sociology and Economics*, by Prof. Lester F. Ward; *Outlines of Sociology*, by Louis Gumplowicz; *Economic Aspects of British Agriculture*, by John F. Crowell; *Political and Municipal Legislation in 1898*, by Edward Dana Durand; *Recent Production of Silver and its Probable Future and Relative Stability of Gold and Silver*, by Edward Sherwood Meade; *The Final Report of the Monetary Commission*, by Frederick A. Cleveland; *Securities as a Means of Payment*, by Charles A. Conant; *The Philadelphia Nominating System*, by Walter J. Branson; *Taxation of Quasi-public Corporations in the State of Ohio and the Franchise Tax*, by Frederick J. Howe; *The Growth of Great Cities in Area and Population*, by Edmund James James; *The Function of the Social Settlement*, by Jane Addams; *The Economic Aspects of Charity Organization*, by C. E. Prevey; *The Regulation and Nationalization of the Swiss Railways*, by Hans Dietler; and *The Constitutional Position of the German Emperor*, by Philip Zorn. The *Trend of the Century* was discussed by Seth Low in the *What is Worth While Series*.

Theology.—The book of the year falling under this classification which aroused most comment was undoubtedly *A General Introduction to the Study of the Holy Scripture*, by Dr. Charles A. Briggs. Dr. Robert Verrell Foster sent out a volume of *Systematic Theology*, and *The Foundations of the Christian Faith*, by Charles W. Rishell, appeared in the Library of Biblical and Theological Literature. The *Theology of the New Testament* was contributed by George Barker Stevens, D.D., to the *International Theological Library*; *The Revelation of Jesus*, by George Holley Gilbert, was a study of the primary sources of Christianity; and from Rev. E. W. Cook we had *The Origin of Sin and its Relations to the Universe*. The *Gospel of a World of Sin*, by Dr. Henry Jackson Van Dyke, Jr., was intended as a companion volume to his *Gospel of an Age of Doubt*; *The Kingdom (Basileia)* was an exegetical study by George Dana Boardman, D.D.; Robert Cameron considered *The First Epistle of John*; or, *God revealed in Life, Light, and Love*; *The Doctrine of Saint John* was the title of an essay in biblical theology by Walter Lowrie; *The Bible: Is it the Word of God?* was the theme of the Bennett Lectures for 1898, delivered by

James Reed, Jacob E. Warren, John C. Ager, and others; *Can I believe in God the Father?* of lectures delivered at the Summer School of Theology of Harvard University by William Newton Clarke, D.D., who also delivered the *Levering Lectures* before the Johns Hopkins University in 1899 upon *What shall we think of Christianity?* The *Lowell Institute Lectures* were by Dr. Alexander McKenzie, on *The Divine Force in the Life of the World*. *Through Nature to God*, by John Fiske, was in line with his previous books, *The Idea of God and The Destiny of Man*. Bishop J. C. Keener was the author of *Studies of Bible Truths*; *The Institutional Church*, by Edward Judson, intended as a primer in pastoral theology, had an introductory word by Bishop Potter; John Duncan Quackenbos contributed thoughts on questions of the hour under the title of *Enemies and Evidences of Christianity*; *The Four Gospels from a Lawyer's Standpoint* came from Judge Edmund Henry Bennett; and *The Apostles' Creed in the Light of Modern Discussion* from Henry A. Stimson, D.D. *Miracles: Were they or were they not Performed by Jesus?* was declared a question of fact, not of science or theology, by Thomas J. Dodd, D.D.; *Washington Gladden asked How much is Left of the Old Doctrines?* William Henry Green, D.D., was the author of a *General Introduction to the Old Testament: The Text; A History of the Textual Criticism of the New Testament* was added by Marvin Richardson Vincent, D.D., to the *Series of New Testament Handbooks*; and a new series of *International Handbooks to the New Testament*, edited by Orello Cone, D.D., was initiated with *The Epistles of Paul the Apostle to the Thessalonians, Corinthians, Galatians, Romans, and Philippians*, by James Drummond. A new translation, direct from the Greek text, of *The Four Gospels*, by Rev. Francis Aloysius Spencer, had a preface by Cardinal Gibbons. *The Religion of Israel to the Exile* was the addition of Karl Budde, D.D., to the series of *American Lectures on the History of Religions*; *A Critical and Exegetical Commentary on the Book of Proverbs*, by Prof. Crawford Howell Toy, belonged to the *International Critical Commentary Series*, another issue of which was *A Critical and Exegetical Commentary on the Books of Samuel*, by Henry Preserved Smith. *The Messages of the Later Prophets*, by Frank Knight Sanders and Charles Foster Kent, appeared in the *Messages of the Bible Series*, and a second edition was made of their previous work on *The Messages of the Earlier Prophets*. *Songs from the Psalter* was the title of poetical renderings by Richard Arnold Greene. *Solomon and Solomonic Literature* were the theme of Moncure D. Conway; *Richard Green Moulton's Literary Study of the Bible* was revised and partly rewritten by him in its new edition; *Jonah in Fact and Fancy*, by James Edgar Banks, had an introduction by Rev. Lyman Abbott, D.D.; *Stories from the Old Testament for Children* came from Harriet S. B. Beale; and *A Life of St. Paul for the Young* from George Ludington Weed. Charles Fletcher Dole examined *The Theology of Civilization*; *With God in the World* was the title of a series of papers by Rev. Charles H. Brent; *The Son of Man*, by Gross Alexander, consisted of studies in his life and teachings; and from Charles Caverno, D.D., came *The Ten Words*, a study, of course, of the Commandments. *The Life that Really Is* was the title of a volume of sermons by Dr. Lyman Abbott, *The Battles of Peace* came from George Hodges, and *External Religion: Its Use and Abuse*, from George Tyrrell. Hamilton Wright Mabie dis-

coursed of *The Life of the Spirit*; sermons of Timothy Dwight were entitled *Thoughts of and for the Inner Life*; *Individuality*; or, *The Apostolic Twelve before and after Pentecost*, came from J. L. Sooy, D.D.; *God and the People*, and *Other Sermons*, from David James Burrell, D.D.; *The Master Idea*, from Raymond L. Bridgman; *Heaven*; or, *That Better Country*, from Bishop Jonathan Weaver; and *Life beyond Death*, from Minot Judson Savage, D.D. *The Heavenly City* was edited by Dr. Edwin Wilbur Rice. In his *Steps: What would Jesus do?* by Rev. Charles M. Sheldon, attained a wide popularity, more than 3,000,000 copies having been sold. William Reed Huntington, D.D., published *Four Key Words of Religion* contained in as many brief addresses; *God's Education of Man* was reviewed by William De Witt Hyde; *Between Cæsar and Jesus* was the title of lectures by George D. Herron; and *John and his Friends* of a series of revival sermons by Louis Albert Banks, D.D., from whom we had also *My Young Man*, a series of addresses to young men, as well as volumes devoted respectively to *The Great Sinners of the Bible*, *Anecdotes and Morals*, and *A Year's Prayer-meeting Talks*. *The Religion of To-morrow* was foretold by Frank Crane; *The Pure Causeway* was recommended by Evelyn Harvey Roberts; *Christian Perfection* was contributed by Peter Taylor Forsyth, D.D., to the series of *Little Books on Religion*, another issue of which was *The Art of Living Alone*, by Amory Howe Bradford; *John Monroe Dana* collected and edited *The Wider View*, a search for truth; *Border Lines in the Field of Doubtful Practices* were explored by Henry Clay Trumbull; Rev. James Tait denounced Christianity without Conscience; and from Rev. James J. Fox we had the nature and mutual relations of Religion and Morality historically and doctrinally considered. Cortland Myers gave reasons *Why Men do not go to Church*. *Ecce Clerus*; or, *The Christian Minister in Many Lights*, claimed to be by an anonymous student of the times. Bishop Henry Yates Satterlee wrote upon *New Testament Churchmanship and the Principles upon which it was Founded*; Papias and his Contemporaries was a study of religious thought in the second century by Rev. Edward Henry Hale; *A Manual of Patrology* was contributed by Wallace Nelson Stearns; and Vol. III of *A General History of the Christian Era* (for Catholic colleges and reading circles), by Augustus Guggenberger, completed that work, and was devoted to *The Social Revolution*. *The Fundamental Ideas of the Roman Catholic Church* were explained and discussed for Protestants and Catholics by Frank Hugh Foster; *Leading Persons and Periods in English Church History* came to us anonymously; Arthur Kenyon Rogers discussed *Men and Movements in the English Church*; a *Supplementary History of American Methodism* was offered as a continuation of his abridged *History of Methodism* by Abel Stevens; *An Exposition of the Form of Government and the Rules of Discipline of the Presbyterian Church in the United States* was made by Rev. F. P. Ramsay; Calvinism was the theme of the L. P. Stone Lectures for 1898-'99 by Abraham Kuyper, D.D.; a *History of the Swedish Baptists in Sweden and America* was written by Gustavus W. Schroeder; and *The History of the General Conference of the Mennonites of North America*, by H. P. Krehbiel. J. M. Hanson, D.D., proclaimed Universalism the prevailing doctrine of the Christian Church during the first five hundred Years, *Baptist History Vindicated* came from John T. Christian, D.D., and *A History of New*

England Theology from George Nye Boardman. The sketch of *The Garrison Church of Baltimore County, Maryland*, by Ethan Allen, D.D., and *Our Church and our Village*, by George W. F. Birch, D.D. (Claysville, Pa.), may be mentioned together. Vol. II was issued of *Christian Missions and Social Progress*, by James S. Dennis, D.D.; *The Christian Conquest of Asia* was the title of the Morse Lectures of 1898, delivered by John H. Barrows, D.D.; *Questions and Phases of Modern Missions* were set forth by Frank Fields Ellinwood; and *The Miracles of Missions* were commemorated by Arthur Tappan Pierson. *The Foreign Missionary and his Work*, by W. G. E. Cunyngham, had an introduction by W. R. Lambuth. *The Transformation of Hawaii*, by Belle M. Brain, told how American missionaries gave a Christian nation to the world. *Lights and Shadows of Mission Work in the Far East* came from S. H. Chester, D.D., and *Islam in Africa* had its effects—religious, ethical, and social—upon the people of the country explained by Anson P. Atterbury. *The Dragon, Image, and Demon*, by Rev. Hampden C. Du Bose, gave an account of the three religions of China—Confucianism, Buddhism, and Taoism. *Yesterday Framed in To-day* was a story of the Christ and how to-day received him by Mrs. Isabella M. Alden; and from Mrs. Ellen G. Harmon White we had a life of Christ handsomely printed and illustrated, entitled *The Desire of Ages*. Howard W. Tilton published *Lay Sermons*; Amos R. Wells, *Sermons in Stones and in Other Things*; George T. Lemmon, *The Eternal Building*; or, *The Making of Man*; Rev. H. T. Davis discoursed of *Perfect Happiness*; and Rev. A. W. Snyder of *The Chief Things and The Chief Days*. Rev. Thomas E. Green published addresses for Good Friday under the title *The Hill called Calvary*, Edward A. Larrabee compiled *Prayers at Mass*, etc., and J. B. Hogan, D.D., arranged *Daily Thoughts for Priests*. *The Holy Family* was the subject of a Christmas meditation by Amory Howe Bradford. *A History of the Jewish People during the Babylonian, Persian, and Greek Periods* was written by Charles Foster Kent for the *Historical Series for Bible Students*; Addison Pinneo Foster was responsible for *A Manual of Sunday-school Methods*; Jesse Lyman Hurlbut and Robert Remington Doherty collaborated upon the *Illustrative Notes on the International Sunday-school Lessons for 1900*; and *Select Notes on the same* by Rev. Francis N. and Mary A. Peloubet completed the twenty-sixth annual issue of the publication. *The Best Church Hymns* were edited with an introduction and notes by Louis F. Benson, D.D.; William E. Ketcham compiled and edited *Funeral Sermons and Outline Addresses as an aid to pastors*; *Christian Science* was examined by Rev. Reginald Heber Newton; and again by Rev. William Short, Bishop Hugh Miller Thompson contributing an introduction to this collection of addresses. Buddhism and its Christian Critics came from Paul Carus, and a second edition was made of his three lectures on *The Ethical Problem*.

Unclassified.—Books not falling properly under any of the classifications of this article included *The United States Army and Navy*, by A. L. Wagner and J. D. Jerrold Kelley, which traced the history of both from the era of the Revolution to the close of the Spanish-American War; *Our Navy in Time of War, 1861-1898*, by Franklin Matthews; *Tactical Organization and Uses of Machine Guns in the Field*, by John H. Parker; *Customs of the Service*, compiled from authentic sources by James W. Powell; a *Text-*

book of Practical Solid Geometry for the use of military students, by E. H. de V. Atkinson; and The Resistance and Propulsion of Ships, by W. F. Durand. Vol. VII appeared of The Mineral Industry, giving its statistics, technology, and trade in the United States and other countries to the end of 1898, edited by Richard P. Rothwell; J. H. Fisk was the author of an Assayers' and Miners' Text-book; E. B. Wilson went into Hydraulic and Placer Mining; Francis L. Bosqui made Practical Notes on the Cyanide Process; and a fifth, rewritten and enlarged, edition was sent out of The Metallurgy of Lead and the Desilverization of Base Bullion, by H. O. Hofman. Part I of Advanced Metal Work, by Alfred G. Compton and James H. De Grodt was devoted to The Speed Lathe; Note Taking, Dimensioning, and Lettering, by Frederick Newton Willson, formed Part I of his Descriptive Geometry and Mechanical Drawing Series; Part III of his Theoretical and Practical Graphics was issued, covering Some Mathematical Curves, and Part V, devoted to Shades, Shadows, and Linear Perspective, and he also sent out a volume on Practical Engineering, Drawing, and Third-angle Projection. Austin T. Byrne wrote on Inspection of the Materials and Workmanship employed in Construction; Gardner D. Hiscox, on Mechanical Movements, Powers, Devices, and Appliances used in Constructive and Operative Machinery and the Mechanical Arts; J. K. Freitag handled The Fireproofing of Steel Buildings; and H. M. Leaf, The Internal Wiring of Buildings. Chimney Design and Theory was a book for engineers and architects by William Wallace Christie; D. B. Butler gave directions for the manufacture, testing, and use of Portland Cement; Warren R. Briggs was the author of a treatise upon Modern American School Buildings, accompanied with designs; and Oliver Coleman planned the interior decoration of Successful Houses. Estate Fences: Their Choice, Construction, and Cost came from A. Vernon. Frederick T. Hodgson supplied the Practical Stonecutter and Mason's Assistant, as well as directions for Estimating Frame and Brick Houses. Heat and Heat Engines were the theme of Frederick Remson Hutton; Walter B. Snow wrote on Steam-boiler Practice in its Relation to Fuels and their Combustion; J. Pennycook proved himself The Engineer's Friend; Robert H. Blackall drew up the Air-brake Catechism; and William Frank Pettigrew prepared A Manual of Locomotive Engineering. Railway Curves and Earthwork was intended as a pocket book for civil engineers by C. Frank Allen; William Henry Cole was heard from on Light Railways at Home and Abroad; Part II of Machine Design, by Forrest R. Jones, was given to Form, Strength, and Proportions of Parts; Standard Wiring for Electric Light and Power came from H. C. Cushing, Jr.; and P. Marshall was responsible for Small Accumulators: How Made and how Used. William Fox and Charles W. Thomas were the joint authors of A Practical Course in Mechanical Drawing. Sanitary Engineering was the subject of an exhaustive practical treatise by E. C. S. Moore, and Mansfield Merriman was also heard from on Elements of Sanitary Engineering, as well as Elements of Precise Surveying and Geodesy. The Microscopy of Drinking Water was gone into by George Chandler Whipple; William P. Mason wrote on Examination of Water (Chemical and Bacteriological); Potable Water and Methods of Detecting Impurities, by M. N. Baker, belonged to Van Nostrand's Science Series; while Sewage Analysis was the theme of J. Alfred Wanklyn and William J. Cooper. Frederick Hutton Getman

supplied Elements of Blowpipe Analysis, and Frederick H. Hitchcock was the author of the Book-builders' Handbook of Types, Scales, Bulks, Equivalents, etc. Howard Patterson was an authority on Yacht Etiquette, and Yachting Wrinkles were vouchsafed by A. J. Kenealy. Davis Dalton edited How to Swim; The Book of Golf and Golfers came from Horace G. Hutchinson, Amy B. Pascoe, H. H. Hilton, and others; and E. Freeborough edited Select Chess and Games. Principles of Agriculture were edited by Liberty Hyde Bailey as a text-book for schools and rural societies; Frederick Leroy Sargent described Corn Plants: Their Uses and Ways of Life; Herbert Myrick prepared a manual of American Sugar Industry; The Modern Farmer in his Business Relations, by Edward F. Adams, supplied a want. Lucius D. Davis gave his attention to Ornamental Shrubs for Garden, Lawn, and Park Planting; Samuel T. Maynard wrote on Landscape Gardening as applied to Home Decoration; Landscape Gardening, by F. A. Waugh, was a brief treatise on the general principles governing outdoor art; F. Wilkinson told The Story of the Cotton Plant; and James F. Meegan supplied The Cotton Buyers' Ready Reckoner, Cotton Pickers and Cotton Seed Table. The occupations of women and their compensation were reviewed in What Women can Earn, by Grace H. Dodge, Thomas Hunter, Mary J. Lincoln, and others. W. B. Hutchinson and J. A. E. Creswell discussed Patents and how to Make Money out of Them, Francis E. Leupp gave directions How to Prepare for a Civil-service Examination, and Friendly Visiting among the Poor was a handbook for charity workers by Mary E. Richmond. John J. Daly gave attention to Window Dressing. Modern Photography in Theory and Practice was a handbook for the amateur by Henry G. Abbott. Crude Rubber and Compounding Ingredients, by Henry C. Pearson, and Nida's Compendium of Information for the Liquor Interests, by William Nida, met special demands. Gillette's Cook Book contained the experience of forty years of practical housekeeping of Mrs. F. L. Gillette; Janet Mackenzie Hill suggested Salads, Sandwiches, and Chafing-dish Dainties; Mrs. Olive A. Cotton, Chafing-dish Recipes for soups, sauces, oysters, clams, meats, fish, *menus*, etc.; Kate R. Sargeant recorded One Hundred Mushroom Receipts; and Mrs. Sarah Tyson Rorer told how to transfer Leftovers into palatable and wholesome dishes. Henrietta Latham Dwight was the author of The Golden Age Cook-book; Gesine Lemcke, of Preserving and Pickling; Mrs. Anna L. Colcord proclaimed herself A Friend of the Kitchen; and The Hostess of To-day, by Linda Hull Larned, was illustrated by Mary Cowles Clarke. Mrs. C. E. Humphry (Madge) told How to be Pretty though Plain. Hervey J. Seaman conveyed practical information for The Expert Cleaner. In The Art of Memory Henry H. Fuller outlined a comprehensive and practical system of memory culture; Descriptive Mentality from the Head, Face, and Hand came from Holmes Whittier Merton, and contained 600 original drawings; as Yarmo Vedra he was also responsible for Heliocentric Astrology; or, Essentials of Astronomy and Solar Mentality, with tables of ephemeris to 1910. The Gospel of the Stars, as revealed by James Hingston as Gabriel, had an introduction by George H. Hepworth, D. D. Methods and Problems of Spiritual Healing came from Horatio Willis Dresser. George J. Becker was the author of Ornamental Penmanship: Analytical and Finished Alphabets and Draughtsman's Letter Book. Mr. Dooley in the Hearts of his Countrymen, by Martin Dooley (Finley P.

Dunne), followed Mr. Dooley in Peace and in War of last year; George S. Hilton also saw The Funny Side of Politics; He, She, and They, by Albert Lee, contained a faithful record of the woeful enjoyments and joyful woes of him and her; Elizabeth Strong Worthington told How to Cook Husbands; Lizzie P. Evans Hansell was responsible for Aunt Nabby: Her Rambles, her Adventures, and her Notions; as was Edwin Emerson, Jr., for Peppys's Ghost and his wanderings in Greater Gotham; Oliver Herford for An Alphabet of Celebrities; and Ralph Bergengren for In Case of Need, These may Come Handy, a book of pictorial and versified admonition. The Publishers' Trade List Annual, 1899, completed its twenty-seventh year of issue, and, in conclusion, we had Appletons' Annual Cyclopædia, 1898.

Voyages and Travels.—There was an increase of 50 new books in this department over those of 1898, arising in great part from the interest excited by the Spanish war. The Newborn Cuba, by Franklin Matthews; Industrial Cuba, by Hon. Robert P. Porter; Cuba: Its Past, Present, and Future, by Arthur D. Hall; The Little I saw of Cuba, by Burr W. McIntosh; The Puerto Rico of To-day, by Albert Gardner Robinson; Puerto Rico and its Resources, by Frederick Albion Ober; Puerto Rico: Its Conditions and its Possibilities, by William Dinwiddie, illustrated from photographs by himself; Porto Rico and the West Indies, by Margherita Arlina Hamm; and The Cruise of the Scythian in the West Indies, by Susan De Forest Day, met all conceivable requirements for information concerning these islands, which were again referred to, however, in Our Island Empire, by Charles Morris, claiming to be a handbook of Cuba, Puerto Rico, Hawaii, and the Philippine Islands. Everything about our New Possessions was vouchsafed in a similar though smaller book by Thomas J. Vivian and Ruel P. Smith. The Philippine Islands, by Ramon Reyes Lala, had a novel interest in that the author, while a native of Manila, is a citizen of the United States. The Philippines, (also) Hawaii was the second contribution of Arthur D. Hall to the literature of the year; Hawaiian America came from Caspar Whitney; Hawaii and its People: The Land of the Rainbow and Palm, from Alexander Stevenson Twombly; The Real Hawaii, from Lieut. Lucien Young, a revised and enlarged edition of The Boston at Hawaii; and Hawaii Nei, from Mabel Clare Craft. The New Pacific was the subject of a volume by Hubert Howe Bancroft; Alaska and the Klondike, by Angelo Heilprin, recorded a journey to the new Eldorado, with hints to the traveler and observations on the physical history and geology of the gold regions; Frederick Palmer's In the Klondike included an account of a winter's journey to Dawson; De B. Randolph Keim contributed Our Alaskan Wonderland and Klondike Neighborhood to the American Destiny Series; Robert C. Kirk described Twelve Months in Klondike; and Two Women in the Klondike was the story of a journey to the gold fields of Alaska by Mary E. Hitchcock (Mrs. Roswell D. Hitchcock). A second, revised and enlarged, edition was sent out of Miner W. Bruce's Alaska, presenting its history and resources, gold fields, routes, and scenery. Crossing the water, we find Mary H. Krout A Looker-on in London; Charles M. Taylor, Jr., saw The British Isles through an Opera Glass; Howard Crosby Butler's work on Scotland's Ruined Abbeys was illustrated by himself; as were Clifton Johnson's wanderings Among English Hedgerows, to which Hamilton Wright Mabe contributed an introduction. The American in Holland was Dr.

William Elliot Griffis, who recorded sentimental rambles in the eleven provinces of the Netherlands; Mrs. Grace Carew Sheldon went From Pluckemin to Paris by the way of Touraine, the Midi, Provence, the Rhone, and eastern France; Bohemian Paris of To-day was written by W. C. Morrow from notes by Edward Cucuel, and illustrated by that artist; Benjamin E. and Charlotte M. Martin devoted two volumes to The Stones of Paris, in History and Letters; Plains and Uplands of Old France was a book of verse and prose by Henry Copley Greene; Mrs. Elizabeth W. Champney recalled the Romance of the Feudal Chateaux; Impressions of Spain were compiled from James Russell Lowell by Joseph B. Gilder, and had an introduction by A. A. Ade; Cities and Sights of Spain, by E. Main, was a handbook for tourists, illustrated from photographs by the author; and a new issue was made of With a Peasimist in Spain, by Mary F. Nixon. From Plotzk (Poland) to Boston, by a young immigrant, Mary Antin, had a foreword by Israel Zangwill. Charles Dana Gibson's Sketches in Egypt with pen and pencil found numerous admirers; Present-day Egypt was the theme of Frederick Courtland Penfield, for four years United States consul at Cairo; William Bement Lent saw The Holy Land from Landau, Saddle, and Palanquin; Quaint Corners of Ancient Empires, according to Michael Meyers Shoemaker, are to be found in southern India, Burma, and Manila; John L. Stoddard in Sunny Lands of the Eastern Continent made a pictorial journey through the tropical countries contained therein; In Ghostly Japan came from Lafcadio Hearn; and John W. Bookwalter illustrated his account of a journey through Siberia and Central Asia from photographs taken by himself. Of special interest at the present time was William Harvey Brown's account of his adventures and observations On the South African Frontier, first as a naturalist sent out by the United States National Museum, and later as a settler in Rhodesia. A Green Mariner, by Howard Ireland, gave a landsman's account of a deep-sea voyage, and from Paul Belloni du Chailly came a book for young people, The Land of the Long Night. A Thousand Days in the Arctic, by Frederick G. Jackson, related the adventures of the Jackson-Harmsworth expedition sent out in 1894 to ascertain the importance of Franz Joseph Land as a

CLASSES.	1898.		1899.	
	New books.	New editions.	New books.	New editions.
Fiction	794	181	749	188
Law	417	30	454	35
Juvenile	356	17	454	14
Education and language	364	18	397	32
Theology and religion	408	40	393	97
Literary history and miscellany	318	19	304	44
Poetry	368	15	302	31
Biography, memoirs	172	28	298	22
History	244	38	246	32
Political and social science	243	14	236	12
Fine arts and illustrated books	144	19	194	30
Description, travel	134	33		
Physical and mathematical science	148	31	190	28
Medical science, hygiene	143	45	130	33
Useful arts	106	6	99	24
Mental and moral philosophy	45	6	63	10
Domestic and rural	40	8	55	8
Sports and amusements	52	10	43	5
Humor and satire	18	2	26	1
Totals	4,392	554	4,749	572
		4,932		4,749
		4,986		5,321

way to the pole. Returning to our own country, we have *Fifty-two Years in Florida*, by John C. Ley; *Colorado in Color and Song*, from various hands; *Nooks and Corners of Old New York*, by Charles Hemstreet, illustrated by Edward C. Peixotto; *New York's Chinatown*, by Louis J. Beck; *Old Cambridge*, by Thomas Wentworth Higginson; *Historical Mansions and Highways around Boston*, by Samuel Adams Drake, a new and revised edition of *Old Landmarks and Historic Fields of Middlesex*; *History Towns of the Middle States*, edited by Lyman P. Powell, in the series of *American Historical Towns*; and *Famous Parks and Public Buildings of America*, by John L. Stoddard.

The table on page 436 gives the statistics of book production during the year, compared with those of 1898, from the columns of the *Publishers' Weekly*.

LITERATURE, BRITISH, IN 1899. Notwithstanding the outbreak of war during the year, the production of books in England during 1899 showed a slight increase over those of 1898, the figures standing respectively 7,567 and 7,516. The decrease from 1897, it will be remembered, was 410 last year. Of the total number of volumes issued from the press, 5,971 were new books and 1,596 new editions, as compared with 6,008 new books in 1898 and 1,508 new editions. As these last are held a better indication of the value of trade than new works, satisfaction was expressed by the publishing world, especially as the largest increase was shown in new editions of novels, which reached 92, while 67 new books of fiction were also recorded. There was an increase of 102 in essays and monographs, 44 in the department of art and science, 32 in books of travel, and 23 in poetry. In political and kindred books there was a falling off of 70 from last year, and 177 from 1897. Books of history and biography were less numerous, while theological, educational, and serial works showed nearly the same numbers as last year. Of miscellaneous works there were 200 less. The honors of the year remained with biography, in which several volumes of importance are to be noted.

Biography.—In an embarrassment of riches it is difficult to choose, but *The Letters of Robert Browning and Elizabeth Barrett Barrett, 1845-6*, in two volumes, given to the public with questionable taste by the writers' son, were welcomed most eagerly by the literary world and enjoyed, albeit with a sense of guilt and stealthiness. *The Letters of Robert Louis Stevenson to his Family and Friends* were edited with notes and an introduction by Sidney Colvin, and filled two volumes also, as did *The Life and Letters of Sir John Everett Millais, President of the Royal Academy*, by his son, John Guille Millais. A. Lys Baldry also wrote on Sir John Everett Millais: *His Art and Influence*. *The Life of William Morris*, by J. W. Mackail, in two volumes, was superbly illustrated, and one of the most important books of the year. *Ruskin, Rossetti, Pre-Raphaelitism: Papers, 1864 to 1862*, arranged and edited by William Michael Rossetti, were full of the most delicious gossip and detail of that remarkable fraternity; *Pre-Raphaelite Diaries and Letters* were also edited by him; and in this connection may be mentioned *Pictures and Poems of Dante Gabriel Rossetti*, with an introduction by Fitz Roy Carrington. *Letters of Benjamin Jowett* were edited by Evelyn Abbott and Lewis Campbell, and *The Autobiography and Letters of Mrs. M. O. W. Oliphant* were arranged and edited by Mrs. Harry Coghill. *Fragments of an Autobiography*, by Felix Stone Moscheles, were full of artistic

and literary interest; from Max Müller came a second series of *Auld Langsyne*, devoted to *My Indian Friends*; and two volumes contained *Notes from a Diary kept chiefly in Southern India, 1881-86*, by Sir Mountstuart E. Grant Duff. Two volumes of *Recollections, 1832 to 1886*, came from Sir Algernon West, and Sir Edward Russell reviewed the same events and personages from the point of view of a newspaper editor in *That Reminds Me*. *Memories of C. Kegan Paul* contained the confessions of a publisher; *Reminiscences of Justin McCarthy* filled two volumes; and three contained *A Sailor's Life under Four Sovereigns*, by Admiral Sir Henry Keppel. *Sketches from Memory*, by George Adolphus Storey, was a characteristically pleasant volume of anecdotes, as was *Memories of Half a Century*, by Rev. R. W. Hiley. *The Life of William Ewart Gladstone*, edited by Sir Wemyss Reid, with contributions by F. W. Hirst, Canon MacColl, Rev. W. Tuckwell, G. W. E. Russell, and others, was completed and issued in book form; Vols. II and III of *Sir Robert Peel: From his Private Papers*, edited by Charles Stuart Parker, completed that valuable work; Hubert Hervey: *Student and Imperialist*, was the title of a memoir by Earl Grey of the late administrator of Rhodesia; and from James Milne came *The Romance of a Great Pro-consul*, Sir George Grey. *John Hookham Frere and his Friends*, by Gabrielle Festing, contained much interesting information of the times of that "brilliant trifler"; Francis Turner Palgrave: *His Journals and Memories of his Life* were edited by his daughter, Gwennlian F. Palgrave; and *Letters of Walter Savage Landor, Private and Public*, came to us edited by Stephen Wheeler. *Letters of Thomas Carlyle to his Youngest Sister* were edited with an introductory essay by Charles Townsend Copeland. To Arthur H. Beavan we were indebted for *James and Horace Smith, Joint Authors of Rejected Addresses*, a family narrative based upon hitherto unpublished diaries, letters, and other documents; Vols. II and III were sent out of the new edition of *Byron's works*, containing his *Letters and Journals*, edited by Rowland E. Prothero; *Lamb and Hazlitt* was the latest batch of *Eliana* by W. Carew Hazlitt; *Unpublished Letters of Dean Swift* were edited by George Birbeck Hill, who contributed an introduction to one of the two volumes of *Eighteenth Century Letters* edited by R. Brimley Johnson, sent out during the year, devoted to Johnson—Lord Chesterfield. That covering Swift—Addison—Steele had an introduction by Stanley Lane-Poole. Two volumes contained *The Life, Writings, and Correspondence of George Borrow, 1803-1881*, by William J. Knapp, accompanied with a portrait and illustrations; *Hood in Scotland* was the title of reminiscences collected and arranged by Alexander Elliot in this the centenary year of the poet; John A. Doyle edited a *Memoir of Susan Ferrier*; and from Walter Herries Pollock we had an essay in criticism of Jane Austen: *Her Contemporaries and Herself*. *The Life and Letters of John Donne, Deane of St. Paul's, 1573-1631*, by Edmund Gosse, was reckoned one of the important contributions of the year. Ellis Yarnall contributed *Wordsworth and the Coleridges*; a *Life of William Makepeace Thackeray*, in two volumes, was written by Lewis Melville; and the *Biographical Edition of Thackeray's works* was completed with the issue of the four remaining volumes, the biographical introductions being by his daughter, Mrs. Anne Ritchie. Stephen Gwynn contributed *Tennyson: A Critical Study*, to the Victorian Era Series, and from George Edward Bateman

Saintsbury we had a similar study of Matthew Arnold. Rudyard Kipling: *An Attempt at Appreciation*, came from G. F. Monkshood (W. J. Clarke), and Aubrey Beardsley was commemorated by Arthur Symons. The tenth and concluding volume of the new edition of *The Diary of Samuel Pepys*, by Henry B. Wheatley, was devoted to *Pepysiana*. Oliver Cromwell and his Times, by Godfrey Holden Pike; Cromwell as a Soldier, by Lieut.-Col. T. S. Baldock, in the *Wolseley Military Series*; Oliver Cromwell, by Samuel Rawson Gardiner, superbly illustrated; and *The Two Protectors*, Oliver and Richard Cromwell, by Sir Richard Tangye, owed their existence doubtless to the fact that the tercentenary of the birth of Cromwell occurred during the year; and from Eva Scott we had *Rupert, Prince Palatine*, illustrated from contemporary portraits and engravings. *The Life and Campaigns of Alexander Leslie, First Earl of Leven*, by Charles Sanford Terry, portrayed that Goliath of the Covenant, and *A Life of Richard Badiley, Vice Admiral of the Fleet*, was welcomed from Thomas Alfred Spalding, recalling a forgotten hero. From Cromwell to Wellington: *Twelve Soldiers*, was edited by Spenser Wilkinson, with portraits and plans, and had an introduction by Lord Roberts, and *From Howard to Nelson: Twelve Sailors*, by John Knox Laughton. Louis Becke and Walter Jeffery collaborated upon a volume devoted to *The Naval Pioneers of Australia* and also upon *Admiral Phillip: The Founding of New South Wales, in the Builders of Greater Britain Series*; another issue of which was *Lord Clive: The Foundation of British Rule in India*, by Sir Alexander John Arbuthnot. Sir John Cope and the Rebellion of 1745 were handled by the late Gen. Sir Robert Cadell, and Walter Evelyn Manners gave *Some Account of the Military, Political, and Social Life of the Right Hon. John Manners, Marquis of Granby*. *The Life of Wellington*, by Sir Herbert Maxwell, in two volumes, recorded the restoration of the martial power of Great Britain. *Nelson's Friendships*, by the late Mrs. Hilda Gamlin, author of *Emma Lady Hamilton and Romney and his Art*, filled two volumes and contained 60 illustrations. *A British Rifleman* was the title given the journals and correspondence of Major George Simmons, Rifle Brigade, during the Peninsular War and the campaign of Waterloo, edited with an introduction by Willoughby Verner, and *A Boy in the Peninsular War* recorded the services, adventures, and experiences of Robert Blakeney, edited by Julian Sturgis. To military biography belong also *Lumsden of the Guards*, a sketch of the life of Lieut.-Gen. Sir Harry Burnett Lumsden by his brother, Sir Peter S. Lumsden, and *George R. Elsmie*; *The Life of Sir George Pomeroy-Colley, 1835-'81*, including services in Kaffraria, in China, in Ashanti, in India, and in Natal, by Lieut.-Gen. Sir William F. Butler; and *The Shervintons, Soldiers of Fortune: Shervinton of Madagascar, Shervinton of Salvador, and Tom Shervinton, N.N.C.*, by their sister, Kathleen Shervinton. *A Life of Admiral Sir William Robert Mends, Late Director of Transports*, was written by his son, Bowen Stilon Mends. *A Prisoner of the Khaleefa*, by Charles Neufeld, describes his twelve years' captivity at Omdurman, with the terrible sufferings endured, while he was the subject of misrepresentation and slander in England. *The Life of Charles Sturt, Sometime Capt. 39th Foot and Australian Explorer*, was written by Mrs. Napier George Sturt. *The Log of a Sea Waif* was the title of Frank T. Bullen's recollections of the first four years of his sea life. A memoir of Wil-

liam F. Moulton, Late Head Master of the Leys School, Cambridge, came from W. Fiddian Moulton. Additions to the *Famous Scots Series* included Adam Smith, by Hector C. Macpherson; James Hogg, by Sir G. Douglas, which included notices of the poets Tannahill, Motherwell, and Thorn; James Frederick Ferrier, by E. S. Haldane; Andrew Melville, by William Morison; and King Robert the Bruce, by A. F. Murison. The *Foreign Statesmen Series* received two additions—Cavour, by Countess Evelyn Martinengo Cesaresco, and Cosimo de' Medici, by K. Dorothea Ewart—and the *Masters of Medicine* were re-enforced with Claude Bernard, by Sir Michael Foster, M.D.; Hermann Ludwig Ferdinand von Helmholtz, by John Gray McKendrick; and *Disciples of Æsculapius*, by the late Sir Benjamin Ward Richardson. Michael Faraday: *His Life and Work*, was the contribution of Silvanus P. Thompson to the *Century Science Series*. *Memoirs and Correspondence of Lyon Playfair, First Lord Playfair of St. Andrew's*, was an important scientific biography, for which we are indebted to Sir Wemyss Reid; the *Life and Letters of Sir Joseph Prestwich* were written and edited by his wife; and *The Life Story of Sir Charles Tullston Bright, Civil Engineer*, was told in two volumes by Edward B. and Charles Bright, brother and son of the great pioneer in Atlantic cable laying. William Harvey was the subject of an admirable biography by D'Arcy Power, and *George Harley: The Life of a London Physician*, was edited by his daughter, Mrs. Alec Tweedie. Yet another loving tribute was Dr. Southwood Smith: *A Retrospect*, by his granddaughter, Mrs. C. L. Lewes, which records his labors in the interest of sanitary legislation for the poor. *A History of the Charities of William Jones at Monmouth and Newland*, by William Meyer Warlow, belongs to an earlier period. *James Hack Tuke* was compiled by Sir Edward Fry. Vol. IV of *The Memoirs of the Verney Family*, compiled from the letters and illustrated by the portraits of Claydon House, reached us from Margaret M. Verney, and covered the period *From the Restoration to the Revolution, 1660-1696*. Entertaining *Passages from the Diaries of Mrs. Philip Lybbe Powys, 1756-1808*, were edited by Emily J. Climen-son, and Mrs. Ambrose Rathborne performed a similar service for *Letters from Lady Jane Coke to her Friend Mrs. Eyre at Derby, 1747-1758*; *The Early Married Life of Maria Josepha, Lady Stanley*, edited by Jane H. Adeane, one of her grandchildren, proved no less welcome than *The Girlhood of Maria Josepha Holroyd*; and from A. M. Crawley-Boevey we had *The "Perverse Widow"; or, Memorials of the Boevey Family*, the "widow" in question being the one who refused Sir Roger de Coverley. Lady Louisa Stuart: *Selections from her Manuscripts*, edited by James Home, recalled a striking personality and an interesting period. From Percy Fitzgerald we had *The Good Queen Charlotte and Florizel's Folly*, which last gave glimpses of the life of the Prince Regent at Brighton and his connection with Mrs. Fitzherbert; *Famous Ladies of the English Court* were chronicled by Mrs. Aubrey Richardson; Thibaw's Queen was the subject of a handsomely illustrated volume by H. Fielding; *The Story of the Princess des Ursins in Spain (Camarera-Mayor)* came from Constance Hill; and Mary J. Hill commemorated Margaret of Denmark. *The Life of Madame De Longueville (Anne Genevieve de Bourbon)* was written by Mrs. Alfred Cock, Danton was the subject of a study by Hilaire Belloc, and from A. H. Beesly we had *A Life of Danton*. Twelve Notable Good

Women of the Nineteenth Century were eulogized by Rosa Nouchette Carey. The Romance of Ludwig II of Bavaria was the theme of Frances A. Gerard. The Tragedy of Dreyfus was ably handled by the late brilliant George W. Steevens, and Trooper 3809, by Lionel Deale, has special interest as tending to throw light on the methods pursued in that famous or rather infamous case. With Zola in England told the story of his exile, and was from the pen of Ernest A. Vizetelly. Haunts and Hobbies of an Indian Official, by Mark Thornhill, supplemented his previous Adventures of a Magistrate in the Indian Mutiny, and Sir Spenser St. John portrayed Rajah Brooke: The Englishman as Ruler of an Eastern State, in the series of Rulers of India, another issue of which was Babar, by Stanley Lane-Poole. Things I have seen in War were described by Irving Montagu, the war correspondent. To James Stillman we were indebted for a biography of Francesco Crispi, and James Headlam contributed Bismarck to the Heroes of the Nations Series. In religious biography we had The Life of Edward White Benson, sometime Bishop of Canterbury, by his son, Arthur Christopher Benson, in two volumes; Henry George Liddell, D.D.: A Memoir, by Rev. Henry L. Thompson; A Preacher's Life, at once an autobiography and an album, by Dr. Joseph Parker; Vols. II and III of The Autobiography of Charles H. Spurgeon, compiled from his diary, letters, and records by his wife and private secretary, covering the periods respectively 1854-'60 and 1861-'78; Robert Grosseteste, Bishop of Lincoln, a contribution to the religious, political, and intellectual history of the thirteenth century, by Francis Seymour Stevenson; a Life of Bishop Latimer, by Rev. A. J. Carlyle, in the series of English Religious Leaders; Lives of the Elizabethan Bishops, by Rev. F. O. White; Fra Girolamo Savonarola, a biographical study based on contemporary documents, by Herbert Lucas, S. J.; Charles Kingsley and the Christian Social Movement, by Rev. Charles W. Stubbs, Dean of Ely, in the Victorian Era Series; George Müller of Bristol and his Witness to a Prayer-hearing God, by Arthur Tappan Pierson; Bishop John Selwyn: A Memoir, by Frederick Douglas How, the author of Bishop Walsham How; and The Autobiography and Diary of Samuel Davidson, D.D., edited by his daughter. The Life and Remains of the Rev. R. H. Quick were edited by F. Storr. Eden *versus* Whistler, the Baronet and the Butterfly, styled in subtitle A Valentine with a Verdict, was the unique contribution of James McNeil Whistler. Sir Arthur Sullivan had his life story, letters, and reminiscences given to the public by Arthur Lawrence. Frederick J. Crowest contributed a Life of Beethoven to the Master Musician Series. Vols. LVII to LX of the Dictionary of National Biography, edited by Sidney Lee, brought the work to Watson-Whewell.

Essays.—There was a considerable increase in the number of new books falling under this department. From Mrs. Alice Meynell we had The Spirit of Place, and Other Essays, which preserved the high tone and delicacy of her previous volumes; A Paladin of Philanthropy and other papers were by Austin Dobson, in which he gives us more eighteenth-century vignettes; Essays in Modernity, by the late Francis Adams; Essays, by Wray Hunt; Appreciations and Addresses, delivered by Lord Rosebery and edited by Charles Geake; The Etchingham Letters, by Sir Frederick Pollock and Mrs. Charlotte Fuller-Maitland; On Books and Art, by Frederick Wedmore; Study and Stage, by William Archer; More, from Max

Beerbohm; Genius Loci, by Vernon Lee; the Johnson Club Papers, by various hands; The Backwater of Life; or, Essays of a Literary Veteran, by the late James Payn; The Decay of Sensibility, and Other Essays and Sketches, by Stephen Gwynn; The Human Interest, a study in incompatibility, by Violet Hunt; and The Art of Thinking, an earnest plea by T. Sharper Knowlson, found interested readers, while from William Edward Hartpole Lecky came The Map of Life: Conduct and Character. A History of Japanese Literature was written by William G. Aston for the Literatures of the World Series, another issue of which was A History of Bohemian Literature, by Count Francis Litzow; A Literary History of Ireland, from earliest times to the present day, was added by Douglas Hyde to the Library of Literary History; and Literary Ideals in Ireland were studied by John Eglinton, W. B. Yeats, and W. Larminie. Scottish Vernacular Literature was the theme of T. F. Henderson, while The Social Life of Scotland in the Eighteenth Century, by Henry Grey Graham, filled two volumes. Thomas Newbigging defended The Scottish Jacobites. Three volumes contained the new edition of A History of English Dramatic Literature to the Death of Queen Anne, by Adolphus William Ward; The Augustan Ages, by Oliver Elton, and The Fourteenth Century, by F. J. Snell, belonged to the Periods of European Literature Series; Prof. F. Max Müller reviewed The Six Systems of Indian Philosophy; and from A. W. Benn we had The Philosophy of Greece considered in Relation to the Character and History of its People. Lewis Campbell contributed a sketch in outline of Religion in Greek Literature, and from Andrew Lang we had a new prose translation of The Homeric Hymns, with essays, literary and mythological. Roman Festivals of the Period of the Republic, by William Warde Fowler, was intended as an introduction to the study of the religion of the Romans. Rev. S. Law Wilson considered The Theology of Modern Literature. Essays on Robert Browning came from Marion Little; Tennyson, Ruskin, Mill, and Other Literary Estimates from Frederic Harrison; and a second series of Studies in Dante from E. Moore. Rev. H. S. Bowden investigated The Religion of Shakespeare, Roscoe Addison Small found interest in The Stage Quarrel between Ben Jonson and the So-called Poetasters, and David Irvine expounded Parsifal and Wagner's Christianity. The Solitary Summer came from the pen of the author of Elizabeth and her German Garden, and More Potpourri from a Surrey Garden was welcomed from Mrs. C. W. Earle. Wild Life in Hampshire Highlands was the theme of G. A. B. Dewar, and Life and Nature at the English Lakes of Rev. H. D. Rawnsley. Richard Garnett supplied Essays in Librarianship and Bibliography, The Romance of Book Collecting fascinated John Herbert Slater, and John Lawler made a study of Book Auctions in England in the Seventeenth Century. R. H. Forster proved himself The Amateur Antiquary. Famous Homes of Great Britain and their Stories, edited by A. H. Malan, were handsomely illustrated; Vol. II of Records of Lincoln's Inn: Black Books, appeared, privately printed, covering the period 1588-1660; Sarah Wilson dwelt upon The Romance of our Ancient Churches; The Municipal Parks, Gardens, and Open Spaces of London had their history and associations revived by J. J. Sexby; and from A. E. Daniell we had London City Churches and London Riverside Churches. Part I of the second volume of a Dictionary of British Folklore, covering the traditional games of England, Scotland,

and Ireland, by Alice Bertha Gomme, was issued; Richard Blakeborough wrote of the Wit, Character, Folklore, and Customs of the North Riding of Yorkshire, incorporating a glossary of over 4,000 words and idioms now in use; and *Aradia*; or, *The Gospel of the Witches*, came from Charles Godfrey Leland (Hans Breitmann). A Summary Catalogue of Western Manuscripts in the Bodleian Library at Oxford, by Falconer Madan, reached Vol. IV; F. G. Kenyon wrote on *The Palæography of Greek Papyri*; and Facsimiles of the Papyri of Hunefer, Anhai, etc., by E. A. Wallis Budge, reproductions of four of the finest examples of the Book of the Dead, formed, with his previous edition of *The Papyrus of Ani* in 1895, a series extending from 1500 B.C. to one of the last centuries before our era. Our National Education was the theme of Hon. E. Lyulph Stanley, Richard Claverhouse Jebb delivered the Romanes Lecture for 1899 upon Humanism in Education, and H. T. Mark discussed Educational Theories in England. Little Folks of Many Lands were described, chiefly from personal observation, by Mrs. Louise Jordan Miln, author of *When we were Strolling Players in the East*. Vols. IV and V were sent out of *A New English Dictionary on Historical Principles*, edited by Dr. J. A. H. Murray and H. Bradley, bringing the work down to H-Hod.

Fiction.—The number of novels, tales, and juvenile works sent from the British press during the year reached a total of 1,825 new books and 736 new editions. While few masterpieces were recorded, yet novel writing was declared to be in a tolerably healthy and vigorous condition. Several books achieved a high degree of popularity, notably *A Double Thread*, by Ellen Thornycroft Fowler, who last year scored such a success with *Concerning Isabel Carnaby*. It appeared toward the opening of the year, and was followed by No. 5, John Street, the work of Richard Whiteing, which made a decided *furor*. Later he sent out also *The Island*; or, *The Adventures of a Person of Quality*. Notwithstanding the South African agitation, *Red Pottage*, by Mary Cholmondeley, sold at the rate of a hundred copies or so a day. She had previously been known as the author of *Sir Charles Danvers*, *The Danvers Jewels*, and *Diana Tempest*. On *Trial*, by Zack (Gwendoline Kears), was regarded by some as the finest novel of the year; it consisted of a collection of sketches of Devonshire life, which was again portrayed in *Children of the Mist*, by Eden Phillpotts, and *Postle Farm*, by George Ford. *Sir Walter Besant* published but one book, *The Orange Girl*; *Young April*, by Egerton Castle, was warmly welcomed; *The Colossus of Morley Roberts* was presumed to be the Hon. Cecil Rhodes, and he also wrote *A Son of Empire*. From Edward F. Benson we had *Mammon & Co.* and *The Capsina*, the last a sequel to *The Vintage*; Bernard Capes was heard from in *Our Lady of Darkness* and *At a Winter's Fire*; Neil Munro published *Gillian the Dreamer*; John Buchan, *A Lost Lady of Old Years* and *Grey Weather Moorland Tales of my Own People*; Hugh S. Scott (Henry Seton Merriman) located his Prisoners and Captives amid the horrors of Siberia; Beatrice Harraden failed to reach the level of Ships that Pass in the Night with *The Fowler*; Grant Allen apologized for what he termed *A Splendid Sin*, and also narrated *Miss Cayley's Adventures*; Benjamin Swift (W. R. Paterson) did excellent work in *Siren City*, and also published *Dartnell*; Maurice Hewlett entertained with *Little Novels of Italy*; Alfred Edward Woodley Mason, with *Miranda of the Balcony*

and *The Watchers*, while in collaboration with Andrew Lang he wrote also *Parson Kelly*, an historical novel; Halliwell Sutcliffe, the author of *A Man of the Moors*, offered *Ricroft of Withens*; Hilda: *A Tale of Calcutta and The Path of a Star* came from Mrs. Sara Jeannette Duncan Cotes; and *The Taming of the Jungle* from C. W. Doyle. Richard Le Gallienne wrote *The Worshiper of the Image* and *Young Lives*; Mrs. Emily Sharp Cameron (Mrs. H. Lovett Cameron), *A Man's Undoing*, *A Fair Fraud*, and *A Difficult Matter*; *Love among the Lions*, by F. Anstey (F. Anstey Guthrie), chronicled a matrimonial experience; John Oxenham in *Rising Fortunes* gave the story of a man's beginnings; while *A Princess of Vascovy* belonged to the realm of the imagination wholly, as did *The King's Mirror*, by Anthony Hope; *The Princess Xenia*, by H. B. Marriott Watson; *A Dash for a Throne*, by Arthur W. Marchmont; and *A Modern Mercenary*, by Mrs. K. and Hesketh Pritchard. *The Passing of Prince Rozan* was a romance of the sea by John Bickerdyke, from S. R. Keightley came *Heronford*, and from Mrs. Katharine S. Macquoid *A Ward of the King*. O. V. Caine published *In the Year of Waterloo*; Allen Raine, the author of *Mifanwy and Torn Sails*, by Berwin Banks; Arthur Conan Doyle sent out but one book, *A Duet*, with an *Occasional Chorus*; Mary L. Pender described *Michael Rolf*, Englishman; *Dead Oppressors* was a strong story by Thomas Pinkerton, who also published *Sun Beetles: A Comedy of Nickname Land*; while Tom Gallon wrote *The Idol of the Blind*. William Clark Russell chronicled *A Voyage at Anchor* and told a tale of two tunnels in *Captain Jackman*. To London Town showed us Arthur Morrison in an optimistic mood. In *Chimney Corners* was the title of merry tales of Irish folklore told by Seumas MacManus, who contributed more of the love, lore, and laughter of old Ireland seen *Through the Turf Smoke*. *The Talking Thrush*, and *Other Tales from India*, were collected by W. Crooke and retold by W. H. D. Rouse. They that Walk in Darkness contained more ghetto stories by Israel Zangwill, Mrs. Wilfrid Ward recorded the fate of *One Poor Scruple*, and *The Passion of Rosamund Keith* was portrayed by Martin J. Pritchard (Mrs. Augustus Moore). *The Strange Story of Hester Wynne* as told by herself came to us through George Colmore (Mrs. Georgina Dunn), and Anne Mauleverer was the heroine of Mrs. Kathleen Caffyn (*Iota*). *The Custom of the Country* was the title of tales of new Japan by Mrs. Hugh Fraser, who also glorified *The Splendid Porsenna*. Samuel Rutherford Crockett wrote the stirring story of *Black Douglas*, as well as the simpler adventures of *Kit Kennedy*, *Country Boy*, and he also found an American heroine in *Ione March*. *The Heiress of the Season* was by Sir William Magnay, Bart.; *My Lady Frivol*, by Rosa Nouchette Carey; *The Two Standards*, by William Barry; Mrs. Bertha M. Croker gave a sketch of *The Real Lady Hilda* and a story of *Infatuation*; *Cromwell's Own* was a story of the great civil war by Arthur Paterson; *Defender of the Faith*, by Frank Mathew, contained three portraits after Holbein; *The Favor of Princes*, by Mark Lee Luther, belonged to the days of Louis XV; and *A Fight for the Green and Gold*; or, *Gerald Desmond*, was a romantic dream of Irish liberty by John J. Hagarty. Like another Helen, by Sydney C. Grier, recalled the days of the Indian Mutiny and the Black Hole of Calcutta. *Crown of Life* came from George Robert Gissing; *Well, After All*, from Frankfort Moore, the author of *The Jessamy Bride*; Giles Ingilby, from W. E. Norris;

Rachel, from Jane Helen Findlater; Pabo, the Priest, from S. Baring-Gould; The Dominion of Dreams, from Fiona Macleod; A Rogue's Conscience, from David Christopher Murray; Hagar of the Pawn Shop, from Fergus W. Hume; Daughters of Babylon, from Wilson Barrett and Robert S. Hichens, working in collaboration; and The Slave, from the last-named author on his own account. Dracula was by Bram Stoker; Love made Manifest and Dr. Nikola's Experiment, by Guy Boothby; and Ernest W. Hornung sent out The Amateur Cracksmen and Dead Men tell no Tales. The Individualist suggests W. H. Mallock. J. Maclaren Cobban was responsible for Pursued by the Law and The Angel of the Covenant, as W. Pett Ridge was for A Son of the State and Walter Raymond for Two Men o' Mendip and No Soul above Money. Swallow, a Tale of the Great Trek, was the latest from H. Rider Haggard; Mrs. Annie French Hector, as Mrs. Alexander, made us acquainted with Brown, V. C., and The Step-Mother of a most exalted type; while John Strange Winter (Mrs. H. E. V. Stannard) gave us A Name to Conjure With and Heart and Sword, and Rhoda Broughton, The Game and the Candle. A Girl of Grit, by Arthur Griffiths, was a story of the intelligence department, and The Hooligan Nights were spent by Clarence Rook with a young criminal. Mrs. Florence Alice Price James (Florence Warden) sent out no less than three books, The House in the Hills, Joan the Curate, and Love that Lasts; George Bernard Shaw selected Cashel Byron's Profession; Rob and Kit came from the author of Miss Toosey's Mission; and from Charlotte M. Yonge we had The Herd Boy and his Hermit. Stalky & Co., by Rudyard Kipling, gave rise to much comment and criticism, inasmuch as the pictures it presents of English military school life and character open deeper problems. Another book of more human interest was The Human Boy, by Eden Phillpotts, and from Q we had a study of boyhood, entitled The Ship of Stars. A new Haworth Edition of the Life and Works of the Sisters Brontë was begun during the year, the introductions to the works being written by Mrs. Humphry Ward, and the introduction and notes to Mrs. Gaskell's Life of Charlotte Brontë by Clement K. Shorter. Gerald Fitzgerald, by Charles Lever, was published in book form for the first time during the year, having been rescued from an old magazine. Austin Dobson contributed an introduction to an edition of Charles Reade's Peg Woffington, illustrated by Hugh Thomson.

Fine Arts.—Two superb volumes contained Architecture of the Renaissance in England, illustrated by a series of views and details from buildings erected between the years 1500-1635, with historical and critical text, by J. Alfred Gough and W. Talbot Brown. Another magnificent work was Dante Gabriel Rossetti: An Illustrated Memorial of his Life and Art, by H. C. Marillier; The English Pre-Raphaelite Painters, their associations and successors, were the subject of Percy H. Bate, as British Contemporary Artists were of Cosmo Monkhouse; A. Whitman commemorated The Masters of Mezzotint; and J. J. Foster, British Miniature Painters and their Works. D. Croal Thomson edited Fifty Years of Art, 1849-1899; Pictures in the National Gallery, London, with descriptive and critical notes by C. L. Eastlake, was completed, and with its original design for the cover by Walter Crane and its elegant typography was said to be unsurpassed among works of the sort published in England. A History of French Art, 1100-1899,

was written by Rose Kingsley, and French Painters of the XVIII Century were the theme of Lady Dilke. Ashton Rollins Willard was the author of a History of Modern Italian Art; Andrea del Sarto, by H. Guinness, and Bernardino Luini, by George C. Williamson, were added to the series of Great Masters in Painting and Sculpture; Representative Painters of the Nineteenth Century came from Mrs. Nancy M. Bell (N. D'Anvers); Max Rooses edited Dutch Painters of the Nineteenth Century; and Parts III and IV were sent out of Masterpieces of Dutch Art in English Collections. No. IV also appeared of The Annual of the British School at Athens, covering the session 1897-98. A. C. R. Carter compiled The Year's Art, 1899. John Ruskin's Lectures on Landscape delivered at Oxford in Lent Term, 1871, were made into a handsome and copiously illustrated volume. The Cathedral Builders, by Leader Scott, told the story of a great guild. Greek Sculpture with Song and Story, by Albinia Wherry, was intended to interest young people, and from Clara Erskine Clement Waters we had a volume on Saints in Art in the Art Lovers' Series. Examples of Greek and Pompeian Decorative Work were measured and drawn by James Cromer Watt, H. Wallis illustrated his own work on Persian Luster Vases, and from Marcus B. Hush came the first adequate account for English readers of the Greek Terra-cotta Statuettes discovered at Tanagra twenty-five years ago. Worcester China, by R. W. Binns, the author of A Century of Potting in the City of Worcester, was an illustrated record of the work he has directed for nearly half a century. George Macdonald sent out the first volume of a Catalogue of Greek Coins in the Hunterian Collection, University of Glasgow, and a volume of the British Museum Catalogue of Greek Coins, by Warwick Wroth, covered Galatia, Cappadocia, Syria. Antiquities from the City of Benin and from Other Parts of West Africa in the British Museum came from Charles H. Read and Ormonde M. Dalton. Modern Book Plates and their Designers were the subject of a volume by the late Gleeson White, and English Embroidered Bindings, by Cyril Davenport, was the first of a series of monographs on English books. Richard Glazier drew up A Manual of Historic Ornament for the use of students and craftsmen, and Montague Marks compiled and edited The Cyclopædia of Home Arts; Blackboard Drawing, by W. E. Sparkes, contained hints on sketching natural forms; and a facsimile was made of Beautiful and Quaint Designs in Leaden Glass, printed in 1615. Practical Hints for the Protection and Preservation of Paintings and Drawings were offered by Sir P. Burne-Jones. Among handsome gift volumes may be mentioned Pen and Pencil Sketches of Shipping and Craft all Round the World, by R. T. Pritchett, marine painter to the Royal Thames Yacht Club, with more than 50 full-page illustrations from sketches; Sights and Scenes in Oxford City and University, by Thomas Whittaker, which had an introduction by George Saintsbury; two volumes of The Queen's Empire; Royal Academy Pictures, 1899; The Temple, London, a collection of 12 etchings by P. Thomas, with descriptive letterpress by the master of the temple, Canon Ainger; Twelve Portraits, by William Nicholson; Dickens and his Illustrators, by F. G. Kitton; The Early Work of Aubrey Beardsley, with a prefatory note by H. C. Marillier; Beatrice d'Este, Duchess of Milan, by Julia Cartwright; Sandro Botticelli, by H. P. Horne; and Rembrandt, by Malcolm Bell. Lithography and Lithographers, by Joseph and Elizabeth Robins Pennell, was an exhaustive

work. Music was the subject of several volumes. The Musician's Pilgrimage, by J. A. Fuller-Maitland, was a study in artistic development; J. F. Runciman gave discussions on musical subjects under the title of Old Scores and New Readings; The Perfect Wagnerite, by George Bernard Shaw, was intended as a commentary on the Ring of the Nibelungs; Ernest Newman made A Study of Wagner, and also wrote of Gluck and the Opera; True Principles of the Art of Violin Playing were set forth by George Lehmann; and H. C. Lahee gave us a volume of Famous Violinists of To-day and Yesterday. Chats to 'Cello Students were vouchsafed by Arthur Broadley, and Canon H. C. Shuttleworth defined The Place of Music in Public Worship. Hermann Smith explained The Art of Tuning the Pianoforte, and A. C. R. Carter edited The Year's Music, 1899. The Drama of Yesterday and To-day was reviewed by Clement W. Scott, and from Charles Hiatt we had a record and review of Sir Henry Irving, with 74 illustrations, and Ellen Terry and her Impersonations. The Actor and his Art, by Stanley Jones, presented some considerations of the present condition of the stage.

History.—The event of the year in this department was Sir George Otto Trevelyan's history of The American Revolution, Part I of which appeared, covering the period 1766-76. In it he virtually continued his Early History of Charles James Fox, sent out eighteen years ago, but the chief value of the work lies in the application which is patent to the foreign policy of our own country at the present time. Vol. II was at last issued of Edward John Payne's History of the New World called America, devoted to Aboriginal America, and The History of Trade between the United Kingdom and the United States, by Sydney J. Chapman, had special reference to the effect of tariffs. Vols. III and IV appeared of The Royal Navy, a history from the earliest times to the present, edited by W. Laird Clowes, as did Vol. I of Logs of the Great Sea Fights, 1794-1805, edited by Rear-Admiral T. Sturges Jackson, and J. W. Fortescue wrote A History of the British Army in two volumes. How England saved Europe, the story of the great war, 1793-1815, by W. H. Fitchett, which will fill four volumes, was begun with the issue of the first, covering From the Low Countries to Egypt. George Townsend was responsible for Landmarks in English Industrial History. England in the Age of Wycliffe was a valuable study by George Macaulay Trevelyan, to which The Peasants' Rising and the Lollards, a collection of unpublished documents edited by Edgar Powell and Mr. Trevelyan, formed an appendix. Piers Gaveston, by Walter Phelps Dodge, was a chapter of early constitutional history. Historical Sketches of Notable Persons and Events in the Reigns of James I and Charles I, by Thomas Carlyle, were edited by Alexander Carlyle, and proved full of dramatic imagination and picturesqueness; England in the Nineteenth Century came from Charles W. C. Oman; and from Justin McCarthy we had the Story of the People of England in the Nineteenth Century, in two parts, the first covering Modern England before the Reform Bill, and the second Modern England under Queen Victoria. Great Britain and Hanover: Some Aspects of the Personal Union, were the theme of the Ford Lectures at Oxford, by A. W. Ward. Prehistoric Scotland and its Place in European Civilization, by Robert Munro, was intended as a general introduction to the County Histories of Scotland, and Scotland and the Protectorate, by C. H. Firth, was a continuation of Scotland and the Com-

monwealth. In the Cambridge Historical Series we had also Vol. I of A History of Scotland, by P. Hume Brown, covering To the Accession of Mary Stewart. No. 1 of the British Empire Series contained India, Ceylon, Straits Settlement, British North Borneo, Hong-Kong, by various hands, and No. 2 was similarly devoted to British Africa. The Story of the West Indies was contributed to the Story of the Empire Series by Arnold Kennedy. Vol. I was issued of A History of British India, by Sir William Wilson Hunter, as was Vol. III of Letters received by the East India Company from its Servants in the East, edited by William Foster, covering the year 1615. The Rise of Portuguese Power in India was traced by R. S. Whiteway. Lady Betty Balfour compiled The History of Lord Lytton's Indian Administration, 1876 to 1880, from letters and official papers; Col. H. B. Hanna reviewed the causes, conduct, and consequences of The Second Afghan War, 1878-'79-'80; and Col. Algernon Durand described The Making of a Frontier under his direction in the wild countries in and about the Kara Koram and Hindu Kush mountains. The Heart of Asia, a history of Russian Turkestan and the central Asian khanates from the earliest times, was the important contribution of F. H. Skrine and E. D. Ross. The River War, by Winston Spencer Churchill, gave an historical account of the reconquest of the Soudan in two volumes; Bennet Burleigh followed his Sirdar and Khalifa of the year previous with The Khartoum Campaign, 1898; and again we had The Sudan Campaign, 1896-1899, from the pen of "an officer." W. Basil Worsfold dwelt at length on The Redemption of Egypt, and from George Birbeck Hill came Gordon in Central Africa, 1874-1879. An historical epitome of The Moorish Empire, by Budgett Meakin, contained 115 fine illustrations, in addition to maps and charts, and a third edition of The Caliphate, by Sir William Muir, was sent out. A History of the Colonization of Africa by Alien Races was written by Sir Harry H. Johnston; Fifty Years of the History of the Republic in South Africa, 1795-1845, by J. C. Voigt, M.D., filled two volumes; and The Story of the Great Boer Trek and the Origin of the South African Republics, by the late Hon. Henry Cloete, High Commissioner for Natal, was edited by his grandson, W. Broderick Cloete. H. Rider Haggard wrote A History of the Transvaal; in The Transvaal from Within J. P. Fitzpatrick, author of The Outspan, published what he termed a private record of public affairs; The Transvaal Trouble, by John Martineau, extracted from the Life of Sir Bartle Frere, went through a new and cheaper edition; and Richard Proctor in Boers and Little Englishers told the story of the conventions of 1881 and 1884. The Story of the Australian Bushrangers was written by G. E. Boxall, and A Sketch of the New Zealand War by Morgan S. Grace. Returning to earlier times, we have A History of Egypt under the Ptolemaic Dynasty, by J. P. Mahaffy, and A History of Egypt under Roman Rule, by J. G. Milne, forming respectively Vols. III and IV of A History of Egypt from the Earliest Times to the Present Day, edited by W. M. Flinders Petrie, and in Egyptian Chronology Rev. Frederick Gard Fleay made an attempt to conciliate the ancient schemes and to educe a rational system. T. M. Taylor wrote A Constitutional and Political History of Rome, from the Earliest Times to the Reign of Domitian, and C. W. C. Oman an Elementary History of Greece. Two volumes were given by Herbert Fisher to The Mediæval Empire; Vols. VII and

VIII of Italy and her Invaders, by Thomas Hodgkin, were issued, covering respectively 744-774, Frankish Invasions, and 774-814, Frankish Empire. A History of Italian Unity, in two volumes, was by Bolton King, and from H. Remsen Whitehouse we had The Collapse of the Kingdom of Naples. The Real French Revolutionist, by Henry Jephson, pictured vividly the Vendean uprising of 1793, and Napoleon's Invasion of Russia was the theme of Hereford B. George. In the Story of the Nations Series we had China, by Robert K. Douglas; Austria, by Sidney Whitman, working in collaboration with J. R. McIlraith; and Modern Spain, 1788-1898, from the pen of Major A. S. Hume. Finland and the Tsars, 1809-1899, came opportunely from Joseph R. Fisher. A timely new edition was also made of South Africa, written for the same series by George McCall Theal, which was thoroughly revised and brought up to date. In the Series of Mediæval Towns we had The Story of Rouen, by Theodore Andrea Cook; The Story of Nuremberg, by Cecil Headlam; and Toledo: The Story of an Old Spanish Capital, by Hannah Lynch. The Historical Atlas of Modern Europe from the Decline of the Roman Empire was edited by R. Lane-Poole. The Commune of London, and Other Studies, by J. H. Round, had a prefatory letter by Sir Walter Besant; Records of the Borough of Leicester, 1103-1327, were edited by Mary Bateson; The History of the Castle, Town, and Port of Dover was written by S. P. H. Statham; to Thomas Kemp we were indebted for The Black Book of Warwick; Hawkshead had its history, archaeology, etc., investigated by Henry Swainson Cowper; and Alexander George Reid in The Annals of Auchterarder and Memorials of Strathearn contributed 22 curious papers dealing largely with witchcraft and the two Jacobite rebellions. G. Grant Robertson added All Souls' College to the University of Oxford: College Histories, Annals of Westminster School came from John Sargeant, and Annals of Shrewsbury School were supplied by G. W. Fisher, late assistant master. A History of Eton College, by Lionel Cust, and A History of Winchester College, by Arthur F. Leach, appeared in the series of English Public Schools. A ninth series of Cameos from English History, by Charlotte M. Yonge, 40 in all, belonged to the eighteenth century.

Poetry.—Rosamund, Queen of the Lombards, a tragedy, by Algernon Charles Swinburne, was marked by a new element of "resolute simplicity" hitherto lacking to that author's work, and from Stephen Phillips we had Paolo and Francesca, also a tragedy, full of poetry, albeit lacking in dramatic movement. John Oliver Hobbes published Osbern and Ursyne, poetical in form, which received favorable notice, and here as well as anywhere may be mentioned Heather Field and Maeve, prose plays, by Edward Martyn, much controverted in the newspapers. New Poems were added to the Collected Works of Robert Bridges; Wessex Poems of Thomas Hardy were accompanied with other verses and adorned with 30 drawings and designs from his own pencils, both new attempts at expression being decidedly uneven in character; *Fatan Absolved*, entitled also *A Victorian Mystery*, by Wilfrid Scawen Blunt, was an effort at verse founded upon the philosophy of Herbert Spencer, far from successful; from which we turn to *The Wind among the Reeds*, by W. B. Yeats; *The Field Floridus*, and Other Poems, by Eugene Mason; *The Alhambra*, and Other Poems, by F. B. Money-Coutts, and *The Silence of Love*, by Edmond Holmes, a col-

lection of Shakespearean sonnets. *Points of View*, and Other Poems came from George Colmore (Mrs. Georgina Dunn); *Lyra Frivola*, from A. D. Godley; *The Living Past*, and Other Poems, from Thomas Seton Jevons; *Pastorals*, from Miss Elinor Sweetman; *Fugitives*, from Winifred Lucas; and Poems, from A. B. Miall. Laurence Binyon sent out a Second Book of London Visions, performing the difficult task of idealizing common things; *The Vine Dresser*, by Sturge Moore, fell short of absolute excellence; Laurence Housman led the way into *The Little Land*; and Edward Willmore heralded *The Soul's Departure*. *The City of the Soul* was anonymous; Sir Edwin Arnold translated *The Gulistan*, or *Rose Garden*, of Sadi; W. Laird Clowes sent out *Eclogues*; James Williams, *Ventures in Verse*; Rev. T. E. Bridgett, *Sonnets and Epigrams on Sacred Subjects*; F. A. Homfray, *Idyls of Thought and Lyrical Pieces*; Robert Wilson, *Laurel Leaves*; and E. and H. Lee Hamilton, *Forest Notes*. The *Island Race* came from Henry Newbolt, the author of *Admirals All*, and *In Cap and Bell* from Owen Seaman, who chronicled *The Battle of the Bays* a few years ago. There yet remain for mention *Vagrant Verses*, by Rosa Mulholland; *Selected Poems*, Old and New, and *Love Triumphant*, by Annie Matheson; *In a Village*, by J. A. Bridges; *Poems*, by Oliver Orchard; *Verses*, by Maud Holland; *Ballads and Poems*, by Mrs. Clement Shorter; a third series of *Interludes*, by Horace Smith; *A Jester's Jingles*, by Raymond Coulson; *Betwixt Two Seas*, by Violet Fane; *Roses and Rue*, by Alice Furlong; *The Apostle of the Ardennes*, by Lady Lindsay; *The Forest Chapel*, by Maxwell Gray (M. G. Tuttielt); Buchanan's *The New Rome*; and *Ballads of Evolution*, by Herbert Thomas. Two volumes of George Meredith's Poems were collected, containing for the most part his later work. Bertram Dobell edited *The City of Dreadful Night*, and Other Poems, of James Thompson (B. V.); A Facsimile Reproduction of the Proofs and MSS. of some of the Poems of Coleridge, edited by the late J. Dykes Campbell, had a preface and notes by W. Hale White; Prof. Edward Arber opened his *British Anthology* with the first of the ten volumes which will contain it; and Robert Ford sent out *Vagabond Songs and Ballads of Scotland*. *The Open Road* was a little book for wayfarers compiled by E. V. Lucas. Hamlet opened the new edition of Shakespeare by Edward Dowden.

Physical, Moral, and Intellectual Science.—Vol. II of the four which will contain *The Scientific Memoirs of Thomas Henry Huxley*, edited by Prof. Sir Michael Foster and E. Ray Lankester, was sent out near the close of the year, and a new revised and enlarged edition of Herbert Spencer's *Principles of Biology* was begun with the issue of the first volume. Frederick Wollaston Hutton published four lectures on Darwinism and Lamarckism, *Old and New*; Lectures on the Evolution of Plants were delivered by Douglas Houghton Campbell; and Sir John Lubbock wrote *On Buds and Stipules*. No. 51 of Vol. VIII of the *Annals of Botany* was sent out, and Edward Step contributed *The Romance of Wild Flowers to the Library of Natural History: Romance*. An *Elementary Text-book of Botany*, by Sydney H. Vines, contained 397 illustrations, and *The Making of a Daisy*, *Wheat out of Lilies*, and Other Studies in Plant Life and Evolution, by Eleanor Hughes-Gibbs, was intended as a popular introduction to botany; *Flora of County Donegal*, etc., were studied by Henry Chichester Hart; and *A Text-book of Plant Diseases caused by Cryptogamic Parasites* came from George Massee.

The Soluble Ferments and Fermentations, by J. Reynolds Green, belonged to the Cambridge Natural Science Manuals, Biological Series. Earth Sculpture; or, The Origin of Land Forms, was the theme of James Geikie, and from Thomas G. Bonney we had a volume on Volcanoes, their Structure and Significance, in the Science Series. William Carmichael McIntosh, M.D., made a study of The Resources of the Sea. Arthur Berry wrote A Short History of Astronomy, and W. H. S. Monck An Introduction to Stellar Astronomy. Curiosities of Light and Shade were collected by Shelford Bidwell, Marion I. Newbigin wrote on Colour in Nature, and A Treatise on Crystallography came from W. J. Lewis. A History of Wireless Telegraphy, 1838-1899, was written by J. J. Fahie. Early Chapters in Science, by Mrs. W. Awdry, were edited by W. F. Barrett, and Mrs. Brightwen published Rambles with Nature Students. Wonders of the Bird World were revealed by R. Bowdler Sharpe; Vol. IX of The Cambridge Natural History, edited by S. F. Harmer, was devoted to Birds; and Vol. VI was also issued, being Part II of Insects, by David Sharp, and including Bees, Wasps, Ants, Beetles, Butterflies, and Moths. Richard Kearton wrote on Our Rarer British Breeding Birds, their nests, eggs, and summer haunts, accompanying the work with 70 illustrations taken direct from Nature; A Book of Birds, by Carton Moore Park, covered 26 varieties; and W. T. Greene, M.D., drew up a handbook of British Birds for Cages. True Tales of the Insects, by L. N. Badenoch, were illustrated by Margaret J. D. Badenoch, and Insects had their structure and life explained by George H. Carpenter. The Tailless Batrachians of Europe were the subject of a volume by G. A. Boulenger. Fauna Hawaiiensis; or, The Zoölogy of the Sandwich Islands, destined to contain results of the explorations instituted by the Royal Society of London, was begun with the issue of Volume I. In the Cambridge Geographical Series we had Man Past and Present, by A. H. Keane, and John Deniker reviewed The Races of Man. Eaglehawk and Crow, by John Mathew, attempted to solve the problem, Who are the Australians? and the manner of life and archaic rites of The Natives of Central Australia were investigated by Baldwin Spencer and F. J. Gillen. The inaugural Address to the British Association for the Advancement of Science, by the president, Sir Michael Foster, delivered at Dover, reviewed the progress of science during the century in a reverend, almost episcopal manner.

The United States of Europe on the Eve of the Parliament of Peace, by William T. Stead, sounded almost ironical in the face of subsequent events, which decided the question, Can we Disarm? propounded by Joseph McCabe and Georges Darien. The South African Question was vigorously reviewed by Olive Schreiner (Ralph Iron), who claimed to be an English South African, and opposed strenuously its settlement by war; Spenser Wilkinson also outlined British Policy in South Africa; and South African questions were discussed in Collectanea: Essays, Addresses, and Reviews, by Perceval M. Laurence. First Principles in Politics were set forth by William Samuel Lilly, and English Political Philosophy from Hobbes to Maine was passed in review by William Graham. C. B. Roylance Kent presented an historical sketch of The English Radicals, and Sir Richard Temple devoted his attention to The House of Commons. Sir Charles Dilke published a handbook of The British Empire, and The British Empire and Alliances were the theme of Theophilus Scholes, while Theodore Morison was

heard from on Imperial Rule in India. Lord Charles Beresford prophesied The Break-up of China, giving an account of the present commerce, currency, water ways, armies, railways, politics, and future prospects of that unhappy country. The Modern Jew claimed the attention of Arnold White. Vol. I of The Anglo-Saxon Review, edited by Lady Randolph Spencer Churchill, was remarkable for its sumptuous make-up and binding. Local Government and State Aid was added to the Social Science Series by Sydney J. Chapman; Higher Life of Working People had its hindrances discussed by W. Walker Stephens; The Economic Writings of Sir William Petty were edited in two volumes by C. H. Hull; William Smart discussed The Distribution of Income; The Theory of the Leisure Class was an economic study by Thorstein Veblen in the evolution of institutions; Allen Clarke touched upon The Effects of the Factory System; and Prince Kropotkin in Fields, Factories, and Workshops considered the two sister arts, industry and agriculture. The Revival of English Agriculture was predicted by P. Anderson Graham. Questions for Women and Men, propounded by Honnor Morten, had an introduction by Mrs. Henry Fawcett. Our Foes at Home, by Hugh H. Lusk, a former member of the Parliament of New Zealand, discussed American problems.

Among the most striking books on religious subjects are to be mentioned Naturalism and Agnosticism, the Gifford Lectures delivered by Prof. James Ward during 1896-'98, in two volumes; Vol. II of Elements of the Science of Religion (Ontological), the same lectures for 1896, by C. P. Tiele; the Bampton Lectures for 1899, by W. Ralph Inge, on Christian Mysticism; R. H. Hutton's Aspects of Religious and Scientific Thought; The Great Law, a study of religious origins and of the unity underlying them, by William Williamson; Lectures and Essays on Natural Theology and Ethics, by William Wallace, edited, with a biographical introduction, by Edward Caird; Texts Explained, by Dean Frederick W. Farrar; Sermons: Biographical and Miscellaneous, of Benjamin Jowett, edited by W. H. Fremantle; The Eve of the Reformation, studies in the religious life and thought of the English people in the period preceding the rejection of the Roman jurisdiction by Henry VIII, by Francis Aidan Gasquet, D.D.; Vol. II of The Archpriest Controversy, documents relating to the dissensions of the Roman Catholic clergy, 1597-1602, edited by T. G. Law for the Royal Historical Society; Undercurrents of Church Life in the Eighteenth Century, by Canon Thomas Thelsson Carter, who published also The Spirit of Watchfulness, and Other Sermons; Neglected Factors in the Study of the Early Progress of Christianity, by James Orr, D.D.; and A Critical History of the Doctrine of a Future Life in Israel, in Judaism, and in Christianity, etc., the Jowett Lectures for 1898-'99, by Rev. B. H. Charles. The Moral Order of the World in Ancient and Modern Thought was the theme of the Gifford Lectures for 1897-'98, by Dr. Alexander Balmain Bruce, who also supplied an exegetical study of The Epistle to the Hebrews; Dr. James Stalker supplied The Christology of Jesus; Church and Faith was the title of essays on the teaching of the Church of England, by numerous authorities; Canon Charles Gore followed his practical exposition of St. Paul's Epistle to the Ephesians with St. Paul's Epistle to the Romans, Vol. I covering chaps. i-viii; Dr. Francis Paget contributed an Introduction to the Fifth Book of Hooker's Treatise on the Laws of Ecclesiastical Polity;

Helps to Godly Living was the title of devotional extracts from the writings and addresses of Archbishop Frederick Temple, selected and arranged by J. H. Burn; The Trial of Jesus Christ was the subject of a legal monograph by Alexander Taylor Innes; Andrew Martin Fairbairn, D.D., wrote on Catholicism, Roman and Anglican; and George Cusack waved The Red Rag of Ritual in a witty and caustic satire. The Quest of Faith was pursued by T. Bailey Saunders; The Teachings of the Books proved to be a work of collaboration by Herbert L. Willett and James M. Campbell on the literary structure and spiritual interpretation of the books of the New Testament; Edgar C. S. Gibson edited The Book of Job with an introduction and notes; and to E. A. Wallis Budge we were indebted for The Earliest Known Coptic Psalter, edited from the Unique Papyrus Codex, Oriental 5,000 in the British Museum, the text being in the dialect of upper Egypt. Authority and Archæology, Sacred and Profane, was the title of essays on the relation of monuments to biblical and classical literature, by Samuel Rolles Driver, D.D., E. A. Gardner, and others, and the same theme was pursued in Light from the East; or, The Witness of the Monuments, an introduction to the study of biblical archæology, by Rev. C. J. Ball. The life and customs of Babylonians and Assyrians were described by Rev. Archibald H. Sayce in the Semitic Series, and from E. A. Wallis Budge we had two books upon Egyptian Ideas of the Future Life and Egyptian Magic. Canon W. C. E. Newbolt added Religion to the Oxford Library of Practical Theology; Public-school Sermons of Dr. Henry Montagu Butler were collected into a volume; S. A. Alexander outlined The Christianity of St. Paul; and James Drummond was the author of the second number of International Handbooks to the New Testament upon the Epistles of Paul the Apostle. Stones Rolled Away and The New Evangelism were two collections of sermons and addresses by the late Henry Drummond. The Conversion of the Maoris was described by Rev. Donald MacDougall. Vol. I of A Dictionary of the Bible, edited by James Hastings, D.D., covered A—Feasts, and Vol. II, Feign—Kinsman. A Short History of Free Thought, Ancient and Modern, came from John M. Robertson, and From Comte to Benjamin Kidd, by Robert Mackintosh, D.D., presented the appeal to biology or evolution for human guidance. Faith Healing and Christian Science were discussed by Alice Feilding. Roman Canon Law in the Church of England was the subject of six essays by Frederic William Maitland.

Books of a miscellaneous character worth mentioning include Field Artillery with the Other Arms, by Major E. S. May, and a Text-book of Theoretical Naval Architecture, by E. L. Atwood, assistant constructor in the English royal navy, both technical in character; The Ship: Her Story, by William Clark Russell; Idylls of the Sea and The Way they have in the Navy, by Frank T. Bullen; Naval Yarns, by W. H. Long; Medical Works of the Fourteenth Century, by Dean George Henslow, with a list of plants recorded in contemporary writings, with their identifications; a work on Tropical Diseases, by Patrick Mason, M.D.; A Book about Bells, by Rev. G. S. Tyack; Old Clocks and Watches, and their Makers, by Frederick James Britten; The Right to bear Arms, a work on heraldry, by X; Dancing in All Ages, by Edward Scott; Wood and Garden, by Gertrude Jekyll; Our Gardens, by Dean Samuel Reynolds Hole, in the Haddon Hall Library; My Roses and How I Grew Them, by Helen Milman

(Mrs. Caldwell Crofton); Fruit Culture for Amateurs, by P. T. Wright; and The Illustrated Dictionary of Gardening, by George Nicholson, in four volumes. Vol. III was issued of Modern Opera Houses and Theaters, by Edwin O. Sachs, with supplement; Arthur Shadwell dwelt upon The London Water Supply; and Sidney Barwise wrote on The Purification of Sewage. Rev. G. C. Bateman and R. A. R. Bennett were joint authors of The Book of Aquaria, and W. A. S. Westoby sent out Vol. I of The Adhesive Postage Stamps of Europe. Railway Block Signaling, by James Pigg, explained the principles of train signaling and apparatus for insuring safety. The Alleged Haunting of B— House, including a journal kept during the tenancy by Col. Lemesurier Taylor, was edited by A. Goodrich Freer (Miss X) and John, Marquess of Bute. Solo Whist had its whys and wherefores explained by C. J. Melrose. A History of Steeple Chasing came from William C. A. Blew, the author of The Quorn Hunt and its Masters; T. F. Dale wrote The History of the Belvoir Hunt, and also contributed the first volume of a new series of the Library of Sports, devoted to Riding, Driving, and Kindred Sports. G. A. B. Dewar wrote on The South Country Trout Streams for the Angler's Library, Fly Fishing in the Haddon Hall Library was by Sir E. Grey, and The Rabbit was added by J. E. Harting to the Fur, Feather, and Fin Series. Seven Lectures on the Law and History of Copyright in Books, by Augustine Birrell, were collected into a volume, and from Sir Sherston Baker we had First Steps in International Law.

Voyages and Travels.—Owing to the outbreak of the war in South Africa a third edition was sent out of Hon. James Bryce's Impressions of South Africa, with a new prefatory chapter dealing with the events which have induced the present crisis, and a new edition of Capt. Young-husband's South Africa of To-day; Canon W. J. Knox published Sketches and Studies in South Africa; Mrs. Lionel Phillips, South African Recollections; Roy Devereaux threw Side Lights on South Africa; while The Transvaal and the Queen, by Lieut.-Col. N. Newnham-Davis contained reminiscences of his service as a free lance in the republic twenty years ago. Montague George Jessett pronounced The Key to South Africa: Delagoa Bay. Under the African Sun, by Dr. W. J. Anson, gave a description of native races in Uganda, sporting adventures, and other experiences, illustrated from photographs; Harold Bindloss spent some time in The Niger Country; Among the Wild Ngoni, by W. A. Elmslie, contained some chapters in the history of the Livingstonia Mission in British Central Africa; a record of travel and discovery In Dwarf Land and Cannibal Country, by A. B. Lloyd, was supplemented by Sport in East Central Africa, by F. Vaughan Kirby; British West Africa was from the pen of A. F. Mockler Ferryman; and from Mary H. Kingsley we had a collection of West African Studies. Somaliland was visited by C. V. A. Peel. Travels in Southern Arabia and the Soudan, by the late Theodore Bent and Mrs. Bent, were illustrated; Parts I–III of The Temple of Deir el Bahari, by E. Naville, were sent out, being one of the publications of the Egypt Exploration Fund; the results of three years' work by the first female explorers in Egypt, Margaret Benson and Jane Gourlay, were given to the world in The Temple of Mut in Asher. Mogreb-El-Acksa: A Journey in Morocco, by R. B. Cunningham-Graham, was followed by The Ipané in the Overseas Library, and Tunisia and the

Modern Barbary Pirates were the subjects of a handsome volume by Herbert Vivian. George W. Stevens described the reception of Lord Curzon as viceroy in his brilliant book *In India*; Lucy E. Guinness went *Across India at the Dawn of the Twentieth Century*; the same country is the scene of *Ivory, Apes, and Peacocks*, by Israel; a *Second Series of Asiatic Studies, Religious and Social*, came from Sir Alfred C. Lyall; Capt. F. E. S. Adair spent *A Summer in High Asia*; William Jameson Reid traveled *Through Unexplored Asia*; R. L. Jefferson took *A New Ride to Khiva on a bicycle*; Hugh Clifford found himself *In a Corner of Asia*; and Sir Frank Athelstane Swettenham gave us pen pictures of *The Real Malay*. *Russia in Asia*, by Alexis Krausse, was at once a record and a study; Isabella Mary Phipps paid *A Visit to the Russians in Central Asia*; and Henry J. Pearson went *Beyond Petsora Eastward*. The *Philippines and Round About*, by Capt. G. J. Younghusband, and a second edition of *The Philippine Islands*, by John Foreman, revised and enlarged and brought down to the present time, were of interest to Americans, as was also *The Caroline Islands*, termed in subtitle *Travel in the Sea of the Little Lands*, by F. W. Christian. *Intimate China*, by Mrs. Archibald Little, told of the Chinese as she saw them, and from James Johnston we had *China and its Future in the Light of the Antecedents of the Empire, its People, and their Institutions*. Mrs. J. F. Bishop visited *The Yangtze Valley and Beyond*. Stafford Ransome portrayed for us *Japan in Transition*; Mrs. Hugh Fraser as *A Diplomatist's Wife in Japan* published two volumes of letters beautifully illustrated and luxuriously equipped; and *The New Far East*, by Arthur Diósy, dealt with the same country. Margaret Thomas, the author of *A Scamper through Spain and Tangier*, made a record of *Two Years in Palestine and Syria*. *Spinifex and Sand*, by David W. Carnegie, was a narrative of five years' pioneering and exploration in western Australia; H. Cayley Webster went *Through New Guinea and Other Cannibal Countries*; and *Tunafuti*, by Mrs. Edgeworth David, described three months on a coral island, giving an unscientific account of a scientific expedition. *Tangweera*, by C. Napier Bell, pictured life and adventure among gentle savages of Central America; *The Highest Andes*, by Edward Arthur Fitz Gerald, was a record of the first ascent of Aconcagua and Tupungato in Argentina, and the explorations of the surrounding valleys, which contained chapters by Stuart Vines and contributions by Prof. Bonney and others. James Rodway, the author of *In the Guiana Forest*, was at home *In Guiana Wilds*, and W. Anderson Smith declared *Temperate Chile: A Progressive Spain*. From *Sea to Sea* was a record of travel, in two volumes, by Rudyard Kipling; William Archer volunteered observations and reflections on *America To-day*; and T. C. Porter gave out *Impressions of America*. Grant Allen instanced the advantages to be derived from *The European Tour*; Tighe Hopkins was *An Idler in Old France* to good purpose; David Storrar Meldrum was heard from upon *Holland and the Hollanders*; Byzantine Constantinople was the subject of a superb volume by Alexander Van Millingen; *The Annals of Mont Blanc* were written by C. E. Mathews; Francis Gribble chronicled *The Early Mountaineers*. *Peaks and Pines* was another *Norway* book, by J. A. Lees. Two volumes of *A Book of the West*, by S. Baring-Gould, were devoted respectively to *Devon and Cornwall*; By *Moor and Fell*, by Halliwell Sutcliffe, dealt with an unhackneyed corner

of Yorkshire; Shropshire was described by J. C. Augustus Hare; *Highways and Byways in Donegal and Antrim*, by Stephen Gwynn, had illustrations by Hugh Thompson; Shakespeare's *Country* was added to the series of *Little Guides*; and *Emeralds chased in Gold* were, of course, the islands of the Forth, which had their story, ancient and modern, told by John Dickson.

The following are the statistics of book production in England in 1899, compared with those of 1898, from the London Publishers' Circular:

DIVISIONS.	1898.		1899.	
	New books.	New editions.	New books.	New editions.
Theology, sermons, biblical, etc.	535	153	590	108
Educational, classical, and philological	732	189	790	300
Novels, tales, and juvenile works.	1,758	644	1,835	736
Law, jurisprudence, etc.	117	46	97	63
Political and social economy, trade, etc.	437	97	350	114
Arts, sciences, and illustrated works.	263	32	306	33
Voyages, travels, geographical research	133	39	169	35
History, biography, etc.	618	125	528	126
Poetry and the drama	290	81	317	77
Yearbooks and serials in vols.	347	..	367	..
Medicine, surgery, etc.	160	36	155	73
Belles-lettres, essays, monographs, etc.	182	36	290	30
Miscellaneous, including pamphlets, not sermons.	436	30	187	6
Totals	6,008	1,508	5,971	1,596
	6,008	7,516		5,971

LITERATURE, CONTINENTAL, IN 1899.

While the annotations in these classified lists are necessarily concise, they are intended to indicate the minor as well as the greater movements in literature.

Belgium.—Beginning with history, as is usual in these annual reports, there are noted A. Gailard's *Histoire du Conseil de Brabant*; J. Lammeere's *Ordonnances de Charles V* (Vol. II); Baron J. de Chestret de Hanef's fine *La Maison de La Marck* (a bit of mediæval history); a monograph on Daniel de Borchgrave, first Secretary of State of the United Provinces (1550-'90), by one of his descendants; A. Hansay's *La Formation et l'Organisation du Domaine de l'Abbaye de Saint-Trond* (a "curious study of economic history"); Baron C. G. de Pélichy's interesting *L'Organisation du Travail dans les Ports Flamands*; and Henri Pirenne's history of Belgium to the fourteenth century (a noteworthy success), published in German as one of Lamprecht's series before appearing in French. Vol. III of *Correspondance de Rubens* has been issued by Max Rooses and the late C. Ruelens, and F. Vander Haeghen is continuing his noted *Bibliotheca Belgica*. Belgium's African interests are well discussed in F. Cattier's *Droit et Administration du Congo*; *L'État indépendant du Congo*, by A. J. Wauters; A. de Haulleville's *Les Aptitudes colonisatrices des Belges*; and V. Collin's *La Question du Haut Nil au Point de Vue belge*. E. Carton de Wiart's *Les grandes Compagnies coloniales anglaises du XIX^e Siècle* and H. Martel's *Les Colonies anciennes et modernes et les grandes Compagnies commerciales* illustrate an interesting subject. The charming *Un Séjour à Patmos*, by J. Bidez and L. Parmentier, deals especially with the life of Greek monks. Works on military science include M. De Maere d'Aertrycke's history of cavalry among the ancients, and Gen. Brial-

mont's *Progrès de la Défense des États et de la Fortification permanente depuis Vauban*. In economics and sociology we have *Recherches sur l'Histoire de l'Economie politique*, by Ernest Nys (1898); *L'Évolution de la Neutralité en Droit International*, by Chevalier Descamps; *Science pénale et Droit positif*, by A. Prins; *Synthèse sociologique*, by R. Simons; *La Vie sociale moderne*, by M. Heins; *Parasitisme organique et Parasitisme social*, by J. Massart and E. Vander Velde; G. Legrand's *Le Régime successoral*; G. Cornil's *L'Assurance municipale contre le Chômage involontaire*; W. J. Kerby's *Le Socialisme aux États-Unis*; and a masterly study on the Socialist party of Ghent and the Vooruit, by L. Varlez. Religious and philosophical works are A. de Potter's *La Justice et la Sanction religieuse*; *Le Catholicisme américain*, by the Jesuit A. D. Delattre; and Mgr. Mercier's *Les Origines de la Psychologie contemporaine*. Maurice Maeterlinck, in *La Sagesse et la Destinée* ("patient, resigned philosophy"), renounces his former views of the world and art, and becomes an enthusiastic prophet of realism. Fierens-Gevaert's curious *La Tristesse contemporaine* is a study of moral and intellectual influences in the literature of our day and of the "causes of the melancholy views of life taken by the present generation." J. Garson's *Les Créateurs de la Légende Napoléonienne* (Barthélemy et Méry) deals with another interesting literary question. Escal-Vigor is a new novel by Georges Eekhoud (style quite Flemish), and *Le Miroir du Ciel Natal* and *L'Arbre* are posthumous works by Georges Rodenbach. Further progress includes Tonnelles, by M. Des Ombiaux, C. Lemonnier's *Adam et Eve* and *Une Femme*, and Pol Demade's *Contes inquiets*. New verse of note is found in V. Gille's *Le Collier d'Opales* and Les Vignes de ma Muraille and E. Verhaeren's *Les Visages de la Vie*.

While French literature in Belgium is the "richest and most varied," the Flemish is also a "living force." The study of national history has been earnestly cultivated by writers such as E. Vlietinck (history of Ostend and its siege, 1601-1604), J. Opdebrinck (a "declamatory, but useful" work on the Protestants of the sixteenth century at Poperinghe), J. F. Pallemmaerts and Aug. Rees (history of the Boerenkrijg of 1798, the revolt of the peasants against France), and M. De Decker (careful monograph on J. F. Van de Velde, 1743-1823). Pol Anri's interesting *Schemas en Wenschen* deals with the pedagogy of Herbart. F. Van Duyse has issued a delightful collection of old religious songs in *Dit is een suyverlijck Boecxken*, and K. Heynderickx has written a *Studenten-Liederboek* for the students of the Catholic University of Louvain. J. Vercoillie ("head of the young school of philology") has remodeled his noted *Etymologisch Woordenboek der nederlandsche Taal*. The late Willem Rogghé's *Gedenkbladen* tells the "curious history of the Flemish movement at Ghent." Pol de Mont offers an *Inleiding tot de Poëzie*. H. Meert and W. de Vreese have each written on the Gallicisms of contemporary French writers. A. Vermeylen's doctor's dissertation on Jonker Jan Vander Noot, a Brabantine poet of the sixteenth century, is a fresh though elaborate study, and especially noteworthy. A. de Cock and Pol de Mont have edited Vol. IV of their collection of Flemish folk tales. Fiction to be mentioned is the posthumous work of Mme. Cogen, daughter of the poet Ledeganck; *Licht en Bruin*, two novels by G. Seggers; the realistic *Lenteleven*, by the talented S. Streuvels; *Uit Vlaanderen*, by C. Buyasse; historical novels by Noterdaeme and

others; and books by P. Danco, G. Lefevre, J. Leroy, and other newcomers. In poetry are noted the veteran Karel Bogaerd's *Wilde Rozen*; *Mijn Herte weet*, by H. de Marez; Miss Hilda Ram's *Wat zei, wat zong dat Kwezelken*; Helene Lapidoth-Swarth's *Stille Dalen* (marks a change; contemplates the past instead of yielding to new sensations; "exquisite diction . . . unaltered"); and the queer complaints of K. Waeri, of Ghent, described as a singer of the streets. In the drama Flemish authors do not appear to succeed as well as in the novel and in poetry. We are told that, "although . . . Antwerp and Brussels have opened sumptuous Flemish theaters, . . . the Flemish stage is more abundantly than brilliantly supplied."

The German movement along the frontier of the Rhine provinces and Luxembourg continues. It is headed by G. Kurth, who edits its organ, *Deutsch Belgien*; and a review, half Flemish, half German (*Germania*), has been started in Brussels. Ph. Bourg, a German Belgian, has published *Pabst und Fürst*, a five-act play.

Bohemia.—Among new publications are noted A. Srb's *Political History of the Bohemian Nation, 1861-'95 (1897-'99)*; J. Svatek's *History of the Bohemian Nation, 1705-1780*; *Monument in Celebration of the Fiftieth Anniversary of the Reign of the Emperor and King Francis Joseph: Scientific and Artistic Development of the Bohemian Nation, 1848-'98*; A. Bráf's *Letters on the Study of National Economy*; and two German works, J. Lippert's *Sozial-Geschichte Böhmens in vorhussitischer Zeit* (Vol. II, 1898) and *Forschungen zur Kunstgeschichte Böhmens: Veröffentlicht von der Gesellschaft zur Förderung deutscher Wissenschaft, Kunst und Litteratur in Böhmen* (Vol. III).

Denmark.—National history of special note includes Major-Gen. Holten's posthumous memoirs, scrupulously sincere (created a sensation, especially by the unfavorable account of Frederick VII); Kr. Erslev's *Valdemarernes Storhedstid. Studier og Omrids*; and H. C. Bering-Liisberg's topographical investigations in Copenhagen, particularly the *Gamle Torv. Regesta diplomatice historice danicæ cura Societatis Scientiarum Danicæ, Series II, Tomus posterior IV*, has been issued. Georg Brandes, in *Danskheden i Sønderjylland*, condemns the German administration in Sleswick, and writes unfavorably of German as compared with Danish culture. P. Scavenius offers *Indiske Dage. Fra Bombay til Madras samt Rejser i det sydlige Dekan*. Some noteworthy monographs on individuals have appeared: P. A. Rosenberg's *Søren Kierkegaard, hans Liv, hans Personlighed og hans Forfatterskab* (1898); Julius Lange. *Breve fra hans Ungdom med en Inledning og en Ramme* (1898), a warm tribute by G. Brandes; Vilh. Andersen's *Adam Oehlenschläger, et Livs Poesie. Ungdom, a study of the poet's literary evolution in youth*; Holberg og hans Scene (1898), by E. Brandes, who has published also *Det unge Blod and Smaa Skuespil* (1898); Chr. Bruun's *Peter Frederik Suhm, 18 Oktober, 1728-7 September, 1798: En Levnedsbetærelse* (1898), a eulogistic character picture by a not remarkable historian; and E. Hannover's *Maleren C. W. Eckersberg. En Studie i dansk Kunsthistorie* (1898).

The realistic novel of psychological or physiological aspect, scientifically objective, has been in vogue in recent years; critics like A. Ipsen now tell us of a reaction, after a "general perfection of style and expression has been reached." New titles in fiction are H. Bang's *Det hvide Hus* (nervous, fervent style) and Liv og Død; K. Larsen's

continuation of his *Danske Mænd* (humorous description of a jail bird; characterization toned down; dialect excellent); P. Nansen's *Troskabsprøven*: Smaa-historier (second edition); S. Schandorph's *Fortællinger* (1898); A. Ipsen's *Turisten og andre Fortællinger* (1898); works such as Mathilda Malling's *Doña Ysabel* (a story of the Napoleonic wars in Spain) and M. Henckel's *Lolotte. En Roman fra den gustavianske Periode* (1898), produced by the tendency toward the historical novel; P. Fr. Rist's *Pagebreve* (imitates the affected style of the period of Christian VI and Frederick V in pictures of the Danish court of that time); H. Höfding's *Mindre Arbejder*; and H. Pontoppidan's *Lykke-Per hans Kærlighed*. There is much poetry of merit: V. Rørdam's clever retelling of the tale of Beowulf; S. Michælis's *Sirener* and translations from Baudelaire's *Fleurs de Mal*; J. Jørgensen's serene and perfect *Digte*; Aage Matthison-Hansen's *Venusspeilet og andre Digte*; S. Schandorph's *Lyriske Portrætter* (1898); Erik Waage's *Bachelor*; and new work by S. Clausen (a poet "of Arcadia"), O. Hansen (imitates old folk songs), etc.

Finland.—See Sweden.

France.—Again have the French assiduously studied those interesting periods of their country's history, the Revolution and the empire, as witness Ph. Sagnac's *La Législation civile de la Révolution Française* (emphasizes the "relation between social phenomena and legal changes"); André Lichtenberger's *Le Socialisme et la Révolution Française* (finds the Revolution an epoch in the development of socialism; "practically an unworked field"); *Les Colonies pendant la Révolution, la Constituante et la Réforme Coloniale*, by Léon Deschamps (continuation of his *Histoire de la Question Coloniale en France*, 1891); P. Cottin's *Toulon et les Anglais en 1793* (1898); H. Zivy's *Le treize Vendémiaire an IV* (1898); E. Noël's *Brumaire, Scènes historiques* ("dramatic presentation of Bonaparte's seizure of the supreme power"); E. Gachot's noteworthy *La deuxième Campagne d'Italie, 1800*; F. Masson's *Joséphine de Beauharnais, 1763-'96* (1898; her life before her marriage to Napoleon; "profound knowledge of smallest details") and *Joséphine Impératrice et Reine* (1898), giving minute details concerning her improvements and additions to Malmaison; *Mémoires de Gen. Desvernois*, edited by A. Dufourcq (1898); C. Scheffer's excellent *Bernadotte Roi; Murat's correspondence* (preface by H. Houssaye); and Henry Houssaye's *1815—Waterloo* (forms the third and last volume of his history of the fall of the First Empire, based on original documents, including English material; infinite details concerning the army; clear style). Other periods and phases of French history are dealt with in R. Parisot's prolix *Le Royaume de Lorraine sous les Carolingiens, 843-923*; C. Schmidt's *Les Seigneurs, les Paysans et la Propriété rurale en Alsace en Moyen-Âge* (1898; important account of economic conditions); A. Lefranc's *Les Idées religieuses de Marguerite de Navarre: La Campagne de Minorque*, by Raoul de Cisternes (much new material on the Maréchal De Richelieu, eighteenth century); G. Lacour-Gayet's original researches into *L'Éducation politique de Louis XIV* (1898; "abounds in skillful analyses and appreciations of contemporary authorship"); *Du Cause de Nazelle's Mémoires du Temps de Louis XIV*, with introduction and notes by E. Daudet (a valuable addition to memoir literature; throws strong light on the practically forgotten conspiracy of Vanden Enden, Latreaumont, and De Rohan); *Correspondance du général de Martange*, brought out by C.

Bréard (deals chiefly with European politics between 1761 and 1779); Pierre de Ségur's *La Dernière des Condé* (dealing with the Princess Louise Adélaïde de Condé and Mme. De Monaco; many unpublished letters of the prince); P. de Nolhac's animated, succinct *La Reine Marie Antoinette*; E. Daudet's interesting *Louis XVIII et le Duc Decazes* (based on inedited documents); Marquis Philippe de Massa's *Souvenirs et Impressions, 1840-'71*; S. Blot's *Napoléon III*; and the memoirs of Mme. de la Ferronnays ("making a great sensation"). It is asserted that the "document" is to-day of paramount importance; facts and not the philosophy of history are asked for. The stream of Dreyfus literature includes *Gonse-Pilate* and *Le petit Bleu* (valuable additions), and *Karl et Quesney de Beaupaire*. *Le Malaise de la Démocratie*, by Gaston Deschamps, is a thoughtful work on contemporary France and its afflictions; and Arnold's *A quoi tient la Supériorité des Français sur les Anglo-Saxons*, an answer to Demolins. Emile Faguet discusses *Questions politiques*, and Léon Poincard reviews the political, financial, and social situation in *Vers la Ruine*. Noteworthy works on the history and description of other lands are R. Waddington's important *La Guerre de sept Ans: Histoire diplomatique et militaire. Les Débuts; Diderot et Catherine II*, by M. Tourneux (much unpublished material regarding Diderot's sojourn in Russia); Pierre Boyé's *Stanislas Leszczyński et le troisième Traité de Vienne d'après les Archives d'État, les Papiers du Roi de Pologne et autres Documents inédits*. [*Un Roi de Pologne et la Couronne ducal de Lorraine*] (1898; a thorough study; a "noteworthy fruit of present historical studies in France"); Horn's learned *Saint Étienne, Roi de Hongrie*; Charles Andler's *Le Prince de Bismarck* (fairly temperate; masterly style); books by E. Lardy, P. Mille, and H. Turol on *La Guerre Gréco-Turque*; Y. Guyot's *L'Évolution politique et Sociale de l'Espagne*; C. Bride's *La Guerre hispano-américaine de 1898*; Th. Bentzon's interesting impressions of *Nouvelle France et Nouvelle Angleterre*; the exhaustive *La Vie américaine: Ranches, Fermes et Usines*, by Paul de Rousiers; L. Boillot's *Aux Mines d'Or du Klondike: Du Lac Bennett à Dawson City* (various other books on America, including several novels); *Le Soulèvement des Travailleurs d'Angleterre en 1381* (peasants' revolt), by the late André Réville; Homelle's *Hommes et Choses d'Outremer* (includes eulogies on Gladstone and Cecil Rhodes); R. de Caix's valuable *Fashoda: La France et l'Angleterre* (a careful statement; much light thrown on hitherto shadowy points); E. Aubin's *Les Anglais aux Indes et en Égypte* (describes success in colonization and invites France to imitate English methods); A. Bordeaux's *Rhodésie et Transvaal: Impressions de Voyage* (1898); P. Mille's *Au Congo belge*; M. E. Bard's *Les Chinois chez Eux*; and M. Monnier's *Tour d'Asie*. Among the many additions to the broad divisions "sociology" and "economics" are *L'Éducation nouvelle*, by E. Demolins (interesting; commends school system of England and the United States); *Nos Fils, que feront-ils? Nos Filles, qu'en feront-elles?* by Hugues le Roux, who, like Demolins, eloquently urges the advantage of energy, activity, initiative; A. Fouille's *Les Études classiques et la Démocratie* (advocates dropping of Greek in secondary schools; favors liberal education); Gustave Le Bon's *Psychologie du Socialisme* (antisocialistic; considers men not equal; regards socialism as a religion); an eloquent and earnest exposition of the *Action socialiste*, by J. Jaurès; A. Lichtenberger's *Le Socialisme utopique: Études*

sur quelques Précurseurs du Socialisme (1898); E. Fournière's L'Idéalisme social (extols socialism); M. Hauser's Ouvriers du Temps passé (traces the labor question to the fifteenth century); A. Lichtenberger's Socialisme historique (dealing with the idea in France in 1789 and 1796); Les Industries monopolisées aux États-Unis, by Paul de Rosiers (suggestive, though not profound); Mme. Anna Lapérière's Le Rôle social de la Femme (directed against one-sided "feministic" efforts; a plea for woman in the home); J. Hocart's La Question juive (defends the Jews); and Jules Lemaitre's La Franc-Maçonnerie, directed against the order, as is also G. Goyau's book of the same title. Philosophical studies are H. Berr's L'Avenir de la Philosophie and L'Abbé Piat's La Destinée de l'Homme (against materialism; aims to prove an after life). H. Joly writes with analytic insight of Saint Ignace de Loyola. In art and archæology we have H. d'Arbois de Jubainville's La Civilisation des Celtes et celle de l'Épopée homérique (1898); Syracuse, ses Monnaies d'Argent et d'Or au Point de Vue artistique: la Coiffure antique et ses Développements successifs, by Comte Albéric du Chastel de la Howardries; J. Schopfer's Le Voyage idéal en Italie (a six months' itinerary based on the chronological sequence of the great periods of art in the Italian cities, instead of on a geographical order); C. Enlart's valuable L'Art gothique et la Renaissance en Chypre (clear style); Robert de Montesquiou's Autels privilégiés (plea for art for the few; shows refinement and a certain affectation of style); T. de Wyzewa Beethoven et Wagner: Essais de Critique biographique (1898); and S. Peladan's Réponse à Tolstol: La Décadence esthétique (1898). Literary criticism and biography, ever voluminous, include H. Béranger's able appreciation of L'Année intellectuelle; René Doumic's Études sur la Littérature française 3^e Série (strongly influenced by Brunetière; preference for all that is of the seventeenth century; witty, though uncompromising); Adolphe Brissot's Portraits intimes (fourth series; personal interviews, wide of range, some of permanent value); a new series of Impressions de Théâtre, by J. Lemaitre (witty, clear, and graceful as always); Lintilhac's Conférences dramatiques; Aug. Filon's De Dumas à Rostand; and Charles Recolin's L'Anarchie intellectuelle (forcible protest against short-lived literary fashions). One critic finds that there are no longer literary schools in France—only tendencies. Monographs on individual writers are L. Pinvert's Jacques Grévin, 1538-70: Étude biographique et littéraire (the first thorough account of Grévin's many-sided activity); Crouslé's La Vie et les Œuvres de Voltaire ("the most important contribution to Voltaire studies since the publication of Desnoiresterres's great work"); G. Guizot's almost completed study on Montaigne, published posthumously, with a preface by E. Faguet; Wladimir Karenine's George Sand: Sa Vie, ses Œuvres, 1804-76; E. Faguet's Flaubert (in Les grands Écrivains français); L. Séché's Jules Simon: Sa Vie, son Œuvre et son Temps, 1814-96 (1898); Charles Garriasson's complete though somewhat dislocated Théophile et Paul de Viau: Étude historique et littéraire; J. J. Jusserand's admirable Shakespeare en France sous l'Ancien Régime; and P. Lafitte's Le Faust de Goethe (a special application of the author's theory of art). J. Michelet's Lettres inédites, adressées à Mlle. Mialaret (Mme. Michelet) have been published. P. Loti's Reflets sur la sombre Route consists of essays, descriptions, and sketches. A. Daudet's Notes sur la Vie is a col-

lection of literary ideas, possible plots, etc., and lets one into the secret of the author's methods of work.

The more important titles in the long list of prose fiction are Zola's Fécondité (a tendency novel, anti-Malthusian; has called forth widely varying criticism; we are told, on the one hand, that the book shows all of the author's faults and is unworthy of his genius, has incessant repetitions and sketchy character drawing, the palatable portions lost in a maze of brutally inconsiderate description of unpleasant details; on the other hand, that the "aim . . . is to emphasize the importance of the home and its traditions" to the endurance of a great nation; "purity of domestic life the keystone of power and civilization"); Paul Bourget's La Duchesse bleue (argues for objectivity in an artist; subtle psychology); Anatole France's L'Anneau d'Améthyste (fine satire, graceful fantasy, rich thought; "a little more bitter and pessimistic than usual"); third volume of that Histoire contemporaine, of which the first two were L'Orme du Mail and the Mannequin d'Osier (these three works will remain, we are told, "the most precious testimonies and documents of an epoch anything but deficient in literary manifests"); P. and V. Margueritte's Le Poste des Neiges et Femmes nouvelles ("this novel sustains with ardor the moral *renaissance* of woman, without falling into the exaggeration of intolerant *femininists*"); E. M. de Vogüé's Les Morts qui parlent (gives author's ideas on contemporary men and questions in the form of fiction; elegant style; strong eloquence); Léon Daudet's Sébastien Gouves (ridiculing certain effete sides of the medical profession, like his Morticoles, with satirical force); René Bazin's La Terre qui meurt (a sober, forcible story of the difficulties of the peasant and of abandoned farms in the district of Marais); P. Adam's La Force (rather unvarnished picture of animal passions; author has an unusual talent for characterizing and story telling); Estaunié's Le Ferment (on the educated proletariat and its restless longings); André Couvreur's able and unpleasant Le Mal nécessaire (as hostile to surgeons as Les Morticoles, and full of indecencies); Jean Aicard's L'Ame d'un Enfant (attacks the education at the *Université*) and Méli-ta; Jean Thorel's Devant le Bonheur; Les beaux Dimanches, by Henri Lavedan (bright and mercilessly satirical as usual); H. Fèvre's Les Liens factices (naturalistic; much pathos); Ernest La Jeunesse's L'Holocauste and L'Inimitable ("fine artistic qualities"); René Boylesaye's Mlle. Cloque; Georges Ohnet's Au Fond du Gouffre ("an echo of the Dreyfus case"); O. Mirbeau's Le Jardin des Supplices (something for "lovers of the horrible"); Verger-Fleuri (affected innocence and exaggerated sentimentality), by Catulle Mendès; L'Affaire Blaireau (humorous), by Alphonse Allais; J. H. Rosny's Les Âmes perdues, La Fauve, and L'Aiguille d'Or; J. Richepin's Contes de la Décadence romaine (1898); E. Daudet's Les deux Evêques; works by A. Bonsergent, G. Dubis-Dessaulle, G. Lecomte, A. Boissière, Mlle. De Bovet ("one of the ablest living writers of short stories"); and the usual yearly product of A. Theuriot, H. Leroux, E. Delpit, L. Hennique, Th. Cahu, R. O'Monroy, and the prolific Gyp and P. Maël. Poetry is naturally less voluminous. Worth noting are La Chanson de la Bretagne, by A. Le Braz (who sings with youthful vigor and healthy realism of his native land); Maurice Magre's La Chanson des Hommes; Lebey's Les Poèmes de l'Amour et de la Mort (simplicity of style); J. Bach-Sisley's Artiste et

Poète (impressions of works of pictorial and plastic art); Montier's *L'Idéale Jeunesse* (preface by Sully-Prudhomme); *Paysages et Paysans*, by M. Rollinat ("the singer of rural splendors, of extravagances and terrors"; his poems "smell of the heather"); Phocas le Jardinier, delicate *vers libres* by the Franco-American Francis Viéle-Griffin ("of all French poets of the present day the poet who is most truly French"), published by the Société du Mercure de France (the Mercure, founded in 1672, being now "the exponent of all that is modern in thought and art"); Richepin's *La Bombarde* (*chansons*); E. de Chaillac's *Vers de Bohème*; R. de Montesquiou's *Les Perles rouges*: 93 Sonnets historiques; and André Magre's *Poèmes de la Solitude*. The first complete edition of Stéphane Mallarmé's poems has been published in Brussels. *Les Années funestes*, by Victor Hugo—manuscript verses gathered by his executors—are said to show "all his faults without any of his great qualities." In dramatic literature some successes—financial, literary, or both—and various praiseworthy works are noted: Henri Lavedan's *Le Vieux Marcheur* (refined and graceful derision of contemporary follies); Le Berceau (a "tendency drama" against divorce; rather didactic), by Brieux, who does not follow beaten paths; M. de Curel's *Nouvelle Idole* (also a play with an idea; author's talent described as rich, forceful, and bold); Mauric Donnay's *Le Torrent* ("first two acts entertaining; the rest wearisome and weak"); and Gergette Lemeunier ("powers of mocking fancy"; delightful digressions); Jean Richepin's *Les Truands* (has a certain brilliancy); G. Ancey's *L'Avenir* (bitterly pessimistic); F. Vandérem's *Le Calice*; Pierre Loti's *Judith Renaudin* ("beautiful details," "scenes of intimate poetry"); Paul Meurice's *Struensée* (a return to the romantic drama as exemplified by Hugo); the historical dramas *Plus que Reine* (the story of the Empress Josephine), by E. Bergerat; *Le Roi de Rome* (introducing Napoleon's son), by Pouvillon; *Mme. De Lavalette*, by E. Moreau; and the newcomer Romain Rolland's *Le Triomphe de la Raison* ("strongly influenced by Renan and Taine"; "well received"). J. Aicard has adapted Shakespeare's *Othello*.

The *White Terror*, by Félix Gras, finishes the trilogy of the French Revolution, *The Reds of the Midi* and *The Terror* having preceded it.

Germany.—Works on various phases of the country's history include *Hohenzollern-Jahrbuch*: *Forschungen und Abbildungen zur Geschichte der Hohenzollern in Brandenburg-Preussen*, Herausgegeben von Paul Seidel; *Zweiter Jahrgang*, 1898; M. v. Poschinger's *Kaiser Friedrich. In neuer quellenmässiger Darstellung*; H. Pigge's *Die religiöse Toleranz Friedrichs des Grossen nach ihrer theoretischen und praktischen Seite* (a thorough study, which considers also in detail the king's treatment of the Roman Catholic Church in Silesia); Julius Dieffenbacher's succinct description of *Deutsches Leben im 12. Jahrhundert*; and M. Bär's *Die deutsche Flotte von 1848-1852*. To Bismarck are devoted Hans Blum's *Fürst Bismarck und seine Zeit* (Vol. VII); *Tagebuchblätter*, by Moritz Busch; Ernst Schweininger's *Dem Andenken Bismarck's: zum 1 April, 1899*; and an interesting collection of caricatures, *Bismarck in der Karikatur*, with text by K. Walther. Further titles in history are Alfr. Dove's *Ausgewählte Schriftchen vornehmlich historischen Inhalts*; Hs. Kraemer's *Das XIX. Jahrhundert in Wort und Bild*; *Politische- und Kulturgeschichte*; P. D. Fischer's valuable and readable *Italien und die Italiener am Schlusse des 19. Jahr-*

hunderts: *Betrachtungen und Studien über die politischen, wirtschaftlichen und sozialen Zustände Italiens* (comprehensive and concise); and *Süd-Amerika*, unter besonderer Berücksichtigung Argentinien's, Nach den neuesten amtlichen Quellen und auf Grund eigener Anschauung (trustworthy), by P. Märtens. What was once the "Dark Continent" is illustrated in A. Boshart's *Zehn Jahre afrikanischen Lebens*; E. Donat's *Kreuz und Quer durch Süd-Afrika*: *Reiseskizzen und Bilder*; K. Dove's *Vom Kap zum Nil*: *Reiseerinnerungen aus Süd-, Ost-, und Nordafrika*; Ed. Wickenburg's *Wanderungen in Ost-Afrika*; K. Schwabe's *Mit Schwert und Pflug in Deutsch-Südwestafrika*; and A. Seidel's *Transvaal, die südafrikanische Republik, historisch, geographisch, politisch, wirtschaftlich dargestellt*—all published in 1898. The East is the subject of Rudolph Lindau's *Zwei Reisen in der Türkei* and E. v. Hesse-Wartegg's *Schantung und Deutsch-China*: *Von Kiautschou ins Heilige Land von China und vom Jangtsekiang nach Peking im Jahre 1898*. Noteworthy contributions to biographical and memoir literature are J. Friedrich's *Ignaz von Döllinger: sein Leben auf Grund seines schriftlichen Nachlasses dargestellt* (gives a "clear conception of the environment in which the young man grew up," and furnishes a "valuable contribution to the intellectual history of Germany"); Rudolf von Gottschall's *Aus meiner Jugend. Erinnerungen* (sympathetic; interesting character portraits of contemporaries); Malwida v. Meysenbug's *Der Lebensabend einer Idealistin: Nachtrag zu den Memoiren einer Idealistin* (shows a youthful freshness unusual in an octogenarian); and Andreas Moser's interesting *Joseph Joachim, ein Lebensbild*. P. Horn's *Die deutsche Soldatensprache* is a useful collection of colloquial phrases and terms peculiar to the German soldier. T. Ziegler characterizes *Die geistigen und sozialen Strömungen des 19. Jahrhunderts*. *Die Botschaft des Czars*, by the Austrian Freiherr von Sacken, is a plea for "no disarmament, but an ennobling reform of the defensive and military system." Trusts are studied by L. Pohle in *Die Kartelle der gewerblichen Unternehmer*. E. v. Hartmann has published Vol. I of his *Geschichte der Metaphysik*. E. Haeckel, in *Die Welträthsel: Gemeinverständliche Studien über monistische Philosophie*, offers the result of his philosophical studies. Of Heinrich Brunn's *Kleine Schriften, gesammelt von Hermann Brunn und Heinrich Bulle*, a number are published, as originally written, in Italian. B. Riehl's *Die Kunst an der Brennerstrasse* (1898) deals with the art of Tyrol. Material worthy of note in the field of literary history and criticism includes T. A. Fischer's *Leben und Werke Alfred Lord Tennysons*; Richard Weltrich's *Christian Wagner, der Bauer und Dichter zu Warmbronn: Eine ästhetisch-kritische und sozial-ethische Studie*; Klaus Groth: zu seinem 80. Geburtstag, by Adolf Bartels (exhaustive characterization) and Klaus Groth: *sein Leben und seine Werke*, by H. Siercks (fuller, less critical), both issued on occasion of the eightieth birthday of the Plattdeutsch poet, who died since then; N. Welter's comprehensive and sympathetic *Frederi Mistral, der Dichter der Provence* (discusses also the politico-literary importance of the Félibrige). Arthur Möller-Bruck's *Moderne Literatur in Gruppen- und Einzeldarstellungen und Präludien*, by Franz Servaes, are two noteworthy contributions to the history of modern German literature; A. Bettelheim's *Acta diurna: Gesammelte Aufsätze; neue Folge* ("give a fresh sense of the great wealth of literary talent and earnest spiritual endeavor stored up in

contemporary German life"); and Beiträge zur amerikanischen Litteratur- und Kulturgeschichte (1898), by E. P. Evans (written in clear, idiomatic German, and with an American's knowledge of the subject). Goethe literature has been increased by an Anderweite Folge of W. v. Biedermann, noteworthy Goethe-Forschungen; Felicie Ewart's Goethe's Vater: Eine Studie ("well meant; well written"); And. Fischer's Goethe und Napoleon; Ueber das Pathologische bei Goethe, by P. J. Möbius, a noted neuropath; and other monographs. The problems of the modern stage are discussed in Hans Sittenberger's Studien zur Dramaturgie der Gegenwart; Erste Reihe: Das dramatische Schaffen in Oesterreich (thorough, clear, and interesting); E. Zobel's Zur modernen Dramaturgie: Studien und Kritiken über das ausländische Theater (best in characterization of actors); Edgar Steiger's delicately appreciative but rather enthusiastic Das Werden des neuen Dramas; and Max Banner's Das französische Theater der Gegenwart (a trustworthy guide). In Das litterarische München, both portraits and text are by Paul Heyse. J. v. Widmann gives charming descriptions of travel in Sommerwanderungen und Winterfahrten.

The long list of fiction proves much activity on the part of the older writers, from whom we have Das Wanderbuch, a dramatic story, by the late Georg Ebers; the late Theo. Fontane's Der Stechlin (product of a ripe mind of unimpaired power; a picture of the author's beloved Brandenburg; almost no action, but "a book of the most intimate charm"); F. Spielhagen's Herrin (story of an emancipated Jewess, who strives for business and social success; the author's strongest novel, according to some; not equal to his best, according to others); Der Sohn seines Vaters und andere Novellen (not remarkable), by Paul Heyse (a subtle psychologist in the solution of his always interesting problems; maintains his dignity even when dealing with equivocal subjects); A. Wilbrandt's Vater Robinson (characterization excellent, as always; somewhat unlikely story, but well invented; didactic) and Der Sänger; W. Raabe's Hastenbeck (story of the Seven Years' War; signs of decreasing power, though the old humor and "joy in pure hearts" are still there); Wilhelm Jensen's Die Sehnsucht: Drei Novellen (remarkable inventiveness, wealth of moods; among author's best works), Eine Sommermondnacht, and Luv und See ("mood pictures" of the sea); E. Eckstein's not remarkable Die Klosterschülerin; Roman aus der Gegenwart; J. Wolff's Der Landsknecht von Cochem; E. Wichert's Vom alten Schlage (1898; old school; healthy; not exactly important); and P. Rosegger's charmingly fresh Idyllen aus einer untergehenden Welt. Further novels and short stories which have been more or less favorably received by the critical journals of Germany are Anton v. Perfall's Die Sonne (second edition; conventional, but effective through skillful construction and a certain *verve* in writing) and Das Goldherz; Arthur Schnitzler's Die Frau des Weisen: Novelletten; Paul Lindau's Agent (thrilling account of a criminal case; of no literary importance); G. v. Ompeda's Philister über dir! Das Leiden eines Künstlers; Gährungen: Aus dem Leben unserer Zeit, by F. Servaes (good modern observative art; striving after special expression often results in a wretched mannerism); Montblanc, by R. Stratz (sensational; lively description); Adalbert Meinhardt's Still-Leben ("atmosphere of hallowed meditation"); L. Jacobowski's Loki. Roman eines Gottes (fantastic fairy tale; one of the best works of re-

cent times; mature); Wald: Novelle (second edition), by W. v. Polenz (strong effect without modern *raffinement*); Karen: Eine Sylter Geschichte, by G. Mengs (plain, unconventional); Das Fräulein von Villanders: Roman aus der Zeit des Erzherzogs Ferdinand II, by Arthur von Rodank (pseudonym of Count Arthur von Wolkenstein-Rodenegg), who writes not without talent, but in a certain light, dashing manner; Rainer Marie Rilke's Am Leben hin (in a gray and chilly light); Marco Brociner's Der neue Glaube; Baron Karl Torresani's Steirische Schlösser (author more serious than usual); O. v. Leitgeb's Psyche (fine, clear, and truthful psychological delineation); A. v. Klinckowström's clever Verlorene Liebesmuth (Berlin local color); Franz Ferdinand Heitmüller's Tampete: Novellen (realistic delineation coupled with tender poetic feeling); Walther Siegfried's Um der Heimath Willen: Novelle (author abandons the standard of most modern art for the older methods of Keller); R. Bredenbrücker's Keine Sommer ohne Wetter und Warm der Hauser der Waebi nimmer zugeht (dialect; genial humor; bright); Novellen vom Genfer See, by C. E. Ries; Pater Maternus, by A. Hausrath (George Taylor); and the usual group of productions by women: Lou Andreas-Salomé's Fe-nitschka: eine Ausschweifung, und Menschenkinder (fine psychological analysis, especially of female characters); Halbtier, by H. Böhlau (Frau al Raschid Bey, an original intellect, who apparently harms the cause of woman by her immature style and exaggeration); Die Schuldnerin, by Ida Boy-Ed, who belongs to those who represent, "if not the most artistically valuable, yet, on the whole, the most satisfactory result of the new literary movement"; Ilse Frapan's Die Betrogenen (strong, but never offending realism), and Wir Frauen haben kein Vaterland (simple, pathetic story of a woman student); Goswina von Berlepsch's Bergvolk: Novellen (fresh and natural) and Heimat: schweizer Novellen; A. v. Gersdorff's Von Todes Gnaden ("smoothly and skillfully written"); Clara Viebig's Es lebe die Kunst (a "pure and pleasurable union of idea and realism"); A. G. v. Suttner's Die Tscherkessen (characters well drawn, action stirring); Bernhardine Schulze-Schmidt's Eisener Zeit: Eine Familiengeschichte aus den Befreiungskriegen ("a good family novel"); Elisabeth Gnade's Sarkoschin (a promising *début*); Marie Janitschek's Kreuzfahrer (mystical, sad); Hedwig Dohm's Schicksale einer Seele (in the service of the emancipation of woman); Emma v. Egidy's Marie-Elise (praised by W. v. Polenz; tiresome, according to Megede); Louise Schenck's Moderne Romfahrt (truth and fiction; "thin and pale"); Marie zur Megede's Liebe: Novellen (plain language, easy progress of action); and Elisabeth Dauthendey's Im Lebensdrange (a first appearance; well-told story; pictures with the warmth of life). And a few more works by authors with familiar names, selected from the lengthy records: Max Kretzer's Verbundene Augen; Jos. Joachim's Der Herrenbauer: eine schweizerische Dorfgeschichte; C. v. Dincklage's Die Erbtöchter und andere Novellen; W. Fischer's Grazer Novellen; W. Berger's Von Glück und Leid; Die Stärkere, by Hs. v. Zobeltitz; Alex Römer's Am Ziele, and new works by S. Junghans, Hm. Heiberg, H. Hoffmann, H. Schobert, K. Telmann, and A. Zapp. There is not much poetry to speak of; a tendency toward eccentricity is noticeable, and work of the first order seems rare. Mention is deserved by Friedrich Adler's Neue Gedichte (sympathetic; outpouring of a feeling heart); K. Fiescher's Das Balderspiel: Ein deutscher Weihgesang (good

introduction to Germanic mythology, not without value poetically); Anna Ritter's *Gedichte* ("modestly sensual, yet womanly and healthy in tone"); M. G. Conrad's *Salve Regina*: lyrischer Cyklus (author more "fighter than poet"; the most pleasing poems are those on family and fatherland); Phantasus, by Arno Holz (a former materialist, now among the idealists, preaching the "new romanticism, . . . that of the nerves"); *Leuchtende Tage*: Neue Gedichte, by Ludwig Jacobowski, a sympathetic personality, of healthy development (Holz and Jacobowski, once collaborators, are the "theoretical founders of German naturalism"); Hans Benzmann's *Sommersonnenglück* (a treasure of "delicately individualized nature mood"); Karl Henckell's *Gedichte* (still some superfluous pathos, but a healthy foundation; nothing decadent, weak, or artificial); J. H. Mackay's *Gesammelte Dichtungen* (poems of life, mirroring the doubts and wishes of modern man); *Hymnen—Pilgerfahrten—Algabal*, *Bücher der Hirten*, and *Jahr der Seele*, three little volumes by Stefan George (an interesting newcomer, a symbolist, who "deals with impressions of the soul"; artistic and artificial); Ferdinand von Saar's *Nachklänge* (poems and short stories); and some further poetry by beginners: W. E. Ernst's *Gedichte*, E. Berger's *Lieder des Lebens und der Liebe*, and M. v. Biehler-Buchensee's *Lebensklänge* (all 1898). A "deepening influence" is felt in German literature; the slavish copying of nature is being abandoned. A tendency toward more subjective treatment is, we are told, shown in plays such as Sudermann's *Die drei Reiherfedern*. This "fairy play" has been much criticised; it is the story of a moral visionary with a fictitious ideal which he seeks, losing the good that is near at hand. It shows "a certain forced grandeur in the heroic parts and an equally forced vulgarity in the subordinate figures." The author's symbolism is vague; nevertheless, the play "testifies to the deepening of his art." The record of the drama furthermore includes four one-act plays: *Die Frage an das Schicksal* ("too much theoretical disquisition and the fact that the principal scenes are played mutely caused the public to remain cold"), *Der grüne Kakadu* ("a fantastic caprice"), *Paracelsus* (rather uninteresting), and *Die Gefährtin* (delicate mood painting), by Arthur Schnitzler, who here abandons realism for "vague ideas of hypnosis and cabalism"; *Die Frau im Fenster—Die Hochzeit der Sobede—Der Abenteurer und die Sängerin*: Theater in Versen (dramatic structure lacking; good character drawing; "a riot in moods"; fine style), by Hugo von Hoffmannsthal, a disciple of art for art's sake, with a touch of the decadent; Joh. Schlaf's drama, *Die Feindlichen* (tragic development mainly indicated by mute play); L. Fulda's *Jugendfreunde*; Max Halbe's *Die Heimatlosen* (faithful to life); Georg Hirschfeld's *Pauline* (a "kitchen comedy"; farcical beginning, sociological speculations at the end); Max Dreyer's *Hans* (lifelike picture of a studious woman softened by love) and the one-act plays *Unter blonden Bestien* and *Liebestrüme*, both showing much healthy humor; E. v. Wildenbruch's historical tragedy *Gewitternacht* (disappointing and queer mixture of intrigue of the French school and patriotic drama; an attempt to unite historic foundation and the modern spirit); Martin Greif's *General York*: *Vaterländisches Schauspiel* ("passable"); O. E. Hartleben's *Die Befreiten*: Ein Einakter-Cyklus (four one-act plays—*Die Lore*, *Die sittliche Forderung*, *Abschied vom Regiment*, *Der Fremde*; the theme, liberation from Philistinism and the

right of individuality, is not very earnestly attacked) and *Die Erziehung zur Ehe* (pleasing and witty dialogue can not conceal faults; caricature rather than satire); *Das liebe Ich*, by Karlweiss (mixture of Raimund and Anzengruber; excess of moral "tendency"); Andreas Bockholdt (1898), an unsuccessful tragedy, by W. v. Polen; Josef Lauff's historical drama *Der Eisenzahn* (scene laid in Berlin, 1447); Hermann Bahr's comedy *Der Star* (dramatic force lost in virtuose but all too detailed delineation of secondary matters and of varying moods; author has talent, but has changed his manner with every new wind that blew in the literary atmosphere); F. v. Hindersin's *Wuotans Ende* (epic spirit outweighs the dramatic; free-thought tendency); R. Skowronnek's No. 17, a three-act village comedy (pseudo-realism); Richard Landsberger's drama *Pflicht* (places the ego above the public weal; not convincing); Anton von Perfall's *Die Krone* ("fairy drama"; laughed at and hissed at the Royal Theater of Berlin as aiming at the protection of those of "divine right," instead of striving for the applause of true friends of art); *Der junge Fritz* (a mediocre "Hohenzoller" play; forbidden by the censor), by Franz Baier (pseudonym of the actor Ferdinand Bonn); Hugo Lubliner's comedy *Das fünfte Rad* (only halfway successful); Stefan Vacano's *Mutterherz* (unsuccessful); Friedrich Fürst Wrede's *Recht auf sich selbst* (rejected by the public); H. Eulenberg's tragedy *Dogenglück* ("Shakespeare run wild"); and the usual batch of ephemera, mostly farcical, such as *Auf Strafurlaub*, by G. v. Moser and T. v. Trotha; *Mädel als Rekrut*, farce, by Kraatz and Strobitzler (piquant, improbable, and laughable); the comedy *Renaissance*, by F. v. Schönthan and Koppel-Elfeld (a graceful bit of play; no depth); *Busch und Reisenbach* (the usual wild hodgepodge of ludicrous situations), by Heinrich Lee and Wilhelm Meyer-Förster; *Als ich wiederkam . . .* (continuation of *Im Weissen Rössl*), by Blumenthal and Kadelburg; and *Die neue Richtung*, a poor farce, by Marco Brociner and Alexander Engel.

In Plattdeutsch literature we have Felix Stillfried's novel *De unverhoffte Arwtschaft*; and, as a local production, *He gut Württemberg allewege! Ein litterarisches Jahrbuch aus Schwaben* (Vol. I, 1898) is also noted.

Interesting news comes from Alsace, especially in an article by F. Curtius (*Deutsche Rundschau*, July, 1899). Political conditions and fear of material loss attending a free expression of opinion make it difficult to determine in how far the Alsatians have become Germans. The best index to the soul of the people is the nonpolitical literature. It is a pleasing symptom that poetic production has begun again, after having been silenced by the guns of the victor. This production finds expression in that dialect which survived the French period. The new Alsatian theater in Strassburg met with a success which proves that the new movement is on the right road. The most noteworthy dramatic products of this direction are G. Stoskopf's comedy *Der Herr Maire* (1898; satire on the peasantry; friendly to the French) and *Der Pfingstmondää vun hitt ze Dää*: *dramatisches Culturbild aus dem Elsass vom Ende des 19. Jahrhunderts* (lifelike picture of the process of fermentation which Alsatian society is undergoing), by Heinrich Schneegans. The latter is especially of political (or *culturgeschichtlich*) interest. It borrows its title from the Pfingstmontag of Arnold, the masterpiece of Alsatian dialect literature. Fritz Lienhard (who does not share the enthusiasm of Cur-

tius) finds a particularistic tendency in this adoption of a "neutral tongue" (a forced mixture of French and German) as a literary language, and criticises *Der Herr Maire* as not very remarkable. His own *Lieder eines Elässers* (second edition, 1897-'98) and *Wasgaufarten* (second edition, 1897) show richly colored descriptions of nature and deep feeling. Lucie and Jungfer Prinzesse, by Julius Greber, president of this Strassburg theater, are noted as the ripest fruits of the productions of "young Alsace."

Finally, two German-American productions may be referred to: Th. Kirchhoff's *Hermann, Ein Auswanderer-Leben: Episch-lyrische Dichtung* (an interesting attempt to depict the life of a German emigrant) and *Abendglocken*, narrative poetry mostly of American subjects, by Kara Giorg (pseudonym for Gustav Brühl).

Holland (Flemish authors under Belgium).—Among the books occasioned by the Queen's coronation, *Een halve Eeuw* (by various contributors) is perhaps most noteworthy. P. L. Muller's notable popular history, *Onze gouden Eeuw: De Republiek der vereenigde Nederlanden in haar Bloeitijd geschiedt*, is completed with Vol. III, and Part I of *Ons Vaderland, 1849-'98*, by G. F. J. Douwes, has appeared. H. A. Pareau's description of a trip to *Onze West* is "pleasant reading," but marked by unwarranted optimism. A. Sloos offers a little work on *De Nederlanders in de Philippijnsche Wateren vóór 1626* (1898), and Dutch ventures in another land are dealt with in two South African publications, J. F. van Oordt's *Paul Kruger en de Opkomst der Zuid-Afrikaansche Republiek* (Kaapstad, 1898) and J. A. Wormser's *Van Amsterdam naar Pretoria* (Pretoria, 1898). In travel we have *Spanje: Een Reisverhaal*, by J. Israëls. J. Prinsen's *Gerardus Geldenhauer Noviomagus: Bijdrage tot de Kennis van zijn Leven en Werken* is praised as a valuable contribution to the history of the Reformation. Prof. Bolland, who in the essays *Rome en de Geschiedenis* and *Petrus en Rome* argued scientifically against the Pope's rulership and infallibility, was attacked with bitter invective and abuse by Dr. Schaepman in *Bolland en Petrus*, and replied in *Oude Gegevens*. There has appeared a second part of the new translation of *Lao Tsze*, by H. Borel, whose *Studiën* are rather superficial. The woman question is dealt with in Mrs. Goekoop's *Hilda van Suylenburg* (fifth edition); *Het Feminisme* (a plea for the home), by S. R. Steinmetz; *Anna de Savornin Lohman's De Liefde inde Vrouwenquaestie* (a passionate insistence on the sexual impulse); and *De Liefde in het Vrouwenleven* (traces the influence of social progress), by Cornélie Huygens. The Amsterdam Exhibition has occasioned C. L. van Balen's *Rembrandt, zijn Leven en Werken* (1898; a "handy little monograph"). Literary criticism includes *Jan ten Brink's Franche Studiën* (1898; French authors and their works); M. Poelhekke's character studies of the Modernen (i.e., Kloos, Verlaine, Strindberg, Jörgensen); A. G. van Hamel's *Het letterkundig Leven van Frankrijk* ("erudite and entertaining"); Byvanck's careful study of the late Prof. Fruin; and J. van den Oude's *Litterarische Interludiën*. Vol. IV has appeared of *Verzamelde Opstellen*, by L. van Deyssel, who "enriched Dutch literature with passages of imperishable beauty and worked a revolution which will have a lasting effect." The leaders of modern literature have been violently attacked in a novel (Vincent Haman, 1898) by W. Paap, who, we are told, deals in a "venomous invective" rather unfamiliar in Dutch criticism. He upbraids the men of 1880 for producing trans-

lations instead of original work (in which reproach there seems to be some truth), and finds the generation of 1890 no better. The very youngest in the literary life join in this contempt for modern Dutch literature, yet they themselves are charged chiefly with weak imitation. Is. Querido's *Meditatiën over Literatuur en Leven* is described as a "clever defense of sentiment in opposition to intellect," but written in poor language and inaccurate metaphors. Emants and Couperus, with *Nagelaten Bekentenissen* and *Noodlot*, find imitators, it appears, in E. S., author of *Stille Wegen* (painful self-analysis), *Parvus* (Fataliteit), and J. Eigenhuis's *Eenvoudige Zielen*. The older romantic writers are apparently arousing renewed interest in the public; at least they are being republished. H. J. Schimmel has tried to be more modern in *Het Zondekind*. The late G. Keller's *Haar Buurman* (1898) lacked the spirit of his successful work. Dr. van den Bergh van Eysinga's *Book van Toevertrouwen* is an "elaborate specimen of lyric prose," of hope and faith, under "strong biblical influences." Of poetry, V. van Eden's *Enkele Verzen* ("sparkling with life"), A. Verwey's *De nieuwe Tuin* (sound, earnest, even gloomy), G. C. van 't Hoog's *Geluk* (rich in color, though at times somewhat labored), and Miss Jeanne Reyneke van Stuwé's *Impressions* (simple expression of sentiment) are noted. The play *The Ghetto*, by Herman Heyermans, Jr., is described as a fine bit of Jewish life, literary rather than dramatic, and marred only by the introduction of "certain crude philosophic and religious theories." Further additions to *belles-lettres* are *Kamertjeszonden* (a coarsely realistic picture of intellectual pauperism), by H. Heyermans, Jr.; F. van Eeden's *De kleine Johannes*; C. P. Brandt van Doorne's *Mathilde*; L. H. J. Lamberts Hurrelbrinck's *Uit de Limburgsche Ardennen*; J. Reyneke van Stuwé's *De Heer van de State*; J. ten Brink's *Brechtje Spiegheles: Eene Novelle uit de Geschiedenis der nederlandsche Letteren*; C. Busken Huet's *Robert Bruce's Leeren*; C. Buyase's *Schoppenboer* and *Uit Vlaanderen*; *Zijn Pleegkinderen*, by H. T. Chappuis; and *Vorstin en Martelares*, by L. Stratenus.

Hungary.—Historical works of importance are the tenth and last volume of the late S. Szilágyi's monumental *History of the Magyar Nation*, written by S. Márki and G. Bekscics; *History of Democracy* (Vol. IV), by G. Schvarcz (an original thinker, directly opposed to Mommsen and other writers on the history of Rome); the *Great Illustrated History of the World*, by eminent writers under the editorship of H. Marczali (to be complete in twelve volumes); and Vol. VI of the late L. Kossuth's works, edited by his son. Interesting and useful economic and sociological works are Gaál's *System of Political Economy*; *Encyclopædia of Economics*, edited by G. Mandello; and Rustem Vámbéry's *Foreign Laws relating to Conditional Sentences*. Several important books on art have appeared: A. Berzevichy's *Italia* (descriptions of the scenes of the triumphs of the Renaissance; masterly style, clear judgments); *Art Reform*, by J. Hock (who strives to bring art before the masses, and is identified with the *Nemzeti Szalon*, the "headquarters of æsthetic young Hungary"); *Hungarian Art Treasures* (to be completed in five volumes), sumptuous folios edited by E. de Radisics, director of the National Museum of Industrial Art, with a preface by Jókai; and T. Szana's *János Janko's Life and Work*, an able monograph on a popular caricaturist. Joseph Bayer won a prize from the Academy of Sciences with his valuable *History of Hungarian Dramatic Literature up to 1867*;

Dénes Szűry's *Dramatic Impressions* deals with Shakespeare, Sardou, Dumas, Duse, etc.; and Albert Popipi's study of Byron and Shelley is criticised as readable but inadequate. There is not much fiction of special excellence to record. F. Herczeg's *Story of a Girl* shows his usual characteristics—taste, a smooth style, sarcasm, and good though not thorough characterization; S. Bródy's *The Silver Goat* is praised as his ripest production and one of the best novels of recent years; the author here, we are told, abandons naturalism for realism, and offers a richly colored description of contemporary life in Buda-Pesth. I. Szomaházy's *Uneven Wednesdays* is a propitious *début* in novel writing, and A. Berczik's short stories, *Autumn Hunting*, are as gay, observant, amiable, clever, and amusing as his comedies. There are three poetical productions of note: Verses (mild melancholy; subdued colors), by Dezső Ambrozovics; A. Radó's *Songs and Stories* ("gentle moods," quiet content, warmth with a touch of sarcasm); and E. Makai's *Recent Poems* ("deep sentiment and elegant versification"). Among the plays of the year is noted especially A. Berczik's *Himfy's Songs*, a "charming literary comedy of the best type," the hero of which is S. Kisfaludy, the noted author of the "songs" which give the play its name. F. Herczeg's comedy, dramatized from his novel *The Daughters of Gyurkovics*, was well received; his drama *The First Storm* is said to lack depth. Jókai's historical dramas *Black Blood and Levente*, though romantic and patriotic, were unsuccessful, "probably because Jókai's *genre*, despite his enormous personal popularity, is deemed to be a trifle out of date."

Italy.—Various periods and phases of national history form the themes of Da Bonifazio VIII ad Arrigo VII (a dramatic account of Florentine history), by Prof. del Lungo; A. Gherardi's interesting *Consulte della Repubblica Fiorentina* ("scientific method and exemplary diligence"); Niccolò Rodolico's *Dal Comune alla Signoria: Saggia sul Governo di Taddeo Pepoli in Bologna* (1898); Lucio Fiorentini's *Le dieci Giornate di Brescia del 1849* (accurate; fills in some lacunae); Ant. Ugoletti's *Brescia nella Rivoluzione del 1848-49*; E. Bottini Massa's *La Sicilia nel 1848*; A. Maurici's *L'Indipendenza siciliana e la Poesia patriottica dell' Isola dal 1820 al 1848* (1898); *Bibliografia storica delle Cinque Giornate e degli Avvenimenti politico-militari in Lombardia nel 1848*, by Antonio Vismara (1898); F. Bertolini's *Storia del Risorgimento italiano*; N. Colajanni's *L'Italia nel 1898: Tumulti e Reazione* (1898); and the lectures on *La Vita Italiana*, which have been delivered in Florence during the last decade by the most famous authors of the country—Carducci, Villari, Serio, del Lungo, Rovetta, and many others. Among historical and descriptive works on other lands are A. Lumbroso's *Miscelanea Napoleonica*, (serie 5, 1898); *La Camicia rossa nella guerra greco-turca del 1897*, with preface by Ricciotti Garibaldi (curious and interesting account of the Italian expedition); *Fra Turchi e Arabi*, by Sandro (pseudonym), an animated and faithful picture; *In Terra Santa*, by A. de Gubernatis; G. Fano's *Il Viaggio d'un Fisiologo intorno al Mondo*; Mario Borsa's *Verso il Sole di Mezzanotte*; *L'Omo—Seconda Spedizione Böttger: Viaggio di Esplorazione nell' Africa orientale*, by L. Vannutelli and C. Citeri ("complete account of an exploration which constitutes a glory for our country," says an Italian critic); and Ugo Ojetti's *L'America vittoriosa* (description of the United States, with the story of the late war). Pt. Bertolino considers *Il Governo*

locale inglese e le sue Relazioni con la Vita nazionale. Of monographs on individuals we have Enrico Zanoni's *Carlo Cattaneo nella Vita e nelle Opere* (1898); Giacomo Dina e l'Opera sua (Vol. II), edited by L. Chiala; and E. Masi's abridgment of the curious memoirs of Ferdinando Ranalli, a linguistic purist. There have been many commemorations in recent years: Vespucci, Paolo Toscanelli, Savonarola, Leopardi, Moretto da Brescia, and Bernini have been thus honored in celebrations, with the usual attendant stream of orations and biographical and critical monographs. Here, as in the congratulatory offerings published on the occasion of weddings, the usual poetry of former days has been superseded to a great extent by learned monographs, which frequently show a pedantic and tiresome erudition without a touch of genius. The noteworthy products of these celebrations include for 1898-99: For Vespucci, an *édition de luxe* of A. M. Bandini's *Life of Amerigo Vespucci*, with notes and additions by G. Uzielli; for Savonarola, the *Cronaca di Filipepi*, the brother of Alessandro Botticelli, an important document; for Leopardi, the *Pensieri inediti di G. Leopardi* (Vols. I-III; show "the whole development of the poet's mind," the "raw material" of his work; of "inestimable value"), Fr. Ridella's *Una Sventura postuma di Giacomo Leopardi*. P. Puglisi's *Giacomo Leopardi* (a psychological study; tends to lessen Leopardi's philological fame), a large part of M. L. Patrizi's *Nell' Estetica e nella Scienza*, orations by G. Mestica and A. d'Ancona, and V. Spezioli's *Guide to Recanati*; and for Moretto da Brescia, a good monograph on the artist by P. Molmenti. Study and republication of old authors goes on, as witness *Le Rime di Francesco Petrarca*, . . . commentate da G. Carducci e S. Ferrari (the result of thirty years' study by Carducci); G. Lisis's edition of *Machiavelli's Principe*; E. Solmi's selection from *Lionardo's* prose writings; a fine edition of the *Promessi Sposi*, illustrated by Previati. Dante literature has been increased by *Con Dante e per Dante: Discorsi a Conferenze tenute a Cura del Comitato Milanese della Società Dantesca Italiana* (1898); Vol. IV of *Codice diplomatico Dantesco*, by G. L. Passerini; and G. Biagi's and Pio Rajna's masterly edition of the *De Vulgari Eloquentia* (won the philological prize of the Accademia dei Lincei). The Florentine committee of the Società Dantesca Italiana has revived the reading and commenting of the *Divine Comedy*, originally begun by Boccaccio (it appears that public readings and lectures are increasing in favor as media for the dissemination of culture). There are also such serials as the *Biblioteca Storico-critica della Letteratura Dantesca* (directed by G. L. Passerini and L. Papa), *Passerini's Giornale Dantesco*, and the excellent *Bullettino della Società Dantesca Italiana*, edited by Barbi. Good minor studies of various phases in literature appear in the *Biblioteca critica della Letteratura italiana* (directed by F. Torraca), the *Giornale storico della Letteratura italiana* (edited by F. Novati and R. Renier), the familiar *Archivio storico italiano*, and numerous other historical reviews. Other works on literary topics are F. Squillace's *Le Tendenze presenti della Letteratura italiana* ("scientific-literary criticism"; physiological and psychological aspects well considered); Arturo Graf's *Foscolo*, Manzoni, Leopardi, Saggi, aggiuntovi *Preraffaeliti*, *Simbolisti ed Esteti e Letteratura dell' Avvenire* (1898; essays; sympathetic, appreciative); Gerardo Hauptmann e l'Opera sua letteraria, by Ces. de Lollis; Giulio Pisa's fine *Studi letterari di Leonardo da Vinci, Stendhal, Whitman, Dide-*

rot, and others; and A. L. Paternostro's *Soqui . . . veri* (protest against ultra-modern novelists). E. G. Zoccoli's *Federico Nietzsche: La Filosofia religiosa—La Morale—L'Estetica* (1898) is a considerable study of sources; Nietzsche's relations with Wagner are dealt with specially in detail. Classical studies are assiduously pursued. There are G. Vitelli and G. Mazzoni's excellent *Manual of Greek and Latin Literature*; good translations of *The Knights of Aristophanes* (by A. Franchetti) and the *Hymns of Bacchylides* (in prose, by N. Festa); Giussani's studies on *Epicurus*; and a new periodical, *Atene e Roma*, published by the *Società Italiana per gli Studii Classici*. *Vox Urbis* is a new periodical, entirely in Latin, published at Rome. Art literature has been enriched by A. Venturi's iconographic study of *La Madonna* and G. Magherini-Graziani's *L'Arte a Città di Castello*.

Of fiction that is noteworthy or signed by familiar names we find A. G. Barrili's *Raggio di Dio* (last of the five novels of the Columbus cycle) and *Sorridi di Gioventù*; *La Carrozza di Tutti*, by E. de Amicis (sketches of life in the public conveyance); E. Castelnovo's *I Coniugi Varedo* (a simple story, true, without phrase or pathos) and *Natalia ed altri Racconti*; *Capuana's Il Braccioletto: Novelle* (1898; concise; naturalistic); Marchese F. Nobili Vitelleschi's *La Roma che se ne va* ("interesting and vivid picture of Roman society about 1870"); E. A. Maresciotti's *Arturo Dalgas* (fifth edition; not remarkable, though psychologically interesting) and *Clara Albiati* (a sultry orgie of sensuality; the participants psychologically explained); A. Panzini's *Moglie nuova* (offers little new in the woman question); A. Albertazzi's *Ora e sempre* (marital infelicity; dramatic material skillfully handled); Edoardo Calandra's *La Bufara*; and *Tullio Giordana's Le Greche* (three graceful and delicate stories of the Græco-Turkish War). We are told that, as on the stage, so in fiction, French influence and fashion vitiate literature; the novel of adultery is much cultivated even by the increasing number of women writers. Verse worth noting is found in A. Orvieto's *Sposa Mystica* and *The Veil of Maia* (favorably received); A. Baccelli's *L'Iride Umana*; In Umbra, by Giovanni Cena, a new poet, original and sincere, of no school (shows strong feeling, vivid imagination); Ugo Fritelli's *Primule* (graceful); and Enrico Giacobini's *Tempre* (delicacy and fine elaboration). The drama of the year includes *Sogno d'un Mattino di Primavera*, *Sogno d'una Notta d'Autunno*, *Gioconda: Tragedia* (melancholy, unpleasant, highly poetical language, fine description of scenery, says a German critic; "imperfections, due to inexperience, . . . but what poetry! what a wave of passion!" a noble attempt to replace grotesque realism by "fresh and fragrant poetry," says an Italian writer), *La Gloria: Tragedia* (declined by the public; symbolic, introducing "glory" in the extreme potentiality of a demoniac force; lacks "definite personages, definite action, and definite time"; a *spirituel* piece of work, whether we agree with the author or not)—all four by G. d'Annunzio; Roberto Bracco's drama *Tragedie dell' Anima* (triumphant success; author shows psychological depth and dramatic skill); Giovanni Bovio's *Leviatano* (first of a trilogy; for the student, not for the stage); and Giannino Antona Traversi's interesting comedy *La Scuola del Marito*.

Norway.—Local history is contributed to in D. Grönvold's *Bergen. Past and Present*, and Kaptein Abildgaard's *Christiania*. Questions of law are considered in A. Taranger's trustworthy

Retrospect of the History of Norse Law; E. Hertzberg's learned *Rights of Possession of Norse Church Properties*; and B. Morgenstjerne's *Lærebog i den norske Statsforfatningsret*. C. O. E. Arbo's *Contributions to the Anthropology of the Norwegians* is praised for absolute exactness, and O. Rygh's exhaustive *Nomenclature of Country Estates and Townships* and A. Helland's *Topographical Survey of the country districts* have also been well received. New titles in philosophy and theology are G. Fasting's *Om Samvittigheden*; O. Jensen's *Om Soning og Forsoning*; H. A. T. Dedichen's "physio-psychical" writings; Rev. M. Lae's large work on the *Deluge*; and a new edition of Pastor C. Bruun's *Folkelige Grundtanker* (made a stir two decades ago by its attack on classical education). B. Arnulf writes of *Et retfærdigere Samfund*. J. Bing's *Norske Digte og Digtere* and Nils Kjær's *Boger og Billeder: Kritiske Forsøg* (1898; "fresh, *spirituel*, and impressionistic" in style) are noteworthy contributions to literary criticism. There is no very remarkable fiction. A fair share of success fell to E. Kraemmer's *Byen's Fædre*, G. Scott's *Fugl Fenix*, H. E. Kinck's *Hugormen*, Mrs. A. Skram's *Afkom* (1898) and Sommer, P. Egge's *Trøndere*, and others. V. Krag's *Rahel Strømme*, B. Lie's *Kaspar Bugge*, and F. Viller's *Gamle Friks Diamant* also appear in the record of *belles-lettres*. Noteworthy poetry is found in *Victoria, en Kærligheds Historie* ("a love song of the finest," of a "wondrously clear and full melody," replete with big, warm feeling), by Knut Hamsun, whose poetry has undergone a "rich development"; V. Krag's *Vestlandsviser*; and the excellent *Digte* of T. Anderson. New editions of E. Storm's *Døleviser* (by H. Halvorsen, an authority on dialects), finely illustrated, and of Holberg's comedies (carefully edited by N. Kjær) are also noted. Foremost in dramatic literature stands Bjørnstjerne Björnson's *Paul Lange og Tora Parsberg*, marked by "deep, human interest, but a rather unpopular subject"; the principal character, a slightly veiled portrait of a noted politician who committed suicide, is characterized finely and with "eager sympathy"; the play "vigorous and well wrought out." Of the other plays, Mons Lie's lyrical drama *Lombardo og Agrippina* and Mrs. Anna Munch's *Sorte Svaner* are said to have a certain charm. The opening of the new Norwegian National Theater at Christiania on Sept. 1, 1899, after twenty years of effort and agitation, was a memorable event in the annals of the stage in Norway; it had, also, a political as well as an æsthetic significance.

Poland.—National history is illustrated in T. Korzon's *The Prosperity and Adversity of John Sobieski* (3 vols.); Vol. II of *History of the Polish Nation*, by W. Grabiński (Smolenski); R. Lubiński's *General Tomasz Pomian hrabia Lubiński*; Hirszberg's *The False Demetrius*; and A. Kraushar's *The Bourbons in Exile in Mittau and Warsaw*. *The Unconscious Traditions of Mankind* (*Bezwiedne Tradycje Ludskósci*), by J. Ochorowicz, is "a study of the psychology of history." The Hoëné-Wronski affair is revived again in I. Drzewiecki's pamphlet *O Filozofii Hoëné-Wróńskiego Polemika z powodu książki P. S. Dickstejna*. To the great national poet are devoted A. Belcikowski's *Adam Mickiewicz: A Psychological Study of the Poet*; P. Chmielowski's *The Æsthetics of Mickiewicz*; and a brilliant essay by Mme. Konopnicka. L. Méyet has brought out a noteworthy new edition of the letters of Juliusz Słowacki, the famous poet, and Vol. VIII of the works of W. Spasowicz has seen the light. Besides new works by well-known authors, such

as W. Los, G. Zapolska, Sewer, W. Kosiakiewicz, K. Glinski, K. Rojan, etc., the fiction list includes W. Sieroszewski's short stories, *At the Edge of the Forest* (strong, especially in descriptions of Siberia); A. Dygasinski's humorous and truthful tales of village folk; the historical novels *For the Throne* (O Tron, effective account of struggle in Poland after the abdication of John Casimir), by A. Krechowicki and Wasi ojcowie, by Z. Kaczkowski; Z. Jenike's *The Orchids* (love stories); *The Distaff*, by M. Rodzewicz, and Emma Jelenska's *The Young Lady*, both stories of personal sacrifice to hold Polish soil; Mme. Z. Kowerska's psychological *Brothers and Elective Affinity* (some good points; prolix); A. Gruszecki's *The Swindlers* (drastic description of the Hebrew stock jobbers of Warsaw) and *In the Old Mansion* (contrasts the old nobility and the country folk); W. Reymont's *The Promised Land* (vigorous description of business life in the manufacturing town of Lodz); S. Zeromski's *Works of Fiction* (studies obscure mental processes); and J. Zych's *The Labors of Sisyphus* (Sisyfowe prace), an accurate and admirable description of the mental development of a Polish student reared under Russian influence. Much new verse has appeared by Z. Dembicki, W. Lieder, J. Sten, and others. Especially noteworthy are *The Wild Rose Shrub* (pessimistic; vigorous language), by J. Kasprowick, and L. Rydel's *Poems* (agreeable form). Here, as in other lands, the "moderns" discuss "art for art's sake" and other like watchwords of new aims; an older writer, however, declares that these most recent arrivals have not yet produced any very remarkable work. On the stage, too, the "young ones" are in evidence, not yet with great success, it seems. S. Przybyszewski's *For Fortune* (a psychological analysis; no drama) was a failure. J. Kisielewski shows talent in *Caricatures* (a sketch of a decadent); poetical ability and poor stagecraft mark S. Wyspianski's *Song of Warsaw* and *Lelewe!* (historical); S. Kozlowski's latest piece is of the old romantic school and has a dash of the operatic; and L. Rydel's *The Enchanted Circle* won success with the public by its dramatic situations, good dialogue, and truthful delineation of rural life.

Portugal.—Literary news from this country is ever rare, for obvious reasons. (See Annual Cyclopædia for 1895.) Noteworthy books of the year are José de Souza Monteiro's *O Auto dos Esquecidos*; Magalhães de Azeredo's *Procellarias* (verse; a mixture of truth and fable; writer has proved his talents in various forms of literature); *Portugal e Italia: Ensaio de Dicionario bibliographico*, by Antonio de Portugal de Faria (deals with the historical, artistic, and social relations of the two countries); *Bibliographia juridica portugallensis*, by Eduardo Alves de Sá (first year, 1898); and a useful *Diccionario de las seis Lenguas* (the languages being French, German, English, Spanish, Italian, and Portuguese), issued by the publishers of the interesting illustrated periodical *Occidente*.

Roumania, etc.—The French tendencies mentioned in 1897 are accentuated in Pompiliu Eliade's interesting and careful *De l'Influence française sur l'Esprit public en Roumanie* and A. Macédonski's *Les Bronzes* (dedicated to France, "la seule patrie des intellectuels"; we are told that the verses are not as good as the author's Roumanian poems, though some of them are remarkable). Books dealing with Roumania are Ne. S. Minovici's *Tatuajurile in România* (1898); *Documente private la Istoria Românilor. X: Raportul consular prusien din Jasi si Bucuresti*

1763-1844, adunate di Neculai Jorga (1897; Prussian consular reports from the Danubian countries); and the important *Reminiscences of the King of Roumania* (which appeared in English), dealing with the remarkable rise of the country under his rule. At Leipsic was published a *Linguistischer Atlas des dacumänischen Sprachgebietes*, hrg. auf Kosten der rumänischen Akademie von Gustav Weigand, Weigand being the manager of the Institut für rumänische Sprache in Leipsic.

As to the other Danubian countries, it is noted that in Servia much translating goes on (as, *Vicar of Wakefield*, 1898), and that M. I. Spalakovitch issued *La Bosnie et l'Herzégovine: Étude d'Histoire diplomatique et de Droit international* (Paris, 1899).

Russia.—Prominent among historical works is N. K. Shilder's elaborate *Emperor Alexander I* (a "historico-psychological monograph"). Also worthy of note are N. Kutepof's interesting *Imperial Sports of the Czars Mikhail Feodorovitch and Alexei Mikhailovitch in Russia*; second edition of P. Miliukof's *Chief Tendencies of Russian Historical Thought*; Diakonof's comprehensive *Sketches of the History of the Village Population in the Muscovite Empire*; and A. Dmitrieff-Mamonof's *The Insurrection of Pugatchef in Siberia* (new information, based on original documents). The collected writings of N. S. Tikhonravov, edited by M. Speranski and V. Yakushkin, form a "valuable storehouse for Russian historiography." Books and the stage form the theme of A. Pypin's *History of Russian Literature*; P. A. Sergeyenko's *How Count L. N. Tolstoi Lives and Works* (characteristic, interesting); Shliapkin's valuable *Natalia Alexievna and the Theater of her Time* (throws light on the early history of the stage); M. Stegloff's *The National Theater in Sketches and Pictures* (on the popular theater at Moscow; second edition); *Sketches of the History of Georgian Literature*, a readable account by A. S. Khakhanof, a native Georgian; a second edition of Merezhovski's *Eternal Fellow-Travelers* (interesting character studies of Pushkin, Ibsen, Montaigne, and others); N. Kotliarevski's *Disgust with the World at the End of the Past and Beginning of the Present Century* ("a series of characteristics, vigorously described, from the domain of romanticism, of Chateaubriand, Schiller, and Nodier"); and G. Potanin's thorough investigation of *Eastern Motifs in the Mediæval European Epos*. The Pushkin centenary celebration was a memorable event. A. Borozdin's *The Protopope Avvakum* illustrates intellectual life in Russia in the seventeenth century, and A. Viazigin's *Sketches of the History of the Papacy in the Eleventh Century* is a "careful study of documents." The *Northern Messenger* (*Sievernii Viestnik*) has ceased publication, and three new periodicals have seen the light: *Life* (*Zhizn*) and *The Beginning* (*Natchalo*), both devoted to economic and sociological questions, and *The World of Art* (*Mir Iskusstva*), issued by writers and painters of the younger school. Weak critical studies on economic questions are said to be numerous.

The ethical tendency in fiction is ever apparent, and is deplored by clear-sighted critics. Thus Tolstoi's otherwise remarkable *The Resurrection* (*Voskresenie*) is said to be marred by commonplace moralizings and truisms. It should be added that others say that it is the author's plain and fundamental truth about social life that arouses opposition. Other titles in fiction are Yasinski's *The Rebellion of the Cockroaches* (draws a merciless and gloomy parallel between

the Russian peasant and the insect); Tchekhoff's short stories (delicate, sad, purely Russian); Merezhovski's *The Gods who have Ascended* (Leonardo da Vinci the principal character; "dry and colorless" language); *Where can we go?* (novel) and *At Home* (short story, dealing with the "subjection of man"), by Borboruikin, whose methods are quite French; M. Gorski's two volumes of sketches and tales (passionate, nervous manner; vivid pictures of vagabond life); three novels (*The Cherry Tree*, *Mimochka*, and *Flashes of Lightning*) by Mme. V. Mikulich, who is good at characterization and at description of nature; and T. L. Shtchepkin-Kupernik's *From the Diary of Life* (a young but strong and fine talent; deep feeling, acute observation, artistic composition; "tendency" as well). Melshin, author of *In the World of Outcasts*, publishes sketches of convict life in the periodical *Russian Wealth* (Russkoe Bogatstvo). Contributions to lyric poetry are *Under the Open Sky* (good descriptions of nature), by Ivan Bunin, a young writer who has also issued an excellent translation of Longfellow's *Hiawatha*; *Hymn to Beauty*, by Korinfaki (author of *Songs of the Heart and Black Roses*); and a second edition of V. Shuf's *Crimean Sonnets*. About Art is a well-written and interesting book by Valeri Briusof, an original "poet symbolist." There has been issued a complete, six-volume edition of the works (poetry and prose) of K. K. Slutchevski, whose original talent met with adverse criticism at first; his position is now described as peculiar, and an original style, delicate psychological analysis, a fine spirit, and the endowment of inanimate objects with a soul life are named among the important features of his poetry. Other collected writings are those of Karonin, in two volumes (pictures of popular life), Mme. Markovitch (pseudonym Marko Vovtchok), in eight volumes, and M. N. Zagoskin, in ten volumes.

Spain.—Titles in national history are always numerous. General works worthy of note are J. Balari y Jovany's very important *Orígenes históricos de Cataluña*; J. Suárez Inclán's documentary *Guerra de Anexión en Portugal durante el Reinado de Don Felipe II* (1898); *Vida de Carlos III*, by C. de Fernan Núñez, edited by Morel-Fatio and Paz; the *Genealogico-historical Tree of the Sovereigns of Spain*, by Estevan y Diaz; Costa's *Agrarian Collectivism in Spain* and P. Pujol's *History of the Social Institutions of Gothic Spain* (both important); Iglesia's *Account of the Civil Guard*; Ramón Menéndez Pidal's critical and careful catalogue of the manuscript *Crónicas generales of Spain in the Royal Library*; *Ensayo bio-bibliográfico sobre los Historiadores y Geógrafos arábigo-españoles*, by Pons; *Apuntes sobre Viajes y Viajeros por España y Portugal* (reprinted from the *Revista Crítica*), by A. Farnelli, a German, which supplements Foulché-Delbosc's work; and *documents inédits*, such as Vol. IV and last of Count de Torata's *Documents of the War of Secession in Peru*, new volumes of the *Cortes of Catalonia* (1359 to 1367) and the *Dietari of Barcelona* (Vol. VII), the *Book of the Privileges of Tarrasa*, brought out by Soler y Palet, and continuations of familiar series, such as the *Documentos inéditos de las antiguas Posesiones de Ultramar* and the *Monumenta historica Societatis Jesu*. The following are found classed as archæology: *Catálogo de las Colecciones expuestas en las Vitricas del Palacio de Liria*, edited by the Duchess of Alba; the *Conde de Valencia de Don Juan's* fine "historico-descriptive" catalogue of the Royal Armory; works on new discoveries in Santiponce and Carmona,

by Caballero-Infante and Fernández; the Catalan Jos. Brunet y Bellet's *L'Escriptura, lo Gravat, l'Imprempta, lo Llibre*; and P. de Alzola y Minondo's *Las Obras públicas en España*. In biographical literature there are Olmedilla's short *Life of the Physician, Botanist, and Author, Cristobal de Acosta*; a memoir of the late Marcos Jiménez de la Espada (a *savant* noted for his geographical investigations), by Fernandez Duro and Martinez; Carracido's study of Father José de Acosta (the famous author of the *Natural and Moral History of the Indias*); Hernando's lecture on Cardinal Cisneros and his services to Spanish culture in the University of Alcalá, etc.; Luanco's interesting monograph on Don Juan Agell and his Scientific Labors; and A. M. Fabie's excellent *Biografía del Excmo. Sr. D. Pedro Salaverria. The Most Ancient Dynasty of Printers in Europe*, by Llabrés, is a curious pamphlet on the family Guasp of Mallorca. Local history, also voluminous, includes L. Ferreiro's *History of the Church of Santiago in Galicia* (interesting, careful; many new facts); Soler's *Parish Church of Tarrasa*; Miret's *Relations between the Monasteries of Camprodon and Moissac*; Ant. Blázquez y Delgado Aguilera's *Historia de la Provincia de Ciudad-Real*; *El Franco*, by Fernandes, and Boal, by Acevedo, both in the Asturian Library; and J. C. García's important *Biblioteca de Escritores de la Provincia de Guadalupe y Bibliografía de la misma hasta el Siglo XIX*. The former colonies of Spain are the theme of numerous works, among them V. Llorens Asensio's *Historia general de Filipinas y Catálogo de los Documentos referentes á estas Islas que se Conservan en el Archivo general de Indias*; Vol. IV of W. E. Retana's *Archivo del Bibliófilo filipino*; *Descriptive Account of Maps, Plans, etc., of the Philippines in the Archives of the Indias*, by Torres-Lanzas; F. de Monteverde y Sedano's *Campaña de Filipinas: La División Lachambre, 1897* (1898); Torral's *El Sitio de Manila: Memorias de un Voluntario*; J. Caro y Mora's *Ataque de Li-Ma-Hong á Manila en 1574*; J. de Alcázar's *Historia de España en América (Isla de Cuba)*; and Pablo de Alzola's volume of magazine articles on *El Problema Cubano*. The late war is described in *La Guerra hispano-americana*, by El. C. Verdades; *La Guerra hispano-americana: Barcos, Cañones y Fusiles* and *La Guerra hispano-americana: El Bloqueo y la Defensa de las Costas*, by S. Gómez Núñez; M. Corral's *El Desastre! ó los españoles en Cuba: Memorias de un Voluntario*; Admiral P. Cervera y Topete's *Guerra hispano-americana: Colección de Documentos referentes á la Escuadra de Operaciones de las Antillas*; E. Amador y Carrandi's *La Guerra hispano-americana ante el Derecho internacional*; and pamphlets, such as C. Saavedra y Magdalena's *Algunas Observaciones sobre los Desastres de la Marina española en la Guerra con los Estados Unidos en 1898* and the anonymous *Apuntes para la Historia de la Perdida de nuestros Colonias, por un Testigo presencial*. There has been much written on "regeneration" and "reform" of the country after its sad defeat. Noteworthy are R. M. Picavea's *El Problema nacional: Hechos, Causas, Remedios*; E. Pardo Bazán's *La España de Ayer y la de Hoy* (aroused a tempest of Chauvinism); *Mesa de la Peña's España* (of "palpating present interest"; throws much light on the political causes of Spain's recent fall); and Joaquín Sánchez Toca's interesting *Del Poder naval en España y su Política económica para la Nacionalidad ibero-americana* (magazine articles on decadence of naval power). Various economic and socio-

diplomatist and *litterateur*. The daily *La Lei*, conducted by Cabrera Guerra, has a Sunday supplement, intended to collect the "most exquisite literary production of the country."

Cuba.—New works are F. J. Balmaseda's *Los Confinados á Fernando Poo é Impresiones de un Viaje á Guinea* (second edition) and *Las Islas Filipinas: Mindanao*, by B. Francia y Ponce de León and J. González Parrado.

Mexico.—Titles noted: *Biblioteca de Autores mexicanos*, Vols. XVIII, XX (*Obras de J. García Icaz Valceta*, Vols. VIII and IX), and XIX (*Obras de J. Cuevas*, Vol. I), and *Obras de Don Ignacio M. Altamirano*, Tomo 1: *Rimas, Artículos literarios*. *El primer Obispado de la Nación mejicana: Artículos publicados sobre esta Materia y sobre otros Puntos de nuestra Historia*, by J. F. Molina Solis, was published at Mérida de Yucatán in 1897.

Venezuela.—*Cuentos de Color and De mis Romerías*, by Manuel Díaz Rodríguez and Rufino Blanco Fombona's *Trovadores y Trovas*. These are both good writers, but "dominated by the mania of French modernism, which, transplanted to America, turns into a preciousness without substance."

LOUBET, ÉMILE, President of the French Republic. A thrifty farmer of Marsanne, in the department of the Drôme, having himself risen to the distinction of being chosen *maire* of the commune, was determined that his son should be a lawyer. The young peasant dutifully applied himself, and, overcoming the disadvantages of his rustic origin, completed his studies and began practice in Montélimar, the nearest market town to his father's farm. The advocate Émile Loubet did so well that at the age of twenty-eight he received in marriage Marie Denis, the daughter of one of the richest men in the town, a man who had begun in Picardy as a journeyman nailmaker, and became a manufacturer of nails and a dealer in iron goods on a considerable scale. His bride was ten years his junior. He passed through the various local offices, and won the confidence and respect of his fellow-citizens as member of the municipal council, *maire* of the commune, *arrondissement* councillor, and finally an active member in the general council of the department. He came forward in 1876 as a candidate for a seat in the Chamber of Deputies, and was elected. After serving nine years in the popular house as a conscientious and industrious legislator of no particular brilliant gifts, he was chosen Senator for his department of the Drôme. After that he was called into the Cabinet as Minister of Public Works, an office that he filled with much credit to himself. He became one of the great men in the councils of the Republican party, and in 1892 he was called upon to form a Cabinet himself. He was a Republican of advanced and decided views, of Radical tendencies, a man of extensive knowledge both of books and of affairs, and was greatly esteemed for sound judgment, capacity for business, and, above all, for sterling integrity of character and unblemished honor, although his retirement from the premiership had been occasioned by strictures on the apparent laxity of the Government in pursuing the Panama corruptionists. In the Senate he was appointed on the most important committees almost from his entrance into that body, of which he was soon chosen secretary, and in 1896, on the death of M. Challemel Lacour, he was elected its president. This is one of the offices in France from which the step to the presidency of the republic is easy. When the National Assembly met in Congress at Versailles

on Feb. 18, 1899, to elect a successor to President Félix Faure, suddenly deceased, the president of the Senate, who presided over the Congress, was chosen on the first ballot, and only the revolutionary disturbers who sought to create a turmoil in the interests of royalty or of any change that would give a chance to their unrestrained egotism ventured to decry the staunch and sound Republican who became the seventh President of the republic.

LOUISIANA, a Southern State, admitted to the Union April 30, 1812; area, 48,720 square miles. The population, according to each decennial census since admission, was 152,923 in 1820; 215,739 in 1830; 352,411 in 1840; 517,726 in 1850; 708,002 in 1860; 726,915 in 1870; 939,946 in 1880; and 1,118,587 in 1890. Capital, Baton Rouge.

Government.—The following were the State officers in 1890: Governor, Murphy J. Foster;

MURPHY J. FOSTER, GOVERNOR OF LOUISIANA.

Lieutenant Governor, Robert H. Snyder; Secretary of State, John T. Michel; Treasurer, Alexander V. Fournet; Auditor, W. W. Heard; Attorney-General, Mr. J. Cunningham; Superintendent of Education, Joseph V. Calhoun; Adjutant General, Allen Jumel; Commissioner of Agriculture and Immigration, Jordan G. Lee; Commissioner of Insurance, J. J. McCann—all Democrats; President of the Pension Board, J. A. Chalarron; Bank Examiner, Fred G. Freret; Railroad Commission, C. L. De Fuentes, R. N. Sims, and W. L. Foster; Chief Justice of the Supreme Court, Francis T. Nicholls; Associate Justices, Newton C. Blanchard, Lynn B. Watkins, Joseph A. Breaux, and Henry C. Miller, who died and was succeeded in March by Frank A. Monroe; Clerk, T. McC. Hyman—all Democrats.

Education.—"Up to the beginning of 1898," the State Superintendent says, "the State assessors made every year a return to the State Auditor of the number of children in their parishes between the ages of six and eighteen years, and in obedience to the Constitution the State Superintendent of Education apportioned the current school fund among the parishes in proportion to these reports of the assessors. These annual reports were the subject of considerable comment, and it was contended that, as the assessors were not paid for this work, their returns were based upon conjecture rather than actual count. By a mandate of the Constitutional Convention of 1898 the General Assembly passed an

James M. Smith

Emile Louhe

act making it the duty of the State assessors to make a diligent canvass of their parishes, and to write the name, age, sex, residence in ward, and color of every child in the parish between six and eighteen years. This has been done, and we have now the total number of children as correctly as, we believe, it can be ascertained. The school boards of the parishes have paid the assessors for their work at the rate of 4 cents per child listed, and the correctness of the lists has been sworn to by the assessors, and examined and all finally approved by the State Board of Education. In 1897 the number of children reported was 434,750; in 1898, 445,509. The present enumeration gives 402,250, and upon this last number the present apportionment is made, and all apportionments for the next four years will be based, unless the General Assembly shall change the law of 1898. The amounts of apportionments of the school fund in 1898 were: March, \$151,963; June, \$54,343.63; September, \$30,432.50; total, \$236,739.13. In 1899: February, \$178,203.60; May, \$80,191.62; September, \$34,191.25; total, \$292,586.47."

The State University and Agricultural and Mechanical College opened in the autumn with about 300 students, the largest attendance it has ever shown at the beginning of the year.

Railroads.—A table showing the number of miles of track laid in each State credits Louisiana with 158.

The State Railroad Commission, which was provided for by the new Constitution, organized, and in March published a set of rules and regulations governing the transportation of passengers and freight, the erection and location of depots, and the posting of tariffs. Rules were also established for governing telegraph and telephone companies.

Cotton.—The cotton acreage of the State this year is given as 1,179,000 acres. The report of Secretary Hester in September gave the consumption of Louisiana mills at 18,025 bales. An estimate of the crop placed it at 507,400 bales.

Pensions.—The State Pension Board closed its session March 17, after approving 317 claims, making a total of 1,024 claims so far approved. A special dispatch says the payment of these pensions is becoming a problem, and it seems almost certain that next year the rates adopted some months ago will be reduced in order to make the money go round. There seems to be no end to the applications, more than 25 having been received during the session of the board, which, under the rules, will lie over until its next meeting. The president of the board said: "No higher duty can devolve upon the Confederates, singly or in camps, than that of seeing to it that skulkers, deserters, and those not coming under the intent and requisites of the law shall not obtain a pension, and not deprive deserving ones of the small allowance the State is able to accord them. Already the appropriation is exhausted, and the board is appalled at the steady inflow of applications. Devoting to its labors the most painstaking and conscientious scrutiny, it has felt compelled in the face of the sworn facts presented so far in 2,050 applications to grant 1,024 pensions. That there are undeserving ones among these is very probable. It is incumbent not alone on all good soldiers, but also on all good citizens, to see that the State's money is applied only as intended by the law, which says of the pensioner: 'He shall have remained true to the Confederate States until the surrender,' and 'he shall be in indigent circumstances and unable to earn a livelihood by his own labor.'"

Prevention of Crevasses.—The Atchafalaya and Lafourche levee boards held a joint meeting in May to decide upon a line of action for the protection of the Lafourche country from high water. The levee boards have made strenuous efforts to protect Bayou Lafourche. Since April, 1890, they have built 7,250,000 cubic yards of levees at an expenditure of \$1,010,000, averaging in a period of nine years \$112,000 per annum. The bulk of this money has been spent in the last three or four years. In spite of all this, results are negative. Crevasses occur on the lower bayou as the result of a flood wave even when there is no flood on the Mississippi river. Excessive flood heights are reached at Raceland and Lockport, and all of the lower bayou, when the water is still some 5 feet below the top notch at Donaldsonville, the head of the bayou. A moderate high water on the river causes a flood below on the bayou, which breaks the levees built at the above-mentioned great expenditure. The plan recommended in 1886 by Major Heuer, of the United States Engineer Corps, and adopted by Congress, consists of a system of locks at Donaldsonville, supplemented by a dredging of Bayou Lafourche, so as to render navigation sure. Congress, although adopting this plan, only gave money sufficient to carry on the dredging. It was decided at the meeting to ask Congress at the next session to appropriate money sufficient to carry out the plan of placing locks at Donaldsonville; and the boards pledged themselves to devote to this work, in co-operation with Congress, the sums that would otherwise be required, in the absence of the locks, to put the levees in condition.

Water Ways Convention.—The Louisiana Water Ways Association was formed at a meeting held in New Orleans on Dec. 18. More than 100 persons were in attendance. M. J. Sanders was elected president, S. F. Lewis secretary, and T. J. Woodward treasurer. The following resolutions were adopted:

"Whereas, Numerous points in Louisiana that in former years were open to navigation have ceased to be accessible to steamers and other craft, owing to the obstructions which have been permitted to accumulate in many streams; and whereas, the restoration of these streams to navigation would open cheap public ways of transportation for the products of the farm and the plantation and for the wares of commerce; and whereas, the value, desirability, and productions of lands bordering upon the now obstructed streams would be increased to an incalculable extent were these streams reopened for free navigation; and whereas, the streams of this State offer unrivaled advantages which it is an offense against natural laws to neglect; and whereas, the method which has been pursued by the National Government of dispersing small appropriations among these streams, which appropriations are largely absorbed by the way expenses of the dredge and snag boats employed to remove obstructions; and whereas, the work of reopening these streams should be prosecuted upon business principles; be it

"Resolved, That the Congress of the United States be and is hereby petitioned to inquire into the expediency of purchasing an adequate fleet of dredge boats, snag boats, and boats equipped to construct locks and dams, the same to be under the direction of Government engineers and officers of the army or navy; further, that for the operation of such fleet adequate appropriations should be made, so that once the work of restoring a stream to free navigation is com-

menced such work shall suffer no discontinuance until it shall have been thoroughly completed; be it further

"Resolved, That in furtherance of the preceding the police juries of the various parishes be and are hereby requested, as soon as practicable, to furnish to the president of this association information upon the water courses (the Mississippi excepted) in their respective parishes, giving the farthest point ever reached by steamers, the farthest point which, with the aid of locks and dams, it would be possible to reach with steam crafts; the lowest stage of water at the shallowest places, the nature of existing obstructions to navigation, and, approximately, the cost of opening navigation to stated points on the water courses referred to, and such other information upon this subject-matter as the said police juries may deem useful."

Land Claims.—By a decision of Commissioner Hermann, of the General Land Office, the claim of the State as to its rights under the swamp indemnity laws was allowed. "By this decision the State should receive about \$35,000 in money, besides land scrip for the swamp lands erroneously taken by the Government. The lands covered by the decision are swamp lands allowed to be located by the United States between March 2, 1849, and March 3, 1857. The State also claimed cash indemnity for lands sold by the United States and granted to the State. The contention of the clerk who drew up the first opinion, which the commissioner overruled, was that it was the intention of Congress in the passage of the act of March 2, 1857, to confirm to the State lands in places fraudulently selected in exchange and in consideration for the retention by the United States of all consideration which it had received for lands subject to the grant of 1849 and 1850, which had been sold and allowed to be located by the United States prior thereto, save those few particular tracts for which he concedes that the States are entitled to indemnity in the law in question, except that of 1849. The Government received consideration from the purchasers or locators of land located between March 2, 1849, and March 3, 1857, for lands which, though in fact swamp, had not been identified at the time of their sale or location."

New Orleans.—A State industrial fair was opened in New Orleans, May 8, with a peace jubilee, to celebrate the ending of the war with Spain and the return of the volunteers.

New Orleans is the only great city in the country without sewerage, the waste being carried off in open gutters. But in June an election was held to take the vote of the taxpayers on the question of improvements in this and other directions. The decision was overwhelmingly in favor of a special tax of 2 mills for sewerage, drainage, pure water, paving, park, and other improvements. The plan contemplates an expenditure of \$14,000,000 in the next few years. Woman property holders were allowed to vote, and were mainly instrumental in gaining the victory, having a central league and clubs in every ward.

The revised Constitution of Louisiana provides that taxpaying women shall have the right to vote in person or by proxy upon all questions submitted to taxpayers.

Suit against Texas.—In October the State, acting through its Governor and counsel, presented a petition to the United States Supreme Court praying for an injunction to restrain Texas from keeping up a quarantine against Louisiana on account of alleged danger of infection from yellow fever. On the part of Louisiana it is said

that the "health officer of Texas, who seems to be vested with absolute and dictatorial powers in the matter of declaring and establishing quarantine, has for several successive years entirely cut off and prohibited all transportation of the United States mails, of passengers, and of merchandise between the two States of Louisiana and Texas," although intercourse with other countries known to be infected was maintained. About Nov. 6 the quarantine was declared at an end, and up to that time the court had not handed down a decision.

Lawlessness.—A lynching that took place at Tallulah in July acquired international significance from the fact that the five men lynched were Italians. The trouble arose about some goats belonging to one of the Italians. The goats were in the habit of sleeping and running on the gallery of Dr. J. Ford Hodge's office and residence. The doctor on numerous occasions requested Frank Defatta to keep his goats shut up; but Defatta would not do it, and on the night of the 19th Dr. Hodge shot one of the goats on his gallery. In revenge for this Defatta with four other Italians, two of whom were his brothers, waylaid the doctor on the evening of July 20 and shot and mortally wounded him. The sheriff arrested the men, but they were taken from him by a mob and hanged to a gallows used for slaughtering beeves. A dispatch from the town said this was "the third outrage committed by this same class. About two years ago Frank Defatta shot and killed a negro for picking up a watermelon that Frank had for sale, and about one year ago Joe Defatta shot and killed Pat Mathews, landing keeper at Milliken's Bend, as he was passing his store, in cold blood about a trivial controversy they had had about some freight, and was cleared by some technicality of the law. They had frequently made their boasts that they would do as they pleased, and their money would clear them."

The evidence as to whether the men had been naturalized or were still Italian citizens appeared to be conflicting. In the absence of the Italian minister, the *chargé d'affaires*, Count Vinchi, made investigation. The report of the secretary of the embassy seems to have asserted that there were no mitigating circumstances, that Dr. Hodge first drew a weapon, and that the first shot fired by Defatta was in defense of his fallen brother, and not a wanton attack. Describing the affair in detail, the report points out that some time after the first two men were lynched the mob made a second and third visit to the jail, whence they removed and lynched the three other Italians, all of whom, it is contended, were in utter ignorance of the wounding of Dr. Hodge. Conceding some extenuating circumstances in the lynching of the two men immediately concerned, Marquis Romano contends that the lynching of the other three was a thing of particular atrocity. The Governor's report clashed with this at nearly every point.

A man suspected of cattle stealing and other offenses was hanged by a posse of men near Wilson on Oct. 15.

Of lawlessness in another parish, the Picayune said, Oct. 9: "Another shooting scrape is reported from Tangipahoa parish, and, from the accounts received, the affair was on a par with the many other such deeds which have made the parish famous for the apparent spirit of lawlessness which is believed to prevail there. It is a notorious fact that, while there have been dozens of violent crimes in the parish, not a single person has been punished."

It was only in April that four men, apparently belonging to the same clique, had been arrested in Tangipahoa on the charge of conspiracy by violence and threats of violence to compel persons to leave a place where they lawfully were.

Legislative Session.—The Legislature met in special session Aug. 8, and adjourned Aug. 18. Twenty-one members of the Senate and 72 members of the House were present at the opening.

The object of the session was, first, to authorize the city of New Orleans to organize a sewerage and water board to construct and administer great public sanitary works, and, through the aid of a constitutional amendment to that effect, to permit the issuing of bonds based on a special tax, the proceeds of which are to be used in the construction of the public works so provided for, the city having voted in favor of these improvements June 6.

The Legislature was expected also to carry into effect the article of the Constitution authorizing various cities, towns, and drainage districts to levy special taxes and issue bonds for works of improvement and protection from floods and for sanitary purposes. Also to provide for certain improvements to be made in the State Capitol and grounds and other matters pertaining thereto.

The important laws called for were enacted. The constitutional amendment to ratify the action in reference to the special tax for public improvements will be voted upon in April, 1900. The water and sewerage act was passed, after some attempts to amend by leaving out a civil-service provision, and to reduce the proportion of the fund to be spent on drainage. The so-called "country bill" was also passed, providing that "for the purpose of paving and improving streets, roads, and alleys, purchasing or constructing a system of waterworks, sewerage, drainage, lights, public parks and buildings, bridges, and other works of public improvements, the title to which shall vest in the municipal corporation, parish, or drainage district, as the case may be, municipal corporations, parishes, and drainage districts (the city of New Orleans excepted), when a majority of the town council, etc., so petitioned in writing by one third in number and amount of the property taxpayers entitled to vote on any proposition hereinafter set forth, may submit to a vote of the property taxpayers propositions to incur debt and issue negotiable bonds therefor not to exceed one tenth of the assessed valuation of the property within said municipal corporation, parish, or drainage district, as shown by the last assessment made prior to the submission of such proposition; and when a majority of the town council, etc., petitioned as aforesaid, may submit to such vote propositions to levy and assess special taxes upon the property subject to taxation in such corporation, parish, or drainage district, such taxes not to exceed 5 mills on the dollar of the assessed valuation in any one year, and not to run for a greater number of years than the number named in the propositions submitted."

Decision.—The law providing for an inheritance tax of 10 per cent. on property received by foreign heirs, for the benefit of the charity hospital in New Orleans, is declared unconstitutional, since, being an act concerning revenue, it should have originated in the House, whereas it did originate in the Senate.

Political.—An association called "the Jackson Democratic Association of Louisiana" was formed in July. A meeting and barbecue were held at Rayville July 4, with the apparent object of bringing together the opponents of Gov. Fos-

ter's administration. Speeches were made by United States Senator Caffrey, ex-Congressman Boatner, and others. A few days later the association was formed and a declaration of principles was put forth. It opposed trusts, demanded fair elections and fair counts, rigid enforcement of the franchise clauses of the new Constitution, election of United Senators without influence of Executive patronage, appointments to public office for fitness, reasonable rotation in office, and honestly conducted primaries, and said also: "We shall demand that the Governor to be elected shall confine himself to the discharge of the duties of the executive office, and shall not use as a corruption fund the power of appointment vested in him by law to coerce and influence legislative action in the election of United States Senators or otherwise."

The first election under the new Constitution was the city election at New Orleans, Nov. 7. The negro vote was almost entirely eliminated. The Jackson Democracy united on a ticket with the Citizens' League, which carried the election in 1896, when the citizens were roused to the pressing need of reform in the administration of city affairs. They were defeated by the regular Democratic organization.

The election of State officers will not take place till April, 1900. The Democratic State Nominating Convention was held in Baton Rouge, Dec. 19 and 20. There were many candidates for the first place on the ticket, among them W. W. Heard, present State Auditor; S. McC. Lawrason; R. H. Snyder, present Lieutenant Governor; and John Dymond. The ticket chosen follows: For Governor, William Wright Heard; for Lieutenant Governor, Albert Estopinal; for Secretary of State, John T. Michel; for Attorney-General, Walter Guion; for Superintendent of Education, Joseph V. Calhoun; for Treasurer, Ledoux E. Smith; for Auditor, Will S. Frazee.

The platform denounces trusts. It calls for appropriations from the Federal Government for the improvement of the Mississippi, the construction of levees, the jettifying and improvements of the southwest part of the Mississippi, and a canal connecting the Atlantic and Pacific Oceans with the isthmus. Gov. Foster's administration is praised, as well as the suffrage clause passed by the late Constitutional Convention disfranchising the negroes. No reference is made to Bryan, to the financial question, or to any issue relating to the national Democracy.

The other parties did not hold their State conventions before the close of the year.

LUTHERANS. The Lutheran Church in North America is a communion of many nationalities and many languages. It has rightly been called a polyglot Church, for its services are conducted in more than a dozen different languages. It is to be found in nearly every State and Territory of the United States and in numerous provinces of the Dominion of Canada, and has a baptized membership of about 8,000,000. But it is not a foreign Church, for a large portion of its members are native Americans, and most of its literature, apart from that of the periodicals, is published in the English language. The most important publication of this year is The Lutheran Cyclopaedia, an octavo volume of nearly 600 pages, edited by the Rev. Henry Eyster Jacobs, D. D., LL. D., and the Rev. John A. W. Haas, of New York city. During the previous year the publication of a Lutheran Commentary on the New Testament, in 12 volumes, was finished. These publications represent the different tendencies in doctrine, worship, and life, as well

as the literary standing of the leading men in the Church.

Following is a summary of statistics as published in the Lutheran Church Almanac, embracing the latest data collected with great care by the editor of this publication:

The Lutheran Church in this country is organized into 60 district synods, and these again into 4 general bodies, embracing 46 district synods, the rest being independent synods. The number of clergymen is 6,657; congregations, 11,101; and of communicant members, 1,570,134, an increase over last year of 225 clergymen, 588 congregations, and 34,582 communicant members. The parochial or Church schools number 3,085, with 3,856 teachers and 216,980 pupils, while the Sunday schools number 6,290, with 58,508 officers and teachers and 550,038 scholars. The purely benevolent contributions for the year aggregate the sum of \$1,020,520.23. The educational institutions number 115, of which 23 are theological seminaries, 47 colleges, 35 academies, and 10 colleges for women, with an aggregate value of property amounting to the sum of \$4,883,846, endowment amounting to \$1,507,812, having 299,570 volumes in their libraries, employing 657 professors and instructors, and having 13,235 students, of whom 2,662 have the ministry in view. There are 99 benevolent institutions under Church control, of which 43 are orphanages, 19 homes for the aged and afflicted, 18 hospitals, 11 immigrant and seamen's missions, and 8 deaconess institutions. The aggregate value of property of these institutions is \$3,596,302, and the endowment \$173,195, and the number of inmates is 26,161. This makes a total of 214 institutions directly or indirectly controlled by Church influences, the value of whose property amounts to \$8,480,148, with endowment amounting to \$1,681,007, or a total of \$10,161,155. Most of this money has been contributed in small amounts. Only one of these institutions has been fully established by the gift of an individual. None of the rest are sufficiently endowed, and hence must depend for their support upon the annual contributions made by the congregations. The amounts already stated, however, do not include the annual expenses necessary to carry on the diversified activities of the various institutions, and hence the record is not complete. The expenses necessary to carry on the operations of the 214 institutions would add materially to the \$10,000,000 set down as money used in connection with the work of the Church. As a proof of this statement we need refer only to one synod—the Augustana—for whose institutions the sum of \$208,248.98 was expended in 1899. The periodicals published number 165, of which 71 are English, 51 German, 17 Norwegian, 8 Swedish, 8 Danish, 3 Icelandic, 2 Finnish, 2 Slavonian, and 1 each French, Lettish, and Estonian.

General Synod.—The thirty-ninth biennial convention of this body was held in York, Pa., May 24 to June 1, 1899. Twenty-four district synods were represented by 120 clerical and 119 lay delegates. The convention was opened with divine service, at which the retiring president, the Rev. M. W. Hamma, D. D., of Washington, D. C., delivered the sermon. The Hon. Frank Geise, mayor of York, extended a welcome to the synod in behalf of the citizens, the Rev. George W. Enders, D. D., in behalf of the Lutherans of the city, and the Rev. Clinton E. Walter in behalf of the members of St. Paul's congregation. To these addresses of welcome the president responded. At the first session the following officers were elected: The Rev. Prof. Samuel F.

Breckenridge, D. D., Springfield, Ohio, President; the Rev. William E. Fischer, D. D., Shamokin, Pa., Secretary; and Louis Mauss, Cincinnati, Ohio, Treasurer.

The Board of Trustees of the National Lutheran Home for the Aged, Washington, D. C., reported that the institution has been in operation since 1895, that its property is valued at \$50,000, and that it has 25 inmates. The Hymn Book Publishing Committee reported the completion and publication of a book of worship with hymns in English, and tunes, as well as progress in the publication of a similar work in German. The Board of Trustees of the Tressler Orphans' Home, Loysville, Pa., reported that the institution is in a flourishing condition, having 150 children under its care. The body expressed its hearty approval of the Lutheran conference held in Philadelphia, Pa., in December, 1898, and reappointed the Rev. Stephen W. Owen, D. D., as its representative in arranging for a similar convention in co-operation with other Lutheran bodies. The Committee on Common Service reported that its work in so far as Luther's catechism was concerned was completed, and presented the work in connection with the report. It also presented forms for 17 ministerial acts. The Committee on Literary and Theological Institutions presented encouraging reports with reference to Hartwick Seminary, at Hartwick, N. Y.; the Theological Seminary and Pennsylvania College, at Gettysburg, Pa.; Wittenberg College and Theological Seminary, at Springfield, Ohio; Carthage College, at Carthage, Ill.; Susquehanna University, classical and theological departments, at Selinsgrove, Pa.; and Midland College and Western Theological Seminary, at Atchison, Kan. The statistical secretary presented the following report: "We have in our 24 district synods 1,545 churches, 37 more than reported two years ago; preaching stations, 188, a decrease of 18; 1,786 prayer meetings are held, a gain of 117; 281 students for the ministry, 31 less than in the previous two years; 37,808 catechumens, a gain of 4,036. The losses were: By death, 5,947; by certificate, 6,829; other losses, 12,794; while the accessions were: by infant baptism, 22,338; adult baptism, 5,995; confirmation, 18,742; certificate, 10,064; restoration, 3,273. The present reported communicant membership is 192,299, an increase of only 7,571 over the previous biennium. These figures show that many pastors do not report all their accessions, since a comparison of the reported losses and accessions shows a net gain of 12,504. Our churches own property whose estimated value is \$12,129,943.21, and congregations paid for local expenses \$2,713,300.93, or \$324,916.65 more than during the preceding two years. Our Sunday schools number 1,544, a decrease of 18. These schools have 23,625 officers and teachers and 186,695 pupils, an increase of 1,341." The benevolent contributions amounted to \$477,135.

Foreign Missions.—The General Synod has missions in India and Africa. Following is the report of the work in India: The Board of Foreign Missions employs 170 workers, who labor in 514 villages containing native Christians, in 421 organized congregations, whose baptized membership in 1898 was 17,811, of whom 6,366 were communicants. The Sunday schools number 208, with 10,538 pupils. They maintain 173 elementary schools, with 203 teachers and 4,475 pupils; 1 boarding school, with 130 pupils; and 1 college, at Guntur, East India, of which the Rev. Luther B. Wolf is president, employing 40 teachers and having 863 students. The zenana department contains 58 workers, 15 schools, and 913

pupils, and 14 Sunday schools with 705 pupils. The mission also supports a hospital and a dispensary, and employs several trained nurses. The mission in Africa is in Liberia, with Muhlenberg as its center. Its working force consists of 7 missionaries, who labor in various localities. The industrial establishment of this mission is valued at \$77,350, embracing 560 acres of land and 50,000 coffee trees, whose products are sold for the maintenance of the mission.

Home Missions.—The Board of Home Missions supports 160 missions, at an expense of \$96,533.41 in two years. These missions are thus located: California, 8; Colorado, 4; District of Columbia, 1; Illinois, 6; Indiana, 9; Iowa, 7; Kansas, 12; Kentucky, 3; Maryland, 11; Michigan, 3; Missouri, 3; Nebraska, 19; New Jersey, 3; New Mexico, 1; New York, 15; Ohio, 12; Pennsylvania, 39; Tennessee, West Virginia, Wisconsin, and Wyoming, each 1. Of these, 144 are English, 14 German, and 2 Scandinavian. The board asked for \$100,000 for the next biennium.

Church Extension.—The Board of Church Extension reported assets amounting to \$352,434.42. In the past two years loans, donations, and special appropriations were made to 205 congregations. A resolution was passed to the effect that the general body apportion among its district synods \$40,000 annually for church extension, beginning with April 1, 1900.

Board of Education.—This board reported its total receipts as \$19,770.15, which includes a small balance from the last biennium. Of this amount, \$19,595.92 was disbursed for the aid of various institutions.

Deaconess Work.—The board having this work in charge reported a large increase in the interest of the Church in this important branch of activity. The receipts from various sources for the past two years amounted to \$12,106.78. The motherhouse, in Baltimore, Md., has 12 deaconesses, 13 probationers, and 1 candidate. The course of training has been lengthened to two and a half years. The institution maintains an industrial school, averaging 32 pupils, a school for colored children, with 30 pupils, and a Christian kindergarten, with 9 pupils. Deaconesses have served parishes in New York, Washington, Cincinnati, Harrisburg, Baltimore, and Cumberland, and in hospitals in Philadelphia and Carlisle, and were engaged as nurses among the soldiers of the Spanish-American War. They made 1,203 visits to the poor, 1,699 to the sick, and 50 to various institutions.

Publication Board.—This board reported assets amounting to \$160,520.06. It publishes annually 7 periodicals, whose combined circulation is 286,250 copies. During the previous biennium it issued 11 new publications and new editions of 14 works.

The next convention of this body will be held in Des Moines, Iowa, beginning May 29, 1901.

General Council.—This general body, composed of English, English-German, and Scandinavian synods, held its twenty-seventh convention in Wicker Park Church, Chicago, Ill., Sept. 28 to Oct. 4, 1899. The opening sermon was delivered by the Rev. George C. F. Haas, of New York city. The following officers were elected: The Rev. Dr. Mattis C. Ranseen, Chicago, President; the Rev. William K. Frick, Milwaukee, Wis., English Secretary; the Rev. George C. Berke-meier, Mount Vernon, N. Y., German Secretary; the Rev. Gustaf A. Brandelle, Denver, Col., Swedish Secretary; and William H. Staake, Esq., Philadelphia, Pa., Treasurer. The 9 district synods were represented by 91 clerical and 49 lay dele-

gates. The district synods embrace 1,228 clergymen, 2,011 congregations, and 352,454 communicant members; 551 parochial schools, 673 teachers, and 26,572 pupils; 1,715 Sunday schools, 22,079 officers and teachers, and 204,648 pupils. The benevolent offerings of the congregations for two years amounted to \$554,850.48. In connection with this body there are 3 theological seminaries, 7 colleges, 2 academies, 11 orphans' homes, 5 homes for the aged and afflicted, 7 hospitals, 4 deaconess institutions, and 3 immigrant and seamen's missions.

The principal features of the work of this convention consisted in action taken on the reports of general boards and committees, of which the following is a brief summary:

Foreign Missions.—The General Council is carrying on missionary operations in East India, in the Madras presidency, with the city of Rajahmundry as its central station. The board employs 149 mission workers, who labor in 7 principal stations, and have schools in 120 villages and preaching stations in 205 villages. The number of baptized Christians is 5,343, of whom 2,415 are communicants. The number of children in the various schools is 2,469. On March 26, 1899, the Rev. T. Joseph, a native pastor, died, and on Jan. 8, 1899, another native, J. William, was ordained to the office of the ministry. The missionaries maintain a seminary and other schools for Christians and heathen at Rajahmundry, which are attended by a large number of pupils. The zenana workers maintain several schools for girls and women, as well as a hospital and dispensary. The mission also has a printing establishment, from which books and tracts are issued. The total receipts of the board for this work were \$39,476.64, and the expenditures \$36,865.96. The general body also decided to begin missionary operations in Puerto Rico, and since the convention 2 men have been sent to that island.

Home Missions.—The three boards—English, German, and Swedish—presented encouraging reports of their work in this country. The Board of English Missions has 20 stations under its direct control in various States from Massachusetts to Washington; the Board of German Missions has 58 congregations under its care, chiefly in the northwestern territory of Canada; the Board of Swedish Missions reported missions under its direct control in Utah, Idaho, and Montana. Besides these, most of the district synods carry on missionary operations on their own territories. The home missionary operations of this body, through its boards and synods, embraces 41 States and the Dominion of Canada, with 577 stations. These are located as follow: 133 in Pennsylvania, 40 in New York, 33 in Wisconsin, 31 in New Jersey, 28 in Illinois, 24 in Minnesota, 23 in Nebraska, 22 in Michigan, 24 in Ontario, 15 in Ohio, 12 each in Colorado, Iowa, South Dakota, and Texas, 10 each in Indiana, Kansas, and Massachusetts, 9 each in Montana and Utah, 41 in the Northwest Territories of Canada, and the rest in smaller numbers in various States and Territories. The receipts of the English and German boards amounted to \$40,680.00, and for the entire work \$104,175.97.

Sunday-school Work.—In conjunction with the Board of Publication the Committee on Sunday-school Work is developing the General Council graded Sunday-school system, and, in addition to Scripture-lesson quarterlies, is publishing an annual Teachers' Commentary, Bible Story for Teachers and Pupils, Bible History, and Bible Geography, in similar forms, as also suitable apparatus for the primary department. The total

issue of the series now exceeds 100,000 copies annually. Provision has been made for the publication of this series in German and in Swedish. In accordance with the recommendation of the committee, a standing committee on education was appointed.

Immigrant Missions.—The Board of Immigrant Missions, New York city, reported the death of the Rev. William Berkemeier, the founder and head of this work for more than a quarter of a century. The mission work among the emigrants during the past two years maintained its usual course. The number of guests was 12,425, and the receipts for the support of the work amounted to \$1,927.19. The location of the Emigrant House, on State Street, had to be changed, in view of the fact that the United States Government claimed the site for the erection of a new customhouse. The board received \$98,720 for its property, and purchased another for its use. Hereafter the Emigrant House will be No. 4 State Street.

Board of Publication.—This board reported a large extension of its work. A publication house has been purchased in Philadelphia, and, besides the publications already mentioned in connection with the report of the Committee on Sunday-school Work, it has issued English and German books and *The Lutheran*, the organ of the General Council, in a largely increased circulation. The receipts of the board amount to \$79,771.25.

Deaconess Work.—The Committee on Deaconess Work reported a quiet and steady progress of the work in this country. The deaconess institutions of the General Council are: Mary J. Drexel Home and Philadelphia Motherhouse of Deaconesses, Philadelphia, Pa.; Immanuel Deaconess Institute, Omaha, Neb.; and Milwaukee Deaconess Motherhouse, Milwaukee, Wis., in which there are 50 deaconesses and 72 probationers.

Church-book Committee.—This committee reported through its chairman, the Rev. Joseph A. Seiss, D.D., as follows: "In the matter of a common order of ministerial acts and hymnal, two joint meetings of the committees of these general bodies (General Council, General Synod, and United Synod, South) were held, the whole question discussed, and the conclusion reached to enter devoutly upon the work of preparing such orders and hymnal on the same general principles, as far as applicable, on which the common service was formed. Progress in the undertaking will necessarily be slow, but the indications are promising that a consummation so desirable is within reach. The translation of Luther's Small Catechism into a standard English version was completed by the joint committee at Wernersville, Pa., in September, 1898, and recommended for adoption by the three general bodies as the best that can be made. It was

printed in the *Lutheran Church Review*, and appears also in the minutes of the recent meeting of the General Synod, which has adopted it. It is now presented for adoption by the General Council also." It was adopted by this body also.

The next convention of this body will be held at Lima, Ohio, 1901.

The two general bodies, Synodical Conference and United Synod of the South, held no conventions. The former numbers 1,957 clergymen, 2,525 congregations, and 520,785 communicant members; and the latter 212 clergymen, 402 congregations, and 37,455 communicants. The 14 independent synods number 2,058 clergymen, 4,505 congregations, and 403,574 communicant members.

Conference of Deaconess Motherhouses.—The third Conference of Deaconess Motherhouses of the Evangelical Lutheran Church in America met in the Swedish Lutheran Deaconess Institute, established and directed by the Rev. Erik A. Fogelström, in connection with Immanuel Hospital, Omaha, Neb., on Oct. 4, 1899. Five motherhouses are connected with this conference—to wit, Philadelphia, Milwaukee, Omaha, Minneapolis, and Baltimore. Its officers are: The Rev. Adolph Spaeth, D.D., Professor of Theology in Mount Airy Seminary, Philadelphia, Pa., President; the Rev. Carl Goedel, pastor of Mary J. Drexel Home, Philadelphia, German Secretary; and the Rev. Frank P. Manhart, D.D., superintendent of Baltimore Motherhouse, English Secretary. The president presented the statistics of the Lutheran deaconess houses in America, showing that more than 200 sisters, not including the candidates in course of preparation, are connected with the various motherhouses in this country. A list of technical terms for uniform use in the English literature on the deaconess cause and in the reports of the different houses was fully discussed, and a unanimous agreement on all points was the result. It was decided that houses applying for admission to the conference must adopt the principles of the female diaconate as adopted at the first conference, held in Philadelphia, in 1896. Papers were read on the following subjects: The Relation of the Motherhouse to the Church, by the Rev. Dr. Adolph Spaeth; Service of Consecration of Deaconesses, by the Rev. Dr. Frank P. Manhart; How to Interest our Congregations in the Deaconess Cause, by the Rev. Simon R. Tollefson, pastor of the Norwegian Deaconess Institute in Minneapolis, Minn.; The Deaconess and the Trained Nurse, by the Rev. William A. Passavant, of the Milwaukee Motherhouse; and The Spirit of Cheerfulness among our Sisters, by the Rev. Carl Goedel, of the Philadelphia Motherhouse. The discussion of these topics was most enjoyable and profitable. The next convention will be held in the Baltimore Motherhouse.

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MADAGASCAR, an island colony of France, near the southeast coast of Africa, formerly a kingdom, proclaimed a French protectorate in 1885, when a French force occupied Diego Suarez, and this protectorate, at first denied, was acknowledged by the Queen on Oct. 1, 1895, after another war between the French and the Hovas, and after the suppression of an insurrection and the capture of the capital by a second expedition declared a French colony on Aug. 6, 1896. Queen Ranavalona III was deposed on Feb. 27, 1897, as the result of fresh disturbances. Great Britain recognized the French protectorate in 1890

in return for the renunciation of French consular jurisdiction in Zanzibar. The French Government gave the assurance asked for that the establishment of the protectorate should not affect the rights and immunities enjoyed by British subjects in the island. By a treaty made with the Hova Queen in 1865 Great Britain secured for British commerce most-favored-nation treatment and a stipulation that the duty on imports should never exceed 10 per cent. *ad valorem*. When the hostilities of 1894 and 1895 had resulted in the annexation of the island to France, the French Government applied the special French tariff to

THE VILLAGE OF NOSSI-BÉ, IN MADAGASCAR.

Madagascar, raising the duty on the principal British imports to 45 per cent. in 1897. In 1898 it was made 10 per cent. higher. The duties on foreign goods range from 54 to 79 per cent., while those on French imports are 4 per cent. An order of Gen. Gallieni, the Governor, that the coasting trade must be carried on in French vessels after Jan. 1, 1899, was afterward rescinded, because there were not enough French ships for the needs of commerce and of the troops as well.

The budget for 1899 shows 11,136,000 francs of receipts and 11,135,000 francs of expenditure. The area of Madagascar and adjacent islands is estimated at 591,967 square kilometres. The population of the island, according to recent estimates, does not surpass 3,500,000, of whom not more than 800,000 are of the Hova race. Antananarivo, the capital, has about 50,000 inhabitants. The value of the imports in 1898 was 21,641,000 francs, compared with 18,368,918 francs in 1897 and 13,987,931 francs in 1896. The exports in 1898 were valued at 4,960,000 francs, compared with 4,342,432 francs in 1897 and 3,605,952 francs in 1896. The chief exports in 1898 were rubber, valued at 1,282,000 francs; live cattle, 654,000 francs; hides, 637,000 francs, raffia, 561,000 francs; gold, 396,000 francs; wax, 383,000 francs; preserved meat, 265,000 francs; timber, 130,000 francs; vanilla, 113,000 francs. There are 2,800 kilometres of telegraph line.

MAINE, a New England State, admitted to the Union March 15, 1820; area, 33,040 square miles. The population, according to each decennial census since admission, was 298,269 in 1820; 399,455 in 1830; 501,793 in 1840; 583,169 in 1850; 628,278 in 1860; 626,915 in 1870; 648,936 in 1880; 661,086 in 1890. Capital, Augusta.

Government.—The following were the State officers during the year: Governor, Llewellyn Powers; Secretary of State, Byron Boyd; Treasurer, F. M. Simpson; Attorney-General, William

T. Haines; Adjutant General, John T. Richards; Superintendent of Schools, W. W. Stetson; Bank Examiner, F. E. Timberlake; Insurance Commissioner, S. W. Carr; Liquor Commissioner, James W. Wakefield; State Librarian, Leonard D. Carver; Land Agent, Charles E. Oak; Commissioner of Fish and Game, H. O. Stanley; Railroad Commissioners, Joseph B. Peaks, Benjamin F. Chadbourne, Frederic Danforth; State Topographical Survey, Leslie A. Lee, William Engel, Charles S. Hichborn; State Board of Health, C. D. Smith, President; Inland Fish and Game, Leroy T. Carleton; Commissioner of Labor and Industrial Statistics, Samuel W. Matthews; Pension Agent, E. C. Milliken; Chief Justice, John A. Peters; Supreme Court Judges, J. A. Emery, Thomas H. Haskell, Andrew P. Wiswell, S. C. Strout, A. R. Savage, William A. Fogler; State Detective, Fred A. Porter; Clerk, W. S. Choate; Census Superintendents, Elmer P. Spofford, James A. Place—all Republicans except Justice Strout.

Banks.—The first Maine savings bank was organized in 1819, and Maine now has 100 savings institutions, with about 180,000 depositors and more than \$60,000,000 deposited, paying in taxes one fifth of the State revenue. The number of depositors with a balance less than \$1,000 is 172,634; amount of deposits, \$51,378,004.77; approximate average rate of dividend, 0.0348 cents; amount of dividends paid, \$2,091,543.94; municipal taxes paid, \$16,942.02; State taxes paid, \$402,738.13. The number of savings banks on Nov. 30 was 51, with assets of \$67,521,197.05; amount deposited during the year, \$13,867,974.87. The trust and banking companies numbered 17, with a capital of \$11,802,252.29; number of depositors, 16,808; total deposits, \$8,658,376.36; interest paid on all deposits, \$161,948.21; average rate of interest, 6.54. The loan and building associations numbered 32, with a capital of \$2,975,716.47; amount paid in interest and dividends, \$2,578,-

649.72; average rate of income, 3.45. This year, for the first time since 1892, there has been a net gain in new deposits over dividends. On Oct. 29, 1898, the amount of deposits in the trust and banking companies of Maine was \$0,182,997.50, while in April, 1899, the amount was \$10,023,364.05.

The number of school children who deposited in the savings banks of the public schools in Bangor was 1,460. From Nov. 15, 1898, when the system was inaugurated, to June 17, 1899, the sum of \$2,621.05 was received by the teachers for deposit, and of this amount only \$68 was withdrawn. The number of children in the primary department who deposited their pennies was 398, while in the ninth grade there were only 18 depositors.

Finances.—The amount of cash in the State treasury Jan. 1, 1900, was \$154,723.73; temporary loan, \$150,000; due from United States Government, \$86,000; receipts for the year, about \$1,689,210; first appropriation bill for expenses, \$1,605,799.38; regular appropriations provided for in second bill, \$143,350; bonded indebtedness, \$2,203,000.

The amount of State taxes assessed for the year was \$907,950.50, being 2½ mills on each dollar of valuation; poll tax, 1 cent per poll; express tax, \$5,213.00; savings banks' tax for six months ending April 10, 1899, \$198,574.83; ending Nov. 30, 1899, \$204,163.30; tax on building and loan associations, \$255.78; telephone and telegraph companies, \$15,605.52; railroads, \$160,118.11; for expenses of Railroad Commissioners, \$11,200; on electric-light companies, \$220,545; water companies, \$524,765; gas companies, \$314,125; railroad bonds, \$14,850; amount of school and mill tax, \$573,933. Four notes of \$25,000 each were destroyed by fire in the presence of the State Treasurer, representing the temporary loan of \$100,000 made April 1, 1897, for one year, and paid by a second temporary loan for three months, which was paid at maturity, together with a registered bond for \$5,000, a bond for \$28,000, and a registered bond for \$17,000, with coupons amounting to \$444, all paid during the year. The sale of townships on which taxes of 1897 or before had not been paid took place in October, and brought prices just sufficient to pay the taxes due. The Land Agent reported the income from stumpage sold as \$8,000, which amount goes to the support of schools in the towns and plantations where the lumber is cut.

Valuation.—The total valuation of real and personal property of the State, as gathered from the assessors' reports from 385 towns on Dec. 27, 1899, was \$287,691,790, an increase of \$2,787,444 in real estate and \$404,088 in personal property. Money at interest was taxed to the amount of \$9,754,475, and live stock at \$12,316,049. The total number of polls taxed was 181,110; number not taxed, 11,172. The total number of horses reported was 131,093, with a total value of \$6,058,567; total number of three-year-old colts 2,781, value \$107,736; two-year-old colts 2,671, value \$79,844; one-year-old colts 2,003, value \$39,605; cows 143,833, value \$3,124,379; oxen 9,444, value \$452,738; three-year-olds 28,830, value \$586,629; two-year-olds 39,745, value \$578,806; yearlings 55,454, value \$444,055; sheep 256,577, value \$641,024; swine 37,089, value \$202,626; total values \$12,316,049, against \$11,832,904 last year.

The valuation of bicycles was \$312,392; carriages, \$1,257,364; musical instruments, \$1,951,578; furniture, \$1,209,291; shipping, \$2,072,385; logs and lumber, \$1,496,704; wood and bark, \$238,491. There were 435,720 bushels of oats on

10,893 acres of land, at a value of \$209,146; oats, 5,047,812 bushels on 140,270 acres, value \$1,716,256; wheat, 35,256 bushels on 1,808 acres, value \$31,378. The valuation of Portland in 1850 was \$21,000,000, and in 1899 \$37,801,200.

State Institutions.—The Industrial School for Girls was established as a State institution by act of the Legislature approved March 17, 1899, though the history of the school dates from 1867. The first building was erected in 1875, Erskine Hall was opened in January, 1886, and Baker Hall in December, 1898. The first building—Flagg-Dummer Hall—was damaged by fire on Feb. 2. The managers obtained an appropriation to remodel instead of repairing the building, but the appropriation was not used, as funds were received from other sources enough to put the building in good condition. The number of girls in the school in December, 1899, was 75; average number during the year, 70; committed during the year, 11; married, 9; discharged to friends, 6; total number received since 1895, 547, from 128 cities and towns; now in homes, 109; dismissed as incorrigible, 9; deceased, 27; escaped, 8. The expenditures during the year were \$15,999.80; balance from 1898, \$2,650.52; State appropriation, \$10,500; in the treasury December, 1899, \$4,653.47.

The total number of students in the Madawaska Training School in the autumn term of 1899 was 84; spring term, 105. The whole number of graduates is 139, while the number graduated this year was 23, of whom 22 are teaching.

The number of insane increased in the year from 733 to 747, of whom 416 were men and 331 women. There were admitted during the year 249 patients; died, 103; discharged as cured, 48; as improved, 37; total number treated during the year, 982. The special appropriation of \$15,000 was used for the construction of a steam tramway and coal pocket. A stone crusher has also been purchased and put in operation at an expense of \$1,470, the crushed rock being used to improve the streets and driveways of the grounds. A large crop of corn fodder was raised on the farm, and 3,300 bushels of potatoes. The hay crop fell short about 100 tons. The herd of cows numbered 150. The cash on hand and the receipts during the year amounted to \$203,810.99; balance at the close of the year, \$7,047.72.

The net loss in the State Prison for the current year was \$0,092.29; gain in the carriage department, \$3,237.27; in the harness department, \$2,987.27; in the broom department, \$193.05; in the furniture, \$87.35; loss in the subsistence department, \$8,115.14. The number of commitments in the year was 60, of whom 31 were natives of Maine and 7 from Canada. Two were sentenced for life, 1 for thirty-eight years, 1 for ten years, 15 for two years, and 13 for one year. On Nov. 30, 1898, there were 213 prisoners, since which time 52 have been discharged, 59 committed, 7 have been pardoned, and 4 have died, leaving 204 in the prison, with 23 in the insane department, 8 of whom are convicts. The sanitary conditions were found nearly perfect. The jail inspectors reported the total number of prisoners in the jails of the State on Dec. 30, 1899, as 526, against 750 last year; the number arrested for drunkenness, 2,901; for selling liquor, 200; for nonpayment of fines, 1,824; number of one-month sentences, 3,253; number of prisoners escaped, 13, of whom 8 were recaptured.

In 1897 and 1898 the State Library received 4,752 volumes; spent for law reports, about \$4,000; spent for other works, \$3,000. The library already contained 12,000 law reports and text-

books, 1,000 law journals and periodicals, 9,552 Government publications, 15,827 volumes of history, literature, and science, 18,000 department reports of the various States and foreign countries, 10,000 manuscripts, maps, plans, and pamphlets, besides duplicate reports and public documents intended for exchange.

The number of free public libraries has greatly increased in the past two years. Not fewer than 300 libraries are now giving out books and periodicals. The Stewart Library building, at Corinna, was dedicated and given to the town Sept. 1, 1898, and at the close of 1899 it contained 3,000 volumes. The amount raised for free public libraries in 42 cities and towns was \$24,846.88, and \$2,000 was given for the same purpose.

Schools and School Fund.—The number of pupils reported to the educational department as drawing the school fund was 209,868, and the school fund apportioned was \$516,955.09, making the rate per pupil \$2.46½. The city of Waterville gained 265 pupils in the year; Portland had 11,623 in 1898 and 13,928 in 1899; Augusta gained 50 in the year; Lewiston, 300; Brunswick, 172; and Bangor lost 52. There were 7 summer schools, with an attendance of more than 1,000. These schools were especially distinguished for three things—that the majority of those in attendance are engaged in teaching, that they are earnest and progressive in their work, and that they were composed for the most part of graduates of college or normal or high school.

Fish and Game.—The number of deer killed in the season of 1898 and shipped through Bangor was 3,032, against 2,940 in 1897; the number killed in the Rangeley region, 217; number of moose in Bangor 159, and in Rangeley 4; caribou in Bangor 59, and in Rangeley only 2. By the laws of 1899 the close time for landlocked salmon, trout, and togue is from Oct. 1 until the ice is out of the ponds in the spring, except on the St. Croix river and its tributaries and in the waters of Kennebec County, where the close time is from Sept. 15 until the ice is out; white perch from April 1 to July 1. Ice fishing is prohibited in all the lakes, ponds, and their tributaries of Franklin, Kennebec, Oxford, and Somerset Counties.

The commissioners have power to grant permission to take eels, suckers, cusk, pickerel, and whitefish in closed waters. The open season on partridge and woodcock begins Sept. 15, and a person may send a pair of these birds without accompanying them on payment of 50 cents. The close time on muskrat is from May 1 to Oct. 15. Any person that kills or has in his possession birds known as larks, robins, swallows, sparrows, woodpeckers, or orioles forfeits not less than \$1 and not more than \$5; and not less than \$1 and not more than \$10 is the forfeit for destroying a nest, an egg, or the young of these birds. The close time on moose is from Dec. 1 to Oct. 15. The term "calf moose" is construed to mean until one year old or until they have two tines or prongs to their horns. The close time on deer is from Dec. 15 to Oct. 1, and "from Sept. 1 to Oct. 1 a person may take, catch, and kill one deer for food purposes only, to be consumed in the locality where taken, provided such persons have a license therefor." Keepers of sporting camps, lodges, or places of resort for inland hunting or fishing and those engaged in hunting or trapping fur-bearing animals must procure a license and pay the fee required. No person shall in any manner hunt, catch, take, kill, or destroy any caribou for six years from Oct. 15, 1899.

Ice.—The total ice crop along the Kennebec river during the year was 861,000 tons; shipped, 322,000 tons; carried over, 250,000 tons; crop on the Penobscot river, 203,000 tons; on the coast and interior, 216,000 tons; total ice crop, 1,322,000 tons, against 878,000 tons housed in 1898.

Indian Tribes.—The agent of the Penobscot Indians reported his appropriation overdrawn by several hundred dollars on account of the illness of the tribe during the winter of 1898-'99. The rental obtained from the shores of the islands was \$3,474.50, an increase of \$2,578 on previous rentals. The number of Indians in the tribe was 397, against 400 last year. The agent of the Passamaquoddy tribe reported many repairs to buildings during the year; number of the tribe in December, 1898, 473; births during the present year, 17; deaths, 20; present number of the tribe, 470. They raised 11,879 bushels of potatoes, 748 bushels of oats, and 110 bushels of beans and other cereals. The number of pupils at Pleasant Point was 95, and at Dana's Point 12.

Insurance.—The taxes paid to the State by insurance companies in 1898 amounted to \$26,698.04 from fire and marine companies; from life and miscellaneous companies, \$35,750.12; fees, \$12,284.50; number of fire companies admitted since last report, 13, with cash capital of \$2,900,000; withdrawn, 7; risks written by foreign fire insurance companies during the year, \$118,982,121.08; premiums received, \$1,640,351.62; losses paid, \$893,476.54; risks written by the Maine mutual fire insurance companies during the year, \$4,304,314.16; risks in force on Dec. 31, 1898, \$17,893,878.39; premiums and assessments received, \$50,912.20; losses paid, \$39,052.68; total income, \$62,177.94; total expenditures, \$55,248.81. The total number of buildings destroyed by fire during the year was 458; number partially destroyed, 934; damage to buildings, \$891,892.60; damage to contents, \$641,460.80; total insurance, \$3,944,941.43; estimated value of property burned, \$5,858,392.98; of property damaged, \$1,533,443.40. The number of policies in force at the date of the report was 60,193 life insurance, 7,439 assessment, 31,443 fraternal beneficiary, with a total amount of \$114,421,263.41; total admitted assets, \$1,350,211,955.28; total policies terminated during the year, 9,185; amount, \$4,603,005. The total assets of assessment companies was \$7,567,188.61; total liabilities, \$3,669,362.59; total number of policies in force, 193,894; written during the year, 1,312; amount, \$3,849,000.

The total income from fraternal beneficiary organizations was \$22,230,538.35; total disbursements, \$20,533,613.21; total admitted assets, \$8,482,714.58; total liabilities, \$2,584,051.07; total policies in force Dec. 31, 915,958; policies written during the year, 3,116; amount, \$3,808,000; terminated during the year, 1,787; amount, \$2,591,500.

Legislative Session.—A caucus of the Republicans of the Legislature was held, Jan. 4, to nominate a candidate to succeed Eugene Hale, and Mr. Hale was made the nominee. The Democrats met in caucus on Jan. 11 and nominated Samuel L. Lord. Mr. Hale received 27 votes in the Senate and 84 in the House, against none for Mr. Lord in the Senate and 15 in the House. Among the acts passed were the following:

For better protection of deer within the counties of Cumberland, York, and Sagadahoc.

For pensioning soldiers or sailors in the Spanish-American War who served in the quota of Maine or who were residents of the State at the time of enlistment, and who have been disabled in the service and can not provide for themselves or those dependent upon them.

For burial expenses of honorably discharged soldiers and sailors of Maine.

For the better protection of the rights of widows and widowers in the real estate of deceased husbands and wives.

For the establishment of traveling libraries and the lending of papers, books, and documents from the State Library.

Prohibiting the taking of smelts in tidal waters, except by hook and line, between April 1 and Sept. 1.

For discontinuing schools and conveying school children to other schools in certain cases.

For limiting the rate of interest on loans on personal property.

Authorizing the admission of women as attorneys.

For annexation of the city of Deering to Portland.

Liquors.—The report of the Liquor Commissioner gave the amount paid for liquors through the State agency as \$35,109.01; gallons of whisky used, 3,764; of brandy, 289; of gin, 644; of alcohol, 3,042; rum, 2,490; of wine, 538; of cherry rum, 140.

Military Affairs.—The history of the Kennebec arsenal dates from 1827, when \$15,000 was appropriated for the erection of a depot for military stores. In 1899 the military stores were valued at \$156,119.44, and the estimated value of the post was \$143,700. The expense to the State for the Spanish-American War was \$12,000, including bounties. The Legislature authorized a loan of \$100,000 to pay the bills against the State for equipments, etc., of which amount \$80,000 will be repaid by the United States Government. The total number of Maine men who died in the war was 56. The number of pensioners in the Togus Soldiers' Home on June 30 was 2,207; absent on furlough, 434; sick in hospital, 326; sleeping on floors, 141. By an act approved March 3, 1899, \$30,000 was appropriated for barracks and furniture. The contract for the new building calls for the completion of the work by June 20, 1900.

Mines.—A copper mine has been opened at Marion. The McFaul-Vose copper mine, at Smith's Mills, is the latest to yield quartz ore heavily charged with copper, 10 surface samples showing 3.97 per cent. of copper. In the Pittston gold mine, at 18 inches below the surface, the ore assayed \$17 a ton, with silver enough to pay for the work. A mine of lead and silver was discovered at Solon in the spring, and yielded \$80 in lead and \$100 in silver to the ton. A shaft 60 feet deep was sunk, and a vein of Galena ore mixed with quartz $5\frac{1}{2}$ feet wide was found.

Peddlers.—The number of registrations for 1899 was 185; number of county licenses 90, against 100 last year; State licenses 100, with 150 last year. The change in the law, allowing a taxpayer to peddle certain goods in his own town and its vicinity, has reduced the number of necessary licenses.

Pulp and Paper Mills.—There were 30 pulp mills and 28 paper mills in the State in December, 1899, comprised in 37 different plants. The operatives employed number 5,902, with an average daily wage of \$1.02. The daily output in 1895 was 2,400,000 pounds, and in 1899 it was 3,670,000 pounds; cost of wood used, \$2,500,000; amount of paper of all kinds produced daily, 600 tons; amount of ground-wood pulp, 735 tons; of sulphite pulp, 330 tons; of soda pulp, 110 tons; leather board, 60 tons; total yearly output, 550,500 tons; annual receipts, \$17,916,000; total capital invested, \$30,000,000; total amount paid for

labor yearly, \$5,000,000. Poplar wood is used by 3 companies and the rest use spruce mainly, though small quantities of fir, pine, and hemlock are also used. To make a ton of sulphite pulp requires 1,000 feet of spruce, while ground pulp requires 800 feet.

Quarries.—In the 4 slate quarries at Monson and 3 at Brownville there were many men at work in August with good wages. In the mill at Portland more than 1,000 articles are manufactured from slate. In Monson the quarry has reached 150 feet in depth, and pieces of slate have been taken out measuring 10×15 feet. The lime supply of Knox County is apparently inexhaustible, there being over 100,000 acres of limestone land in the county. Several of the quarries are putting in machines for hoisting the limestone. At one quarry a new stone wharf has been built out 50 feet from the old wooden wharf, giving 20 feet of water at medium tide. From Knox County last year 1,700,000 casks of lime were shipped.

Railroads.—The number of miles of railroads in operation Nov. 30, 1899, was 1,905.25, of which 154.17 miles were narrow gauge. There were added during the year ending June 30, 1899, 122.90 miles, and since that time 33.4 miles have been completed. The gross earnings of the steam roads operated in the State were \$8,723,218.62, and the number of passengers carried 4,908,971, a gain of 12,906 during the year; amount of freight carried, 6,539,200 tons, a gain of 892,824 tons. There were employed upon the steam railroads 7,036 persons, and the wages received were \$3,242,411.31. The mileage of street railways June 30, 1899, was 240.20, a gain of 71.48 in the year. After June 30 there were constructed 27.96 miles of road, making the total mileage of street railways on Nov. 30 268.16 miles. There were employed upon the street railways 864 persons, an increase of 139 over 1898. The wages paid amounted to \$390,250.50. The gross earnings were \$1,090,417.69, and the operating expenses \$686,419.96, to carry 18,496,374 passengers. There were 2 fatal accidents, and 7 persons were injured.

Shipping.—About 50,000 tons of new shipping were launched in Maine this year. Bath alone furnishing 40,009 tons. The fastest craft ever built in Maine was launched May 29—the torpedo boat Dahlgren. It is 147 feet long and 16 feet $4\frac{1}{2}$ inches broad, and has a displacement of about 146 tons. In the year ending June 30, 1899, there were lost at sea 78 vessels, with a total tonnage of 24,076; loss to vessels and cargo, \$3,626,235; number of persons on board, 469; number of lives lost, 204.

Lumber.—The amount of lumber cut in the winter of 1898-'99 in the Moose river region was 15,470,000 feet of saw logs and 6,150,000 feet of pulp logs; in the Moosehead lake region, 24,900 feet of saw logs and 9,400,000 feet of pulp logs; in the Dead river section, 23,050,000 feet of saw logs and 1,800,000 feet of pulp logs; in the east branch and the Kennebec, 13,850 feet of saw logs and 7,050,000 feet of pulp logs. The amount of dry pine surveyed at the port of Bangor between Jan. 1 and July 1, 1899, was 10,853,623 feet; of green pine, 708,983 feet; of spruce, 41,037,731 feet; of hemlock, 8,488,475 feet; total, 61,053,821 feet, against 48,322,706 feet in 1898 and 53,663,275 feet in 1897.

The Tramp Chair.—The town of Oakland at its spring election voted to purchase and use a peculiar chair invented for the punishment of tramps. Its chief peculiarity is in the formation of its door, which is so constructed that it follows the lines of the chair itself so closely that

when the person is seated and the door locked there is no space for change of position or rest. On the front, opposite the chin of the occupant, is a shelf for food, which can be reached through a hole in the door. When the first man to be punished was released and put into the lockup he broke out and smashed the chair before leaving town. A second chair was made and put in its place.

Topographical Survey.—The Topographical Commission began work where the United States Geological Survey had triangulated the section, near Bucksport. The sum of \$2,500 was appropriated by the State for the work of 1899, and the United States Government added a like amount. Only 432 square miles can be surveyed in a year with the present force.

Vital Statistics.—The population of Maine was 715,000 on Jan. 1, 1899, against 661,000 in 1890. The report of the Bureau of Registration gives the number of births in 1897 as 15,429; in 1896, 15,430; in 1895, 14,607; of which 7,292 were males and 7,127 females. The number of marriages in the year was 5,331. The age of the oldest groom was eighty-six; of the oldest bride, seventy-six; of the youngest bride, thirteen. There were 722 divorces, in 536 of which the wife was libellant and in 186 the husband. The deaths numbered 5,634 males and 5,606 females, 4 women and 2 men having reached the age of one hundred. The number of unmarried men in the State in 1899 was 55,976, and the number of women twenty-five years old and past unmarried was 40,907.

Political.—A special election was held June 19, 1899, for the purpose of filling the vacancy caused by the death of Nelson Dingley. It resulted in the choice of Charles E. Littlefield, Republican, against John Scott, Democrat, by a vote of 11,624 to 2,736.

MANITOBA, a western province of Canada; area, about 80,000 square miles. Population in 1897, 108,957; in 1899, 229,881. Capital, Winnipeg.

Government and Politics.—The Government met Parliament on March 16, 1899, with a large majority—two thirds of the whole house, and a popular majority in the elections of 1896 of 25,000 out of a vote of 38,000. The ministry was composed of Thomas Greenway, J. D. Cameron, Robert Watson, C. J. Mickle, and D. H. McMillan. Mr. Greenway had been in power since 1888, and had run the gantlet of three general elections. The Legislature was opened in its fourth session by Lieut.-Gov. the Hon. J. C. Patterson with a speech from the throne, of which the following were the main points:

"Never was Manitoba in as prosperous a condition as that in which she stands to-day, as is shown by the increase in the value of farm lands and of farm products generally and the steady growth of population. The province must be congratulated upon the increased immigration during the present year. It is satisfactory to note that farmers' institutes and agricultural and kindred societies have continued to be of great value to our agricultural classes, and that our great industrial fairs are attracting wide attention.

"Railway construction within the province during the past year has been carried on to a very considerable extent, and the districts affected have been very materially benefited thereby. In particular I might refer to the Swan river country, which a year ago was void of settlers, but is now a well-peopled district. A considerable portion of the railroad to the southeastern part

of the province has also been built, with great advantage to the districts through which it runs, and with a promise of great and lasting benefit to the whole province when it is completed to its objective point. The building of the Northern Pacific and Manitoba Railway branch from Belmont westward has also been highly advantageous to the farmers in that district, while the settlers along the Foxton branch of the Reston extension of the Canadian Pacific Railway have been equally benefited.

"We have reason to congratulate ourselves that so much of the land which this province is acquiring as swamp lands and otherwise is contiguous to and largely increased in value by the railroad construction of last year.

"It is gratifying to be able to refer to the fact that my Government has effected an excellent arrangement with the Dominion Government for more speedy transfer to this province of swamp lands to which it is entitled and a more economical method than heretofore. It is expected that within a very few years all these swamp lands will be under provincial control, forming an exceedingly valuable asset.

"It is, however, to be regretted that the Senate of Canada took the ground that the province was not entitled to the sum of \$300,000, for which it had made application to the Dominion Parliament to be paid out of the Manitoba school-lands funds, as we believe that such advance made in the early history and formative period of our educational system would be of far greater assistance than if given later, when our population and resources will be greater than now."

Finlay M. Young was re-elected Speaker, and the house did not adjourn until July 21. The legislation passed was not very important. The bill to amend and change the electoral divisions was the measure most discussed, in view of the coming elections and the alleged fact that certain alterations in the boundaries of constituencies made them safe for the Government candidates. The great subject of controversy during the year was the coming general election. Hugh John Macdonald, the only son of the late Conservative leader at Ottawa, Sir John Macdonald, had assumed the leadership of the oft-beaten remnant of the party in the province, and upon his personal geniality and popularity and his name the Conservatives pinned their faith and were prepared to make a strong contest. Mr. Greenway hoped to win upon his record of the establishment of an unsectarian public-school system and his personal influence as a successful farmer. On July 11 a large Conservative convention was held in Winnipeg, 85 delegates were present, and the following party platform was enthusiastically adopted:

"That the alarming condition of the finances of this province demands the introduction of such economical methods of administration as will re-establish the equilibrium between the receipts and expenditures.

"That the number of salaried ministers be reduced to three, two ministers without portfolio being added to the Cabinet for the purposes of consultation.

"That the indemnity of members be reduced to \$400.

"That the present iniquitous franchise law be repealed, and that an equitable act, based on the principle of manhood suffrage and one man one vote be enacted.

"That the alien-labor law be strictly enforced. "The encouragement of an immigration policy which will secure to the province her just pro-

portion of a desirable class of European immigrants, as well as those from the older provinces of Canada and the United States, but restrict the wholesale importation of undesirable immigrants from southern Europe.

"That the affairs of the province should be administered on ordinary business principles, without regard to political considerations, especially in so far as our educational system is concerned, which should be absolutely freed from party politics by the establishment of an independent Board of Education.

"That the province have complete control of the school lands and the proceeds of the sales of all lands that have been sold or will be sold in the future, to be used only for the purposes of supplementing the ordinary school grant as given from year to year.

"That the proper administration of justice, including the appointment of justices of the peace and other officers of justice, be from representative men independent of politics.

"That the province, provided its revenue be found sufficient for the purposes, establish and maintain an agricultural college; also a technical school, at which mechanics and others may receive a practical training.

"The adoption of the principle of Government ownership of railways, in so far as the circumstances of the province will admit, and the adoption of the principle that no bonus should be granted to any railway company which does not give the Government of the province the control of rates over lines used, together with the option of purchase.

"That demand be made for the transfer of all Crown lands within the boundaries of Manitoba to the province.

"That aid be granted to municipalities by way of guarantee of interest upon debentures when required.

"Equal rights to all.

"That an act be passed providing for compensation for injuries received by workmen in their usual employment.

"That the boundaries of the province be extended northward to Hudson Bay.

"To assume control and administration of the fisheries within her boundaries.

"That a line of railway be constructed to Hudson Bay.

"That a measure be adopted to give effect to the will of the people regarding prohibition of the liquor traffic, which measure shall go as far in the direction of prohibition as the powers of the province will allow."

During the next few months Mr. Macdonald spoke in every constituency of the province. On Nov. 16 the Legislature was formally dissolved, and Mr. Greenway issued the following appeal to the electors:

"I have the utmost confidence that my appeal to the country will, as on three previous occasions, result in the return of my Government by a sweeping majority. With reference to the great prosperity of the province during late years, I think I can fairly claim that this in some measure has been due to the legislation and administration of my Government. The development of the province by construction of railways for competitive and colonization purposes has been the consistent policy on our part throughout my administration. In the last twelve years we have secured the construction of about 1,100 miles of railroad with satisfactory results. Our attention has been continuously devoted to the problem of placing our settlers in the position of hav-

ing a readily convenient market for their products, and of securing the lowest possible freight rates to the seaboard. I think I can with propriety state that our efforts in both directions have been in a great measure successful.

"In regard to the latter question, that of freight rates, I am strongly convinced that still lower rates than now prevail can be ultimately secured. Our intention is to continue our efforts, determined to place our farmers in the best possible position in this respect. I have long maintained that grain can be profitably transported to Lake Superior at a maximum rate of 10 cents per hundred pounds. If such a rate can not be obtained over existing lines, I am in favor of turning our attention elsewhere for relief.

"I need scarcely tell you that we have been greatly disappointed at the action of the Senate of Canada in defeating the bill which had passed the House of Commons authorizing the payment to the provincial treasury of a portion of the school-lands fund after the Dominion Government had agreed to make the advance requested. I am of the opinion that the province is entitled to this fund, and to have transferred to it the whole of the school-lands reservation, to be administered by it for educational purposes. Any opposition to this policy I regard as most unjust to the settlers of the present day.

"Since the last provincial general election a judgment has been rendered by the Judicial Committee of the imperial Privy Council upon the subject of the jurisdiction of the Dominion Parliament and provincial Legislature respectively with reference to the prohibition and restriction of the liquor traffic. That judgment was considered ambiguous in some respects, and we proceeded to procure opinion of eminent counsel thereon. When the question came up for consideration during the last session of the Legislature I stated it was the intention of the Government at the next session to introduce legislation prohibiting the sale of liquor to the extent of the powers of the province in that regard, and such statement still stands as our declared policy.

"When I last appealed to you the main subject then presented for your consideration was the attack menaced by the Government of that day upon our national school system. That attack was supported by those within the province who oppose us to-day, but, despite their efforts, we succeeded in preserving the system, which will continue so long as I maintain the confidence of the electors. When returned to power it is my intention to continue on the same lines of progressive policy as in the past. I shall always hold the interests of the farmers as of paramount importance. I shall always advocate their interests and the interests of the province as my first public duty. I think it needs very little impartial consideration to come to the conclusion that the opposition to my Government is not based upon any regard for the public, but solely to gratify the ambition of men who for the most part have taken positions on important questions diametrically opposed to the best and highest interests of Manitoba."

After a keenly fought contest the poll was taken, in all but two constituencies, on Dec. 7, with the result of a majority of six for the Conservatives. Sir Charles Tupper, Mr. Foster, Mr. Clarke Wallace, and other federal leaders had helped Mr. Macdonald, while the Government had been assisted by Mr. C. Sifton, Mr. D. C. Fraser, and other Liberals from Ottawa. This result involved the early accession of Mr. Macdonald to the provincial premiership.

Finances.—On April 1 Mr. D. H. McMillan, provincial treasurer, reviewed the finances in his budget speech, of which the following are the essential portions:

"The ordinary revenue for 1898 was \$936,003.31; that is the largest revenue we have ever received. The increase is mainly shown in one item of Dominion Government subsidy. We secured the settlement of an old claim against the Dominion Government; it was for the construction of the Parliament buildings and Government House, and had been in dispute since 1886. At various times efforts had been made to secure a settlement; the late Hon. Mr. Norquay pressed the claim, and Hon. Dr. Harrison went to Ottawa and pressed it as leader of the Government, but they could never get the late Dominion Government to take it up. As soon as this Government came into office we laid the claim before them; it was admitted to be just, a bill was put through the house authorizing the Government to settle, \$267,026.45 was placed to the credit of the capital account of the province, and interest for the past thirteen years was paid in cash, \$231,306.94. So the province is \$498,333.37—in round figures, half a million dollars—better off than a year ago. This is one of the benefits the province has derived from the change of government at Ottawa. The increased capital will give a yearly subsidy of \$13,351.32, as we are entitled to receive and will receive 5 per cent. interest. Another item was the advance asked for of \$200,000 on school lands; in this there was a very large disappointment. All we received from this source last year was \$7,000 or \$8,000 interest on school-lands funds. Over half a million dollars is credited to the provinces from the proceeds of sale of school lands. This is our money, and we are entitled to administer not only the money but the lands. The grants for school purposes are increasing so rapidly, while the revenue is almost stationary, that we consider the time has arrived when we should participate in the benefit from this large sum. The value of the lands is estimated at about \$15,000,000. We represented the matter to the Dominion Government, pointing out that the grants to schools since we came into office had increased from \$65,000 to \$200,000 in one year, and that it was necessary to continue the grants in order to enable the people to maintain the schools; also that all we had received from the school-lands fund was \$83,000. The Government decided that it was to the interest of the province to give a portion of the money. A bill was introduced by the Minister of Finance to advance \$300,000; it passed the House of Commons, but it was bowled out by the Senate.

"Our receipts from provincial lands were \$22,146.23. We have a regularly established land department now. Of course, we have only swamp lands. There were sold last year 25,967 acres, at prices ranging from \$2 to \$8, averaging \$3.41 per acre.

"The expenditure for 1898 was \$836,160.23. Of this, \$81,036.30 was spent for civil government, less than in any year since 1891; for administration of justice, \$68,528.04, an increase of expenditure, for the reason that the population had increased and the criminal work was also increasing. In cash grants there was expended \$293,853.52. Of course, the largest part was grants to schools, \$205,867.81; there were also agricultural grants, \$20,749.64—namely, for electoral division agricultural societies \$13,865.14, Winnipeg Industrial Exhibition Association \$3,500, Western Agricultural and Arts Association

\$2,000, farmers' institutes, dairy and other associations \$1,384.50; charitable grants, \$33,254.56; general hospitals—Winnipeg \$15,150.30, St. Boniface \$10,303.93, Brandon \$4,882.31, Morden \$1,288.12; Salvation Army Rescue Home, \$250; Women's Home, \$250; Children's Home, \$500; St. Boniface Orphanage, \$500; Prisoner's Aid Association, \$125; public works and aid to municipalities, \$26,570.76; cash grants to municipalities, \$33,281.51; expended on colonization, roads, and bridges, \$26,570.76; maintenance of public institutions, \$95,396.81; maintenance of courthouses, jails, legislative buildings, etc., \$19,303.56; total Public Works Department expenditure, \$190,236.19. Agricultural Department expenditure and dairy instruction, \$6,929.03; diseases of animals, \$3,655.65; noxious weeds inspection, \$1,619.39; other agricultural expenditure, \$2,663.99. For immigration there was expended \$20,682.40. The advantages derived from this expenditure are very evident. We see a larger immigration set in this year than we have ever had. The efforts of the department have been very successful in the past year in Ontario and in the states south of the boundary line.

"In the estimates there are only little changes. Three hundred thousand dollars is estimated on account of school lands, and something more from swamp lands. We estimate to spend \$50,000 more in grants to public schools, making \$250,000 for this year. All the other cash grants, which have always been large under this Government, will be increased again. It is certainly to be hoped that we shall succeed in securing the assistance asked for from the Federal Government—a portion of the school-lands fund. The large grants can not be continued unless we derive some benefit from the large asset set apart for this purpose. Only 15 to 20 cents per child has been received, while the grants amount to \$4 or \$5 a child."

General Progress.—On April 1 the Attorney-General, the Hon. J. D. Cameron, reported to the Legislature important figures of municipal and general progress. The following is a summary of his statement:

Population of rural municipalities, unorganized districts, etc., 161,635; cities, towns, and villages, 68,246; total population of the province, 229,881. Number of acres in rural municipalities, 13,798,750; acres under cultivation, 2,824,929; acres wooded, 1,159,806; number of horses, 98,303; number of cattle, 219,743; number of sheep, 29,566; number of pigs, 66,565. Assessment, real and personal, in rural municipalities, \$43,134,980; in cities, etc., \$31,455,619.

Taxes for municipal purposes in rural municipalities, \$289,901.44; taxes for school purposes, \$323,148.70; debenture purposes, \$42,536.62; district and county, \$48,949.58; municipal purposes, cities, etc., \$405,755.98; school purposes, cities, etc., \$158,834; debenture purposes, cities, etc., \$20,817.21; district and county purposes, cities, etc., \$15,486.05. Total taxes imposed in 1898, rural municipalities, \$704,536.43. Assets, rural municipalities, \$1,226,647.26; liabilities, rural municipalities, \$772,548.23; assets, cities, towns, and villages, \$989,600.47; liabilities, cities, towns, and villages, \$1,124,439.01; debenture indebtedness, rural municipalities, \$484,535; debenture indebtedness, cities, etc., \$4,561,023.12.

Number of rural municipalities in the province, 74; cities, 2; towns, 11; villages, 6. Rural schools in operation, 1,002; estimated number of school children in rural districts, 40,129; in cities, towns, and villages, 8,812. Amount of annual Government grant to rural schools, \$130,000; grants and

payments to schools in cities, towns, and villages in 1898 (the number of departments being 248), \$44,883.40.

Agriculture.—The official report of the year's crops, issued in December, 1898, by the provincial Department of Agriculture, contained information as to the actual yield of the various kinds of grain and the conditions generally existing during harvest and autumn. The total yield of wheat was 25,313,745 bushels, compared with 18,261,950 bushels in 1897, an increase of 7,051,795. The area sown was increased 167,350 acres, and the average yield increased from 14.14 to 17.01 bushels an acre. Of oats, 17,308,252 bushels were raised, 6,676,739 in excess of the preceding year; the average yield was 33.6 bushels, compared with 22.7. Barley, flax, rye, peas, potatoes, and other roots were in excess of 1897. The dairy industry suffered from the good prices for wheat that prevailed, as also did hog raising. Following is a summary of the yields of the chief crops of the province in 1898: Wheat, 1,488,232 acres, 25,313,745 bushels; oats, 514,824 acres, 17,308,252 bushels; barley, 158,058 acres, 4,277,927 bushels; potatoes, 19,791 acres, 3,253,038 bushels; roots, 8,448 acres, 2,471,715 bushels.

The total grain crop of the province was 47,345,664 bushels. The number of beef cattle exported was 12,525, of which more than 7,500 came from the northwestern portion tributary to the line of the Manitoba and Northwest Railway. There were 9,500 stockers shipped to the Northwest Territories to be fattened and 20,000 shipped to the United States. The number of hogs shipped to British Columbia by the Canadian Pacific Railroad was 5,100. The number received by Winnipeg butchers and packers was 18,000. Customs returns showed that 1,919,784 pounds of pork were imported to Winnipeg from the United States. The season was favorable for all engaged in the manufacture of cheese and butter. The total of dairy products sold was \$409,455. The farmers sold 31,455 turkeys, 13,010 geese, and 127,000 chickens in the year, and expended \$1,469,000 on farm buildings. There was an increase of at least 2,500 in the number of farmers in 1898.

Miscellaneous.—The post of Chief Justice of Manitoba was given to Justice A. C. Killam. The imports into the province in 1898 were \$5,391,237, an increase of \$2,000,000 over 1897. At least 300 miles of branch railways were completed in the year, and the Government reports show an immigration of 28,000 persons, including some thousands of Doukhobers from Russia—a peculiar sect of peace-loving, well-behaved people—who were assisted by various subsidies and contributions.

MARYLAND, a Middle Atlantic State, one of the original thirteen, ratified the Constitution April 28, 1788; area, 12,210 square miles. The population, according to each decennial census, was 317,728 in 1790; 341,548 in 1800; 380,546 in 1810; 407,350 in 1820; 447,040 in 1830; 470,019 in 1840; 583,034 in 1850; 687,049 in 1860; 780,894 in 1870; 934,945 in 1880; and 1,042,390 in 1890. Capital, Annapolis.

Government.—The following were the State officers during the year: Governor, Lloyd Lowndes; Secretary of State, Richard Dallam; Comptroller, P. L. Goldsborough; Treasurer, T. J. Shryock; Adjutant General, A. L. Wilmer; Attorney-General, H. M. Claybaugh; Superintendent of Education, E. B. Prettyman; Commissioner of Insurance, F. Albert Kurtz—all Republicans except Prettyman, Democrat; Chief Judge of the Court of Appeals, James McSherry; Asso-

ciate Judges, David Fowler, A. Hunter Boyd, Henry Page, Charles B. Roberts, John P. Briscoe, S. D. Schmucker, and James A. Pearce; Clerk, Allan Rutherford—all Democrats except Schmucker and Rutherford, Republicans.

Finances.—According to the report of the Comptroller for the fiscal year ending Sept. 30, 1898, the total treasury receipts of the year aggregated \$3,095,314.22, adding to which sum the balance in the treasury Sept. 30, 1897, of \$707,138.58, and cash to the credit of the various funds of \$509,865.44, made the total receipts \$4,312,318.24, or a gain of \$622,220.08 over the preceding year. Exclusive of balances and the amount to the credit of the several sinking funds and the common free-school fund, the ordinary receipts were \$3,095,314.22, against \$2,772,055.40 for 1897, or a gain of \$323,258.82. In this gain was included \$125,000, the amount received from the military emergency fund, yet in the preceding year was included \$27,500, being the dividend on \$550,000 of the stock of the Washington branch of the Baltimore and Ohio Railroad Company, which sum was lost to the treasury this year; therefore the net gain in the ordinary receipts was \$225,758.82.

The amount received from collectors of State taxes during the year aggregated \$1,092,899.85, the largest in the history of the State, as against \$1,019,631.76 for the year previous, or a gain of \$73,268.09; and that notwithstanding the large increase in the gain of the preceding year of \$175,011.41, while the gain from tax on incorporated institutions and tax on Baltimore city stock was \$10,753.49 and \$1,915.23 respectively; hence the total gain during the year from direct taxes aggregated \$85,936.81, an augmentation specifically dedicated to the sinking funds, free books, and the public schools.

An increase of \$18,344.02 was shown in excess of fees of office, and of \$20,498.93 from tax on gross receipts of corporations, the total receipts from the latter amounting to \$191,638.98. The Comptroller says: "Even this large amount is not what it should and would be if it were not for special exemptions granted by the Legislature in years past to sundry corporations. It can not be denied that real estate bears the burden of taxation, and were it not for such exemptions, and all corporations were compelled to pay their just share of the burdens of taxation, our rate could soon be materially reduced." The several registers of wills paid into the treasury \$184,155.44, a gain of \$83,404.06 over the previous year.

The disbursements aggregated \$3,236,101.50, an excess of \$255,141.92 over the previous year, leaving a balance in the treasury proper of \$566,351.30. The receipts from all sources, increment from investments, cash transferred from the treasury and from the sale of securities held by the various sinking funds aggregated \$945,176.62. In this amount was included the sale of Baltimore city stock of the par value of \$501,200, being the entire holdings of the State in these securities, except the amounts held by the common free-school fund and the Agricultural College, said sale netting, clear of commissions, \$518,075.75, which amount deducted from the gross receipts left \$427,100.87 as the ordinary receipts during the year from increment on investments and cash transferred from the treasury, or a sum greater by \$42,633.47 than that of the year preceding. There was purchased for the defense redemption loan sinking fund stock of its own loan of the par value of \$439,952, costing \$447,877.98; hence at the close of the fiscal year the various sinking funds showed a total cash balance of \$497,298.64.

The receipts of the oyster fund, with balance on hand, aggregated \$58,227.34, the disbursements being \$55,083.92, leaving a balance on hand of \$3,143.42. The Comptroller said: "It is absolutely impossible to maintain the State fishery force upon such revenue. With the strictest economy and with a due regard for the efficiency of the same the navy can not be maintained for less than \$60,000 per annum."

The State debt aggregated \$9,284,986.24, the same as the year before. From this sum was to be deducted the available and productive assets of the State, aggregating \$1,587,470, as well as the amount of stocks, bonds, and cash to the credit of the sinking funds of \$4,064,488.75, making the total amount \$6,251,958.75, leaving as the net debt of the State at the close of the fiscal year \$3,033,027.49, as against \$2,949,978.13 for the corresponding period of the preceding year, or an increase of \$83,949.36.

The assessed value of property for State purposes amounted to \$603,326,096, a decrease of \$4,639,176. The counties showed a gain of \$65,960, while the shrinkage in Baltimore city was shown to be \$4,705,136; notwithstanding which shrinkage there was a gain of \$62,798,389 under the new or "Bankard" assessment over the basis of 1896, as made under the provisions of the assessment of 1876.

The gross receipts of the State tobacco warehouses during the year aggregated \$40,439.69; the disbursements were \$35,552.47, leaving net earnings of \$4,887.22, as against \$7,541.66 gross receipts and \$72,283.78 disbursements, with net earnings of \$6,257.88 for the year previous, or a loss in net earnings during the fiscal year of \$1,370.66.

Banks.—The 48 national banks of the State reported resources and liabilities amounting to \$20,960,604.68. Among the resources were: Loans and discounts, \$11,568,200.18; United States bonds to secure circulation, \$2,337,750; stocks, securities, etc., \$2,414,821.58; due from approved reserve agents, \$1,606,479.14; lawful money reserve, \$1,081,900.07. The individual deposits amounted to \$11,787,172.18.

Education.—The report of the Superintendent of Education for 1898 shows that the number of public schools in Baltimore was 192; in the counties, 2,273; making a total of 2,465. The number of pupils in the city schools was 94,708; in the counties, 141,295; a total of 236,003 and an increase of 6,056. The highest number enrolled in one term in the city was 67,192; in the counties, 134,924; a total of 202,116 and an increase of 12,220; average number of pupils in daily attendance, city and counties, 134,539; number of teachers, 4,987.

It was shown by the Secretary of the State Board of Education, reporting on the financial condition of the public schools for the year ending July 31, 1898, that receipts from all sources in the city of Baltimore amounted to \$1,484,518.55; in the counties, \$1,551,088.31—a total of \$3,035,606.86 and an increase of \$456,960.36. The amount paid for teachers' salaries in Baltimore was \$1,092,762.06; in the counties, \$874,195.34—a total of \$1,966,957.40 and an increase of \$93,785.75. There was paid for building, repairing, and furnishing schoolhouses a total of \$315,851.26; for books and stationery, \$141,226.39; for rent, fuel, and other incidentals, \$180,066.39. The amount received from State school tax appropriated to colored schools was \$97,884.17; from county tax, \$646,892.95.

Industries.—The average yearly output from the coal mines of the State in the past five years

is officially reported to have been about 4,838,169 tons. From the extensive increase in the annual output, and because of the improvements and greater facilities for mining and transportation, it is expected that the average yield will be greatly increased. Experts in coal mining estimated as early as 1854 that the three most important veins would furnish a total of at least 1,210,000,000 tons. Between that date and 1898 there had been taken from the coal region about 101,255,745 tons, and it was estimated that there remained to be mined about 1,108,744,255 tons. At the present rate of mining the veins now being worked could not be exhausted in less than two hundred and forty years.

The fisheries give employment to more than 41,000 persons, with an invested capital of about \$8,000,000, while the fishery products, including shellfish, were valued by the latest report at nearly \$7,000,000. Among the fish last reported caught in the waters are the alewife or menhaden, bluefish, sheepshead, butterfish, crocus, sea bass, squeteague, spot, tautog, harvest fish, black bass, brook trout, rainbow trout, sea trout, shad, summer herring, croaker, Spanish mackerel, striped bass, salt-water chub, white perch, yellow perch, rock, catfish, and others. The shad takes first place, in 1896 the catch having been 1,541,050, weighing 5,541,499 pounds, valued at \$166,551. In the menhaden fisheries Maryland holds first place among the States as to the number of fishermen employed, the capital invested, and the number of gill nets, boats, and traps. In 1896 17,607,315 pounds were taken, valued at \$126,050, or more than one fourth the value of the entire catch of the United States.

In the season of 1898-'99 5,447,814 bushels of oysters were inspected in the State, of which amount 4,271,726 bushels were inspected in Baltimore. These oysters were used for raw shipment by the packers and for local use.

Statistics showing inspections of tobacco at the State warehouses for 1898 give the total receipts at 36,210 hogsheds, and the shipments at 38,739 hogsheds. Shipments exceeded receipts by 2,529 hogsheds, due to a demand for considerable common tobacco remaining in the warehouses for several years past. Of the total shipments, 8,571 hogsheds were received from Ohio. Shipments were as follow, in hogsheds: To Bremen, 3,949; to Holland, 16,054; to Hamburg, 2,109; to Antwerp, 213; to northern Europe, 272; to France, 19,009; to England, 30; home consumption and coastwise, 5,674.

The value of canned goods exported from Baltimore in 1898 was \$1,136,766, as against \$941,729 in 1897. The price of tomatoes for the season of 1899 advanced to \$6.50 and \$7 per ton.

Political.—Six parties were in the field at the November election, and the contest was spirited. The nominations were as follow:

Republican party—For Governor, Lloyd Lowndes; for Comptroller, Phillips Lee Goldsborough; for Attorney-General, John V. L. Findlay.

Democratic party—For Governor, John Walter Smith; for Comptroller, Joshua W. Hering; for Attorney-General, Isador Rayner.

Prohibition party—For Governor, James Swann; for Comptroller, Phineas F. Ball; for Attorney-General, Finley C. Hendrickson.

Union Reform party—For Governor, William Nevin Hill; for Comptroller, William E. George; for Attorney-General, Robert Brent Walling.

Social-Democratic party—For Governor, Levin Thomas Jones; for Comptroller, Joseph C. Fowler; for Attorney-General, Charles B. Bachman.

Social-Labor party—For Governor, John A. Rugemer.

The Prohibitionists met at Baltimore in June. Their platform, after "acknowledging Almighty God as the Supreme Ruler of nations, to whose law all human enactments affecting our welfare should conform," made the following declaration of principles:

"We favor the absolute prohibition of the manufacture, sale, importation, exportation, and transportation of intoxicating liquors for beverage purposes.

"We believe that the practice of bribery of voters in this State, and the consequent corruption in politics, has become a menace to our free institutions, second only to that of the legalized liquor traffic, and merits the condemnation of every honest voter, and that we believe this practice ought to work the forfeiture of the offices gained by it.

"We condemn the army canteen, the cause of the debauchery and death of countless numbers of our soldiers, and we deplore the nullification of the law by the present administration in continuing the canteen in spite of the act passed by Congress prohibiting the same.

"Believing the liquor traffic is the barrier to every reform, and that its overthrow is the supreme issue now before the people, we invite the co-operation of all good citizens who agree upon this question, assuring them that a party composed of sober men, and uncontrolled by vicious elements, can be safely intrusted with the solution of all other questions."

The Democratic State Convention was held in Baltimore in August. The platform declared "unflinching allegiance to the fundamental principles of the party as formulated by Thomas Jefferson," announcing the belief that "the practical and constant application of those principles to Federal and State government is essential to the perpetuation of our free institutions," and then continued:

"We declare our unalterable opposition to the creation and maintenance of a large standing army in time of peace, and we insist upon the supremacy of the civil over the military authority, and we demand the strictest economy in the collection and disbursement of the public revenues.

"We view with alarm the multiplication over the land of such gigantic industrial and commercial trusts, the outgrowth of Republican legislation, as stifle competition, threaten popular government, increase the cost of living, and curtail the individual rights of the people, and we favor vigorous measures by the States and by Congress to repress this great and growing evil.

"We favor a nonpartisan administration of the police department of Baltimore, and such a thorough and careful revision of the laws in relation thereto as will emancipate the force from partisan control or intimidation.

"The laboring classes constitute the main part of our population. They should be protected in all orderly efforts to assert their rights, when endangered from any source, and all laws on this subject should be framed with a view to improve their condition.

"The Republican party depends almost entirely for its success upon the support of the large negro population in our midst, and relies upon them for the election of its ticket and the continuance of its supremacy. Without their votes it would be a hopeless minority.

"This fact has created the belief by large numbers of the worst elements of this class of our

population that political influence will readily be exerted to secure for them immunity from punishment for violations of law, has accordingly led to an alarming increase in many species of crime, and is a constant menace to the peace and good order of the State.

"Such a deplorable and dangerous condition of affairs can not be ignored or treated with indifference, and, while we distinctly pledge ourselves to do equal and exact justice to all, without regard to race, and to guarantee to the colored people of the State the fullest protection in all their rights, we are not insensible to the perils which such a situation involves, nor unmindful of the obligation which it imposes."

The platform adopted by the Republican party, which met in convention in Baltimore in September, primarily asserted that the return of the Republican party to national power on a gold platform, aided by the Dingley law, was followed by a return of confidence and prosperity, industrial activity thus proving that the people were wise in rejecting an unsound financial system; it charged that the Democratic party "still clings to the financial heresies which brought panic on the business of the country"; that "in many States that party has reaffirmed the Chicago platform, with its anarchistic tendencies"; that "in Maryland the Democratic platform is silent on silver, in deference to the platforms of the Democratic party in the other States"; and declared that "a victory for the Democratic party in Maryland upon a platform silent on the money question would be a victory for silver and a blow to prosperity." The platform continued with these specific declarations:

"We believe in the gold standard, and that all our currency should be made by law redeemable in gold coin at the option of the holder. To this faith we confidently pledge the influence and votes of the Maryland Republican members in each House of Congress.

"We continue to favor such a system of import duties as shall protect American industries and provide sufficient revenue for the expenses of government economically administered.

"We commend the record made by our country in the late war with Spain. We accord to the soldiers and sailors who survived that war our unqualified respect and esteem. For those who laid down their lives we hold the tenderest memories.

"While we deplore the insurrection in the Philippine Islands, wherein, by cession from Spain, we acquired the right of sovereignty, duty demands that we retain and pacify them, and safeguard the interests of commerce until the problem of their final disposition be solved in such manner that the glory of our flag be not sullied, nor the liberty it stands for restrained. We repose our trust for such a solution of the problem in our wise and patriotic President and the Republican majority in Congress.

"Legitimate business interests, fairly capitalized and honestly managed, have built up our industries at home, giving employment to labor as never before, and have enabled us to successfully compete with foreign countries in the markets of the world. Such industries must not be struck down by legislation aimed at the dishonestly organized trust, which stifles competition and oppresses labor.

"We are opposed to legislation merely for popular effect in reckless disregard of business revival after prolonged depression. We strongly favor laws to successfully suppress trusts and all combinations which create monopoly. It was the

Republican party which passed the Federal law against trusts, and which is enforcing it so far as State's rights permit.

"In this State the Republican party has redeemed every pledge made by it at Cambridge. Under its rule elections have for the first time in a generation been fair and free. It equalized the burdens of taxation by reassessing the taxable property of the State. It placed on the tax books \$500,000,000 of stocks and bonds never before assessed. It gave free schoolbooks to the children of the people. Ignoring partisan considerations, it conferred upon Baltimore city a new charter.

"All the party promised for the better management of State finances has been accomplished. Under the able direction of the Republican State Comptroller and Treasurer the State finances have been put in better condition than ever before. The public debt has been consolidated and refunded at a lower rate of interest, with the result that thousands of dollars will be saved to the taxpayers annually; nonproductive assets have been disposed of and the proceeds applied to the reduction of the State debt. If we are continued in power we promise to wipe out the entire State debt during the ensuing four years and to reduce the tax rate from 17½ cents on the \$100 of assessable property to 16 cents, this being a reduction of 10 per cent.

"We favor a nonpartisan administration of our schools, with minority representation on the school boards of the State, and point to the record of our chief executive in his retention and reappointment of competent men of different political faith on the boards of educational and eleemosynary institutions, never before done in this State.

"We declare our belief in the wisdom and justice of a reasonable increase in the salaries of the school teachers of this State, which is hereby recommended to the favorable consideration of the Legislature and to the proper State and county authorities.

"The oyster and crab industry gives employment and support to a large part of the population of Maryland, therefore we declare our opposition to all efforts to deprive the people of their independent and ancient rights to a full and unabridged use of the oyster and crab bottoms in the tide waters of this State.

"We pledge our party to a nonpartisan reorganization of the police department of Baltimore city, by passing a law embodying the essential features of the two bills prepared by the same organization which prepared the election and registration laws passed by the Republican Legislature in 1896."

The Democratic ticket was successful at the polls in November, the official announcement of the vote being as follows: For Governor—Smith, Democrat, 128,409; Lowndes, Republican, 116,280; Swann, Prohibitionist, 5,275; Jones, Social Democrat, 432; Rugemer, Social Labor, 420; Hill, Union Reform, 367. For Comptroller—Hering, Democrat, 127,604; Goldsborough, Republican, 116,043; Ball, Prohibitionist, 5,302; Fowler, Social Democrat, 452; George, Union Reform, 368. For Attorney-General—Rayner, Democrat, 126,593; Findlay, Republican, 116,273; Hendrickson, Prohibitionist, 5,649; Bachman, Social Democrat, 406; Walling, Union Reform, 454.

The proposed amendment to the Constitution was defeated by a vote of 42,927 against 12,630.

By the result of this election the State Senate is composed of 11 Republicans and 15 Democrats, and the House of Delegates of 25 Republicans and 66 Democrats.

MASSACHUSETTS, a New England State, one of the original thirteen; ratified the Constitution Feb. 6, 1788; area, 8,315 square miles. The population, according to each decennial census, was 378,787 in 1790; 422,845 in 1800; 472,040 in 1810; 523,159 in 1820; 610,408 in 1830; 737,099 in 1840; 994,514 in 1850; 1,231,066 in 1860; 1,457,351 in 1870; 1,783,065 in 1880; and 2,238,943 in 1890. By the State census of 1895 it was 2,500,183. Capital, Boston.

Government.—The following were the State officers in 1899: Governor, Roger Wolcott; Lieutenant Governor, William M. Crane; Secretary of State, William M. Olin; Treasurer, Edward P. Shaw; Auditor, John W. Kimball; Attorney-General, Hosea M. Knowlton; Secretary of the Board of Education, Frank A. Hill; Adjutant General, Samuel Dalton; Secretary of the Board of Agriculture, J. W. Stockwell; Insurance Commissioner, F. L. Cutting—all Republicans; Chief Justice of the Supreme Court, Walbridge A. Field, who died July 15 and was succeeded

W. MURRAY CRANE,
GOVERNOR OF MASSACHUSETTS.

by Oliver W. Holmes; Associate Justices, Marcus P. Knowlton, James M. Morton, John Lathrop, James M. Barker, John W. Hammond, and William C. Loring.

Finances.—The net debt of the State at the beginning of the year was \$13,598,964, an increase of \$1,136,585 in 1898. In four years the net debt has increased more than threefold.

Of the \$500,000 placed by the Legislature at the disposal of the Executive for war purposes, \$326,071.43 was spent in 1898. Under the act granting \$7 a month from the State to volunteers in the Spanish war \$161,103.53 was expended in that year. The Volunteer Aid Association, with the Ladies' Relief, received \$215,000 in gifts from citizens.

Banks.—In September, 1898, the national banks in the State carried loans and discounts amounting to about \$272,000,000. The deposits in savings banks were \$474,000,000.

In November Lewis Warner, who wrecked the Hampshire County National Bank and the Hampshire Savings Bank by embezzling \$500,000, was sentenced to a term in State Prison of not more than twelve nor less than nine years.

The Broadway National Bank of Boston failed on Dec. 16, and on Dec. 21 the Globe National Bank of Boston closed its doors. Ex-President Cole was arrested, charged with having embezzled \$900,000 in the course of a period covering many years.

Railroads.—Boston has now the largest railway station in the world. This is the new Southern Union Station on Summer Street, at its junction with Federal Street and Atlantic Avenue, on the west bank of Fort Point channel. The land included has an area of 1,524,000 square feet, and the buildings cover 566,280. The total length of tracks is about 15 miles, and the number of tracks entering the station 32. The whole number of trains to use the station when it is

fully opened will be 710 a day. Upon the railroad routes within 50 miles of Boston about 50,000,000 passengers are carried to and from Boston each year, nearly equally divided between the north and south stations. The close approximate population within the 50-mile limit is 2,392,000, New York only exceeding. It is probable that the total cost of the new station will be not less than \$14,000,000.

Industries.—The official report for 1898 on manufactures shows 4,700 establishments, with invested capital of more than \$413,000,000. The wages paid amount to \$2,800,000 a week. The same year there were in the State factories 7,799,872 spindles and \$110,655,603 capital invested in the manufacture of cotton goods.

In April 130,000 operatives in 120 New England cotton mills had an advance in wages averaging 10 per cent. voluntarily granted by the manufacturers.

There were strikes this year at Marlboro, Whitman, Lowell, Gloucester, Rockport, and Fall River.

Education.—Harvard had 4,860 students in all departments this year, Radcliffe had 411, and the Institute of Technology 1,171.

In regard to coeducation at Harvard the following was published in July: "President Eliot says that the recent action of the Harvard law faculty, in voting to allow women to attend Harvard Law School courses, has been misunderstood. He says the idea has obtained that both Harvard and Radcliffe are seeking what is called coeducation. He adds: 'That is not true, to the best of my knowledge and belief, with regard to either Harvard or Radcliffe. On the contrary, for what is called undergraduate work the two institutions agree in providing separate education. In arts and sciences graduates of Radcliffe are admitted to a limited extent to the instruction which Harvard provides in that department for graduates. As to professional education, neither institution has had occasion seriously to consider the subject.'"

Historical.—Marblehead celebrated its two hundred and fiftieth anniversary May 2, the Legislature having established it as an incorporated town May 2, 1649, after its separation from Salem.

Malden also celebrated its two hundred and fiftieth anniversary in May.

In December two bronze memorial tablets were placed in Doric Hall in the Statehouse. One is in memory of Charles Bulfinch, the first New England architect, and the other is commemorative of the preservation and renewal of the Massachusetts Statehouse. The tablet to Charles Bulfinch gives the dates of his chief designs, that of the Statehouse being 1795. The reconstruction was begun in 1896 and finished in 1898.

Legislative Session.—The Great and General Court assembled on Jan. 4, and on June 3 was prorogued to the first Wednesday after the first Tuesday in January, 1900. George E. Smith was President of the Senate and John L. Bates Speaker of the House.

The ballot for United States Senator, taken Jan. 17, resulted in the re-election of Senator Henry Cabot Lodge. Mr. Bruce was the candidate of the Democratic and Mr. Porter of the Socialist-Democratic members.

The Governor signed 479 bills and 103 resolutions, and vetoed 3 bills.

One of the vetoed bills exempted certain trades unions from the operation of the laws relative to fraternal beneficiary organizations, which are designed to protect the insured from unregu-

lated and irresponsible management. The bill was passed over the veto.

Another bill vetoed was one providing that in appointments under the civil-service law soldiers and sailors of the Spanish war should have preference over all others except veterans of the civil war.

A third veto, which was on a bill to restore the provision for days of grace on sight drafts and bills of exchange, abolished by the Legislature of 1898, was overridden, only 5 members in the House voting to sustain the action of the Governor, and none in the Senate.

It was enacted that all future policies of assessment companies and those previously issued that provide for payments other than stipulated premiums shall be valued and reserve be maintained upon them.

Several provisions were added to the election laws. Ballots are to be counted in view of voters, instead of within 3 feet of the rail as heretofore, and election officers may order a count according to their discretion in towns and after 2 P.M. in cities having fewer than 100,000 inhabitants. When a candidate is nominated by more than one party he may direct in what order the party designations shall be added to his name at any time within seventy-two hours after the time for filing the papers. If he does not so direct, it is left to the board to decide. Nominating conventions must be called at least forty-eight hours before the time for filing the certificates of nomination. The number of persons necessary to a caucus may be determined by the committee, and no candidate may be a caucus officer.

It was provided by amendments to the laws regarding dipsomaniacs that the applicant and witnesses for the commitment of such must be examined upon oath. The alleged dipsomaniac must be served with a summons and is entitled to a hearing, and on appeal to a superior court he may ask for submission to a jury. A dipsomaniac may not be kept in the hospital more than two years, and may be discharged sooner if the trustees regard him as cured.

Among the acts in the interest of education were: Establishing 40 scholarships at Worcester Polytechnic Institute; providing that towns may establish vacation schools, the attendance not to be compulsory and not to count on the time required by law; providing that in cities operating 450,000 spindles corporations may be organized for establishing textile schools, the mayor and city superintendent of schools must be *ex officio* members, and the city may appropriate \$25,000, to be refunded by the State.

The law relating to weekly payment of wages now applies to all engaged in building trades, public works, construction of railroads, street railways, roads, bridges, sewers, gas, water or electric-light works, pipes, or lines. Eight hours is made the limit of a day's work for city and town employees.

The limit of \$1,000,000 as the amount to which mechanical and manufacturing corporations may increase their capital is removed, and there is no restriction.

Banks are forbidden to advertise as trust companies. Savings banks may loan on the bonds of the Boston Terminal Company. Trust companies may act as fiduciaries.

A justice of the Supreme or the Superior Court may retire at the age of seventy on three fourths pay after ten years of consecutive service in either court or both courts, or, if he be incapacitated, at sixty years after fifteen years' service, on approval of the Governor and Council. A general

act was passed providing for the simplifying of criminal proceedings.

Other acts were:

Providing that one who obtains by false pretense or converts or secretes with the intention of converting the personal property of another, whether in possession or not, is guilty of larceny; but this does not apply to false pretense of ability to pay, when the payment is due after delivery, unless in signed writing.

Establishing the boundary between Massachusetts and New Hampshire and between Massachusetts and Rhode Island.

To prevent counterfeiting of trade-marks.

Making it a misdemeanor for a debt collector to wear an unusual or striking costume.

Appropriating \$50,000 additional for exhibit at the Paris Exposition.

Creating a commission for the Pan-American Exposition.

Establishing a new board of cattle commissioners, and enacting a general law for preventing spread of disease among domestic animals.

Directing that renovated butter be plainly stamped on the top, side, and bottom of original packages and on the outside of every retail package.

Requiring cities and towns to establish seals.

Providing for allowances to families of persons killed while on duty at fires, whether they are firemen, or members of a protective department, or others on duty at the request of authorities in places having no fire department.

Prescribing a fine of \$5 to \$100 against any one allowing an animal to injure a shade tree on a highway—half to go to the complainant and half to the State.

Requiring charitable corporations exempt from taxation to make annual reports to the State Board of Charities.

Requiring that illegitimate children under three years of age—instead of under one year, as heretofore—when received for board be reported to the State Board of Charities.

Making the city building-inspection law applicable to towns.

Providing that a guardian may be licensed to sell his ward's realty to pay existing mortgages.

Providing that the State Highway Commission may spend \$500,000, of which \$12,000 is to be used for machinery and \$100,000 to be reserved for use after Jan. 1, 1900; authorizing a thirty years' loan; only citizens may be employed.

Allowing commissioned militia officers in service July 1, 1897, who served in the civil war to retire with the next higher rank.

Making it unlawful to deface the United States flag or the State flag, or to use them for advertising purposes.

Making it a misdemeanor to deface a monument or tablet commemorating an historic event.

Creating a commission to publish records of soldiers and sailors in the civil war.

For purchasing for the State 500 copies of any history of State organizations in the Spanish war.

Establishing a standard for milk analysis.

Allowing the informant in cases of infraction of the fish and game laws, unless he is a paid deputy, to receive half the fines, the other half going to the State.

Providing that every Sunday shall be a close season for birds and game.

Providing for continuance of the publication of province laws.

Appropriating \$12,000 for buying portraits of State governors.

A bill requiring railroads to carry bicycles as baggage was defeated, and one requiring them to carry racing rowing shells free was reported against by the Committee on Railroads.

The Committee on Constitutional Amendments reported adversely on the resolution for woman suffrage by amendment to the Constitution, and the House rejected a bill giving to women the right to vote on the subject of liquor licenses by a vote of 94 to 51.

The following petition and resolution was introduced:

"Whereas, The General Court of Massachusetts Bay, at their session in Cambridge (Newtown), passed a sentence of banishment against Roger Williams, Oct. 19, 1635;

"Whereas, Hon. John Winthrop, Governor of Massachusetts Bay, requested that Roger Williams be recalled, his sentence revoked, and be duly honored, which was refused;

"Whereas, Roger Williams's doctrine of religious liberty, for advocating which he was banished, has become the fundamental sentiment of Christendom; be it

"Resolved, We, the citizens of Cambridge, Mass., petition the honorable Legislature at your earliest convenience to pass an act revoking said sentence of banishment, and your petitioners will ever pray God save the Commonwealth of Massachusetts."

Political.—The first party to hold a State convention this year was the Socialist-Democrat. The 58 delegates, representing 25 branches, met in Boston, May 28. The ticket named follows: For Governor, Winfield P. Porter; Lieutenant Governor, Isaac W. Skinner; Secretary of State, Charles H. Bradley; Treasurer, C. White; Auditor, A. McDonald. The principal demands in the platform were:

"Revision of our antiquated Federal Constitution in order to move the obstacles to full and complete control of the Government by all the people, irrespective of sex; public ownership of all industries controlled by monopolies, trusts, and combines; reduction of the hours of labor to eight hours per day, and further in proportion to the increasing facilities of production; labor legislation to be made national as well as local and international where possible; equal civil and political rights for women and the abolition of all laws discriminating against women; abolition of war as far as the United States are concerned, and the introduction of international arbitration instead; the right of trial by jury in case of contempt of court; a more efficient employers' liability law; self-government for cities and towns in all local affairs; the State to assume life and fire insurance."

The convention of the Prohibition party was held at Worcester, Sept. 13. The ticket was: For Governor, John W. Baer; Lieutenant Governor, James H. Roberts; Secretary of State, John B. Lewis; Treasurer, Herbert B. Griffin; Auditor, Franklin A. Palmer; Attorney-General, Sidney Perley.

The essential points of the platform were the declaration in favor of the abolition of the liquor traffic and against the saloon as the deadliest enemy of the laborer. On the issues of commerce, currency, and territorial expansion no stand was taken, the platform considering them "too important to be dealt with merely as party foot-balls, and kicked by scheming politicians backed by saloon interests." The platform favors woman's suffrage and denounces the army canteen, which, it asserts, is retained by the Government against the judgment of the superior army and

navy officers and in defiance of the laws of Congress.

The Democratic State Convention, in Boston, Sept. 21, nominated the following ticket: For Governor, Robert Treat Paine, Jr.; Lieutenant Governor, John H. Mack; Attorney-General, John H. Morrison; Auditor, W. L. Ramsdell; Secretary of State, Harry Lloyd; Treasurer, Joseph J. Flynn. Later E. Gerry Brown, a Populist, was nominated for Auditor, Mr. Ramsdell having declined.

The platform declares that the Chicago platform of 1896, "like the Declaration of Independence, stands as a part of the fundamental code of the Democratic government."

The financial plank of that instrument is particularly reiterated, and the financial ills of the five years prior to 1897 are ascribed to "a contracted currency, for which Republican financial legislation had provided no form of relief."

The Republican party is accused of planning to surrender to the banks the governmental functions of issuing paper money and controlling its volume.

"To-day our trust magnates are our bankers. They hold the bank stock, they sit on the boards of directors; they select the officials, and they will apply to their command over the supply of the nation's money the same merciless and extortionate methods which they use in turning to their own profit their present monopolies."

The war in the Philippines is characterized as criminal aggression, wanton, needless, and wasteful, and incompetently and corruptly prosecuted. It is demanded that to "the Filipinos as to the Cubans shall be said to-day that they are of right and ought to be free and independent."

The platform favors direct legislation, the initiative and referendum, the election of United States Senators by direct vote of the people, and the enforcement of an eight-hour work day, the abolition of the law granting a life tenure to members of the judiciary, the public ownership and operation of street railways, water works, and other municipal enterprises.

Delegates were chosen to the National Democratic Convention of 1900.

The People's party made no nominations, but in October the Executive Committee approved the Democratic platform. The position of the party in the State was defined as follows: "Having for three years indorsed the Democratic State Convention candidates for State offices, and having voted for them, it is well to continue doing so until the next national convention shall decide whether the national alliance of 1890 is to be continued or a new and independent departure inaugurated."

The Republican convention was held in Boston, Oct. 6. Following is the ticket: For Governor, W. Murray Crane; Lieutenant Governor, John L. Bates; Secretary of State, William M. Olin; Attorney-General, H. M. Knowlton; Auditor, John W. Kimball; Treasurer and Receiver General, Edward S. Bradford.

The platform opens with felicitation upon "the results which have followed the restoration of the Republican party to power in all the branches of the Federal Government." On the subject of national finances and the currency it says: "Bonds and notes payable in coin must be established by law to be payable in gold and provision made for supply of gold when required. The Republican party stands unreservedly pledged to maintain the existing gold standard, and we look with confidence to the Fifty-sixth Congress for the enactment of measures to so perfect our

monetary system that there shall be ample money for the expanding business of the country, and so arm and guard the Treasury that it can at all times protect the national credit."

The platform further urges the opening up of new markets for the manufactured products of the United States, the development of the merchant marine of this country, and such improvement of the principal harbors of the United States as shall make them accessible to the largest vessels afloat. On the subject of trusts the platform says:

"The Republican party of Massachusetts is unqualifiedly opposed to trusts and monopoly and the capitalization of fictitious and speculative valuations."

Confidence is expressed in the national Administration, and belief that the war in the Philippines can be brought to an early termination. Civil service reform laws are commended, and strict naturalization laws and further restriction of immigration are urged. Lynching is condemned. The resolutions close with commendation of Gov. Wolcott's administration.

The result of the election in November was the success of the Republican ticket. The vote for Governor stood: Crane, Republican, 168,902; Paine, Democrat, 100,802; Porter, Socialist-Labor, 10,778; Baer, Prohibitionist, 7,402.

In the cities, especially Haverhill, Brockton, Quincy, and Newburyport, the Socialist-Democrats made large gains on the vote of the previous State election. In the municipal elections in December also they showed strength, electing the mayor in Brockton. As a rule, the Republicans were successful in the city elections.

The Legislature of 1900 stands: Senate, 31 Republicans, 9 Democrats; House, 166 Republicans, 68 Democrats, 4 Independents, 2 Socialist-Democrats.

Following is the Executive Council: David F. Slade, William W. Davis, Oliver H. Durrell, Charles I. Quirk, George F. Harwood, S. Herbert Howe, Martin V. B. Jefferson, Parley A. Russell. Mr. Quirk is a Democrat; all the others are Republicans.

METALLURGY. At the thirtieth annual meeting of the Iron and Steel Institute Sir W. C. Roberts-Austen, referring to the present condition of practical metallurgy as compared with that at the beginning of the century, said that there were now blast furnaces which would produce 700 tons of iron daily, with a consumption of 15 hundredweight of coal per ton. The gases from blast furnaces are used as sources of heat and directly in gas engines. There are Bessemer furnaces that hold 50 tons of metal and open-hearth furnaces that also take 50 tons, while 100-ton furnaces are projected. The open-hearth furnaces are fed with one ton of material in a minute by the aid of a large spoon worked by an electro-motor. There are gigantic mixers, capable of holding 200 tons of pig iron, in which, moreover, a certain amount of preliminary purification is effected. Steel plates are rolled of more than 300 feet in area and 2 inches thick. Girders are made which justify the belief of Sir Benjamin Baker that a bridge connecting England and France might be built over the Channel in half-mile spans. We have ship plates that buckle up during a collision, but remain water tight; steel armor-piercing shot which will penetrate a thickness of steel equivalent to more than 37 inches of wrought iron, the points of the shot remaining intact, although the striking velocities are nearly 2,800 feet a second; wires that will sustain a load of 170 tons per square inch with-

out fracture. Hadfield has given us manganese steel that will not soften by annealing, while Guillaume has studied the properties of certain nickel steels that will not expand by heat, and others that contract when heated and expand when cooled. Nickel, chromium, titanium, and tungsten are freely alloyed with iron, and the use of vanadium, uranium, molybdenum, and even glucinum is suggested. Steel rails are made which will remain in use seventeen years and only lose 5 pounds per yard, though 50,500,000 tons of traffic pass over them. Huge ingots are placed in soaking pits and forged direct by 120-ton hammers or pressed into shape by 14,000-ton presses. Steel castings for parts of ships are made that weigh more than 35 tons. We electrically rivet and electrically anneal hardened ship plates that could not otherwise be drilled. Photo-micrography enables us to study the pathology of steel and to suggest remedial measures for its treatment. Ewing and Rosenhain have recognized quite recently by its aid that the plasticity of a metal is due to "slip" along the cleavage planes of crystals, and by its aid Osmond has shown that the entire structure of certain alloys can be changed by heating to so low a temperature as 225° C. The range of properties possessed by steel is wide, and by its use the efforts of a multitude of workers have been, as it were, concentrated in a few great efforts which have exerted vast influence on the progress of mankind.

Much information has been obtained regarding the structure of metals by microscopic examination. When a highly polished surface of metal is lightly etched and examined under the microscope it reveals a structure which shows that the metal is made up in general of irregularly shaped grains with well-defined bounding surfaces. The exposed face of each grain has been found to consist of a multitude of crystal facets, having a definite orientation. Seen under oblique illumination, these facets exhibit themselves reflecting the light in a uniform manner over each single grain, but in very various manners over different grains, and, by changing the angle of incidence of the light, one or another grain is made to flash out comparatively brightly over its whole exposed surface, while others become dark. The grains appear to be produced by crystallization, proceeding, more or less simultaneously, from as many centers or nuclei as there are grains, and the irregular, more or less polygonal boundaries which are seen on a polished and etched surface result from the meeting of these crystal growths. In experiments by Prof. Ewing and Walter Rosenhain to witness the behavior of the crystalline grains when the metal is subjected to strain a polished surface was watched under the microscope while the metal was gradually extended till it broke. When a piece of iron or other metal exhibiting the usual granular structure was stretched beyond its elastic limit sharp, black lines gradually appeared on the faces of the crystalline grains; of a few grains only at first, but of more as the straining was continued. On each grain they were more or less straight and parallel, but their directions were different on different grains. The appearance of each grain is so like that of a crevassed glacier that these dark lines might readily be taken for cracks. They are, however, not cracks, but slips along planes of cleavage or gliding planes. When the metal is much strained a second system of bands appears on some of the grains, crossing the first system at an angle, and in some cases showing little steps where the lines cross. These bands are considered due to

slips occurring in a second set of cleavage or gliding surfaces. Occasionally a third system of bands may be seen. When the experiment is made with a polished but unetched specimen the slip bands appear equally well. The boundaries of the grains are invisible before straining, but they can be distinguished as the strain proceeds, for the slip bands form a cross hatching that serves to mark out the surface of each grain. The slip bands are developed by compression as well as by extension. They appear, when an iron bar is twisted well beyond the elastic limit, for the most part in directions parallel and perpendicular to the axis of twist. A strip of sheet metal in the soft state when bent and unbent in the fingers shows them well developed by the extension and compression of the surface. They have been developed by the authors in iron, steel, copper, silver, gold, nickel, bismuth, tin, gun metal, and brass. They are more difficult to observe in carbon steels than in wrought iron. The experiments are believed to throw a new light on the character of plastic strain in metals and other irregular crystalline aggregates, showing that plasticity is due to slip on the part of the crystals along cleavage or gliding surfaces. It is inferred that "flow" or nonelastic deformation in metals occurs through slips within each crystalline grain of portions of the crystal on one another along surfaces of cleavage or gliding surfaces.

In a paper on the diffusion of elements in iron Prof. J. Oliver Arnold and A. M. William remarked that Sir J. Lowthian Bell and Sir Frederick Abel had shown many years ago that if steel and wrought iron were placed in close contact and heated the iron gained and the steel lost carbon. They then referred to a series of experiments made by Prof. Campbell, of Michigan, on the diffusion of sulphur through hot iron. This author's results were not concordant, but some of his data and the conclusion he deduced from them were so startling and improbable that his work was hardly deemed worthy of serious discussion by theoretical metallurgists. He had stated that pure sulphide of iron would not diffuse through hot iron, but that oxysulphide of iron diffused through it unchanged without contaminating the metal. He had therefore pointed out that the fact of a triple compound thus rapidly diffusing deprived of all its cogency the doctrine that because carbon diffused it must necessarily do so in a state of elementary solution. By experiments upon samples furnished by Prof. Campbell, illustrating each stage of his work, the authors had found that, although he seemed in error with reference to the nondiffusive power of pure sulphide of iron, the accuracy of his general conclusions was confirmed, and that he had made an important discovery in metallurgical physics. Sir W. C. Roberts-Austen had shown in 1896 that on fusing gold plates to the bases of bars of lead the gold-lead alloy interpenetrated the lead bars when they were maintained for some time at a temperature of 250° C.—a point well below the melting point of lead—and he had proved that at the end of a month the gold-lead alloy had actually traveled up to the top of the lead bars, a distance of not less than 2½ inches. These results suggested to the authors the probability of similar molecular migrations taking place in the compounds of the elements fixing in that complex metal called steel. It was necessary to conduct experiments involving the maintenance of steel at a full red heat for many hours in a vacuum, so as to avoid oxidation effects—an object for which a very simple and efficient

plan was devised. The four elements—nickel, carbon, sulphur, and phosphorus—were found capable of diffusing through solid hot iron. The authors continued describing the details of their experiments at different temperatures, and announced as their conclusion that now that it had been definitely proved that a compound could diffuse through red-hot iron the last objection to the subcarbide theory seemed to have been removed. In the discussion of the paper in the Iron and Steel Institute some doubts were expressed as to whether these investigations should be accepted as conclusive demonstrations. Mr. Hadfield thought the results would be of great value in the manufacture of armor plate.

In a communication to the British Iron and Steel Institute on the present position of the solution theory of carbonized iron Dr. A. Stansfield reached the conclusions that the carbon in molten iron is in a state of solution, and that the molecule of carbon must then contain one or two atoms, and is probably monatomic. The solidified iron is in the γ state, and contains free carbon in solution. The molecular weight of this carbon has not been discussed, but it is probably the same as that in the molten iron. The carbon in solid solution combines with iron, on cooling, to form a carbide, which is probably expressed by the formula $2(\text{Fe}_3\text{C})$. When, on further cooling, this carbide falls out of solution as cementite its formula may become more complicated—the solution theory affords no information on this point—but Sir W. Roberts-Austen stated in his presidential address that the nature of the products of its solution in acids led to the conclusion that the molecule may contain six atoms of carbon, and is at least as complex as would be indicated by the formula $6(\text{Fe}_3\text{C})$. There appears to be a belief that the solution theory is in a sense opposed and has gone far enough to supplant the older allotropic theory, but the paper shows that the solution theory of the relations of carbon and iron entirely involves the allotropic changes with which the name of Osmond is connected.

In three successive papers Baron Juptner von Jorstorff has sought to apply the laws of solution to iron and steel. He finds that carbon is dissolved as such in pure iron at a sufficiently high temperature. The molecule of the dissolved carbon between $1,600^\circ$ and $1,300^\circ$ C. consists of two atoms. It increases with decreasing temperature, and at $1,150^\circ$ C. nearly equal amounts of two-atom and three-atom molecules are present in the solution. At a still lower temperature there is in the solution, besides a certain amount of free carbon increasing with the content of carbon present, iron carbide. At first the latter remains in solution with the free carbon (austenite). If, however, its quantity increases above a certain amount, the alloy separates into two parts. In the one part the free carbon prevails; in the other the carbide of iron (martensite) prevails. With falling temperature the amount of the iron carbide increases, as does also the martensite, while the quantity of the austenite decreases until at length only martensite is present.

Iron and Steel.—The use of finely divided iron ore obtained by a concentrating process was described in a paper by Prof. J. Wiborgh, of Stockholm, read at the autumn meeting of the Iron and Steel Institute. By the introduction of the methods of separation mentioned, the power of enriching iron ores has been greatly increased, but the advantage is qualified by the circumstance that the product obtained is usually in the form of fine powder, which limits its utility to the

smelter. The paper showed how the material may be utilized by direct addition to the charges in the blast furnace, by agglomeration previous to charging in the blast furnace, as a refining or softening material in the open-hearth furnace, and for the production of sponge iron for use in the open-hearth furnace.

The "Kraft" smelting works at Stettin, Germany, are founded on a new principle, and are specially intended to produce pig iron to compete with that imported from England, Sweden, and Spain. The raw materials for producing the pig iron are iron ore, coke, air, and flux. The carbon of the coke serves three purposes in the furnaces—viz., to withdraw the oxygen from the iron ore, to char the iron thus obtained, and to produce the requisite heat. For making coke horizontal furnaces with horizontal channels are used. The finely powdered and washed British coal is put into the furnace by means of a high gangway, and the process of distillation is so conducted that it is able to stand the friction of the ore in the furnace and of the blast. The gas thus formed is used to heat the coke furnaces after the tar has been separated by cooling, and after the ammonia water has been obtained from the ammonia gas by means of suitable washing arrangements. This is manufactured into sulphate of ammonia. Considerable economies are effected by improvements in the arrangement and manipulation of the furnace. Formerly the gases which accumulated, and which consist of 75 per cent. nitrogen, 22 per cent. coal oxide, and 3 per cent. carbonic acid, were allowed to escape; now they are burned under the boiler, and the coal oxide is used to produce the steam for the blasts and the electrical machinery. Attempts have been made for some time to utilize the blast-furnace slag, which consists of calcium, aluminum, and silica. This has now been done, and the slag is used in large pieces or in cast blocks, which are as hard as granite and have a high specific weight, for streets, dikes, and bank protections. The granulated slag, which is produced by running the liquid slag in moving water, and which has a low specific weight, is used to sand the pathways and pavements and as an isolating material, etc. Bricks are made with this slag mixed with lime, which harden in from thirty-six to forty-eight hours.

The fundamental assumption of a hypothesis for the constitution of steel suggested by Prof. E. D. Campbell, of Ann Arbor, Mich., is that iron forms with carbon a series of compounds, which might properly be termed "ferrocarbons," on account of their similarity in structure to hydrocarbons. This series of ferrocarbons has the empirical formula $(\text{CFe}_3)_n$, or CnFe_3 , and should be considered as derived from the hydrocarbons of the olefine series with the general formula CnH_{2n} by the replacement of the H_2 by the bivalent groups Fe_3 . These ferrocarbons, dissolved in hydrochloric acid, yield as their primary products of solution the corresponding olefines and hydrogen.

The Demenge process of hardening steel ingots, which is in use at one of the principal steel works in France, consists in directly carburizing one of the faces of the ingot at the time of casting by lining one of the vertical sides of the mold with carburizing substances. The carburizing action is prevented from penetrating too deeply into the inside of the ingot by casting the vertical side opposite to the carburizing side. The carburization of the one face by this method is said to be quite uniform. The case-hardened surface is rather rough; but all irregularity disappears in

forging, which may be effected without special precaution and at a comparatively low temperature by the press rather than by the steam hammer.

In a paper read before the Iron and Steel Institute on the changes of structure brought about in steel by thermal and mechanical treatment Mr. A. Sauveur showed that as the smaller the grains of the metal the more ductile and tough it will be, and as the finest possible structure results from heating to Brinell's point W, the temperature at which the passage of cement carbon into hardening carbon during the heating of steel takes place—namely, from 655° to 730° C.—it is evident that every finished piece of unhardened steel should be heated to that temperature.

The difficulty of machining so hard a metal has hitherto prevented the use of manganese steel in the construction of burglar-proof safes, for which it is in other respects eminently adapted. This difficulty has been at last overcome. Experiments with gun cotton and dynamite on manganese steel plates are said to have demonstrated that the resistance of this metal to the action of explosives is unequaled by that of any other metal at present known.

In the electric welding of tram-rail joints as practiced at Buffalo, N. Y., the bar used for welding is $1 \times 3 \times 8$, and this joining of steel to steel and the increased carrying capacity owing to the bars at the joints results in a joint being a place of least resistance. The plant in operation for the purpose of welding consists of five cars. One of these is a sand-blast car that runs in advance of the welding car and prepares the joint. The other cars are the welding car, the transformer car, the motor and booster car, and a car that runs in the rear to smooth any rough places about the joint. After the welding bars are placed over the joint the jaws of the welder are applied to them, and a pressure of about 1,400 pounds is given by means of a hydraulic jack connected to the upper end. The current is then turned on, and the metal becomes brighter and brighter until the weld is completed, after which the current is turned off and the pressure is increased to about 35 tons. While under this pressure the weld is allowed to cool, after which the car is moved back about 6 inches and the jaws are applied to the other end of the bar, where the process is repeated. The other end is treated in the same manner. In other words, the center weld is made first, and then the end welds. Artificial means of cooling are used, and as the bars cool they exert a powerful influence in bringing the rail ends close, so as to make a tight joint. The current for the operation of the plant is taken from the trolley-wire service. It would be expected, from considerations of the action of heat upon metals, that rails welded in this way would buckle when they experienced a considerable rise of temperature or snap when the temperature was very low, but, as a matter of fact, welded rails neither buckle nor break. By applying immense pressure to the material during welding the length of a continuous rail made by this process is said to have no limit except the length of the line itself.

In special examinations of steel rails which had broken under traffic Mr. W. G. Kirkaldy found that the breakage resulted from failure beginning at the top, and that the deterioration was confined entirely to the top or running head. It was of the nature of a mechanical hardening of the surface under the action of the rolling load. In some cases it further developed into a species of disintegration by the formation of minute

transverse cracks, which by gradual deepening ultimately resulted in failure unless the rail was removed in time. Sir W. C. Roberts-Austen supplemented the reading of Mr. Kirkaldy's paper in the Institute of Civil Engineers with a statement of the principles that guide microphotography of steel rails. The most generally useful information regarding the structure of a steel rail is obtained by treating a highly polished surface of the section with an effusion of licorice in water, which stains the pearlite a dark tint and leaves the ferrite unacted upon. The most convenient magnification is between 100 and 150 diameters. Normal rails have thus been shown to consist of patches of pearlite set in ferrite, and, although the structure is common to all rails, the ratios of the areas differ widely, the amount of carbon increasing with the area of pearlite. If the ferrite is arranged in large, inclosed polyhedrons, the temperature to which the rail was raised before rolling was too high. The strength and intensibility increase as the size of the grain diminishes, and closely interlocking ferrite and pearlite represent the condition which most favors the prolongation of the life of the rail.

In a paper on the value of the microscope in steel working, read before the British Iron and Steel Institute, Mr. C. H. Ridsdale affirmed that the time has arrived when it should be recognized that composition only indicates such well-defined effects as are generally understood within certain narrow limits of treatment, which are termed "normal." Outside these limits the effect of the treatment far outweighs that of the composition.

It is represented that the Austrian and Russian governments print their bank notes from steel-faced electrotypes made by the electrolytic deposition of iron from a bath prepared according to the formula of Klein (ferrous and magnesium sulphates) under special conditions of temperature and current density. Herr Haber claims, in the *Zeitschrift für Elektrochemie*, that the advantage of plates prepared in this way lies in the hardness and fineness of the metal which is first deposited and in the delicacy of the copy of the original which is thus obtained.

The most remarkable magnetic effect produced by aluminum upon steel was found by Prof. Barrett to be the reduction of the hysteresis loss. The permeability of nickel steel was shown to be very much influenced by annealing. It was found that the addition of a small quantity of tungsten to iron hardly affects the maximum induction, yet increases the retentivity and coercive force. The experiments show that the best steel for making permanent magnets is one containing 7½ per cent. of tungsten.

The removal of mill scale from forgings and plates has always been a matter of considerable difficulty, as the scale is in many instances one twelfth of an inch in thickness. The usual practice is to place the iron in a solution containing 1 part of hydrochloric or sulphuric acid to 10 parts of water for from half an hour to twenty-four hours. The British Admiralty specify that all steel steam pipes, boiler and collector tubes, and all plates for boilers shall be pickled in a solution consisting of 19 parts of water and 1 of hydrochloric acid until the black oxide and scale formed during the process of manufacture are completely removed. During the process of pickling large quantities of magnetic oxide and scale become detached from the plates, which, if allowed to remain in the pickle to be further acted on by the acid, form a serious source of loss. In an invention by Mr. Sherard Cowper-Coles for

preventing or diminishing this loss a scale collector is placed within the pickling tank in any convenient position, and is connected by means of terminals to a depositing or electric-lighting dynamo. In the case of large baths two or more collectors can be employed, or only one may be used, which is moved about to different parts of the bath at suitable intervals. From time to time the scale collector is taken out and the adhering scale is removed either by breaking the circuit or by means of a suitable brush or scraper. It is claimed in behalf of this apparatus that a great saving of acid is effected when it is used; that it can be attached without any difficulty to any ordinary lead-lined pickling vat, and does not require skilled labor to look after it; that all the magnetic oxide or scale on the plate is collected almost as soon as it leaves the iron or steel, instead of being allowed to remain in the solution and be acted upon by the acid as at present; and that it opens the way to considerable economy in large works where much acid is used.

Gold and Silver.—An electrolytic apparatus recently introduced for the extraction of gold may be used, it is claimed, for freeing the metal from any auriferous material by direct chlorination and the simultaneous generation of sodium amalgam, or it may be employed as a separate generator of chlorine gas and sodium, to be used afterward in connection with gold extraction or for the electro-deposit of gold from solution.

In the assay of gold bullion at the United States Mint, as described by Alexander E. Outerbridge, the bullion is first weighed in the "deposit weigh room," and is then sent to the "deposit melting room." Here it is put into a crucible, which has been previously heated in the melting furnace, and is covered with a thin coating of borax, which forms a sort of fluid glass, and acts as a screen to protect the metal when it is molten from the oxidizing influence of the air. The fluid mass is actively stirred for the purpose of rendering it thoroughly homogeneous, and the metal is then cast into an iron mold, called a "shoe," and plunged into water to cool and to dissolve off any part of the borax glass which may have adhered to its surface. A slight loss of weight usually occurs during this process, in consequence of a partial refining out of the base metals, and the new weight is that with which the depositor is credited. In the assay or analysis the assayer first determines approximately the relative proportions of the metals existing in the alloy, and from this bases his more careful determinations. A half gramme of the alloy is weighed off and wrapped in an envelope of pure lead in the form of a bullet. The bullet is placed in a small cup made of calcined bone dust, which has been brought to a white heat. The mass melts immediately, and the lead, oxidizing rapidly by absorbing oxygen from the heated air that passes over its surface, sinks by virtue of the extreme fluidity of the oxide into the pores of the cupel, where it is absorbed rapidly, carrying with it also all the base metals that may have been originally combined with the alloy, while the precious metals, not being oxidizable, simply melt, and are not so fluid as to be capable of sinking into the cupel. A separation thus takes place, and at the moment when all the base metal is removed a beautiful "flash" is observed to take place on the surface of the metal. The "button" of purified gold and silver resulting from this operation is next weighed. The loss indicates the proportion of waste metal. Another weighing of the sample is

then made, pure silver in the form of fine granules is added in the proportion of about 2 parts of silver to 1 of gold, the alloy is inclosed in a sheet of lead and cupelled as before. The silver button remaining is laminated, coiled into a roll called a "cornet," and boiled in nitric acid. The acid dissolves the silver, leaving a little roll of nearly pure gold. This gold cornet is then annealed in the furnace to give it toughness, and is finally weighed. The weight represents the proportion of pure gold. The proportion of silver is ascertained by subtracting the weight of pure gold plus the weight of the base metal from the original weight of the assay sample.

Charcoal is used in Australia to precipitate gold on a large scale from cyanide solutions; but it appears from a paper read by Mr. J. J. Lowles at the Institute of Mining and Metallurgy, giving the details and results of the process, that the expense and inconvenience are considerably greater than in zinc or electrotpe precipitation. The chemical interaction involved in the precipitation is not understood.

The accepted theory of the chemical reactions which occur in the pan amalgamation of silver has been since the experiments of Hague that cuprous chloride is formed by the interaction of common salt, bluestone, and metallic iron, and is instrumental in reducing sulphide of silver. From a series of experiments performed by him, however, Mr. H. F. Collins finds that a chloride ore is readily treated in an iron pan without bluestone or metallic copper, the silver compounds being directly reduced by the iron. In the case of sulphide ore treatment is facilitated by the addition of sulphate of copper, which is readily reduced to metallic copper by the iron. The copper, whether amalgamated or not, acts on sulphide of silver, reducing it to metal and enabling it to be taken up by the mercury. On the other hand, cuprous chloride, a still more energetic agent in reducing sulphide of silver, never exists in the pan. In this way the comparatively bad results obtained in the treatment of sulphide ores in the presence of metallic iron are explained. The use of copper-bottomed vessels in the treatment of sulphide ores has been practiced for more than a century. In such vessels cuprous chloride is formed in considerable quantities.

Specimens of native silver accompanying matte and artificial galena, exhibited by Prof. Liveridge at the Royal Society of New South Wales, were obtained from between two courses of brickwork in the arch over the vault of an old reverberatory furnace; the upper course had been raised bodily but remained intact, and the space between became filled to a thickness of about 4 inches with a layer of clean matte. The metallic silver occurred on the surfaces in the cracks and crevices of the matte and bricks.

Among experiments reported by Mr. Breakell to the Institution of Mining Engineers as bearing upon the value of Russell's modification of the hyposulphite process is one proving that the presence of copper increases the volatilization loss of silver in chloridizing roasting. On the other hand, metallic silver and sulphide of silver, which are always present, especially in badly roasted charges, are readily dissolved by hyposulphite solutions containing copper, though not readily acted on in its absence. It follows that the presence of copper should be avoided in the furnace charges, and that it may be added with advantage in the later stages of the process.

As a cheap, simple, and practical method of desilverizing copper Preparator Joseph Girard, of the Faculty of Sciences of Paris, recommends

treatment with a mixture of sulphuric and nitric acids in the proportion of 8 parts of sulphuric to 1 of nitric acid. Sulphuric acid attacks silver very slowly in the cold, and has no action on copper; while nitric acid attacks silver instantly, forming nitrate of silver, and acts violently on copper, producing nitrate of copper and large quantities of dioxide of nitrogen, which is converted on contact with the air to the peroxide. The mixture designated gives the desired effect of dissolving the silver, while the copper is not attacked. The coating of silver is converted into the nitrate and sulphate; these salts are easily precipitated, after 8 or 10 volumes of water have been added, by a few drops of hydrochloric acid. The chloride of silver is then separated by agitation. The acid liquid is drawn away by successive siphonages, and the pure salt is obtained by filtration and washing. In case colored spangles are the objects treated, the coloring varnish is removed by immersion in a bath of caustic soda or Roman potash at a temperature of 45°-50° C. The copper, not having been acted upon, is recovered by simply withdrawing it from the bath and washing. The silver is in the state of a chloride, and is reduced to the metallic state by treating with carbonate of soda or by passing a current of hydrogen over it.

Aluminum.—Some very extensive deposits of bauxite—a hydrated oxide of aluminum used largely for the extraction of the metal—have been discovered by officers of the Department of Mines in New South Wales. Hitherto, its value not having been recognized, the ore has been used largely for road making. Three samples, however, recently analyzed were found to contain respectively 58.31, 35.28, and 39.82 per cent. of alumina, the first sample being richer than the bauxite ores of France, Austria, or the United States, which are at present the main sources of supply.

The results of experiments by M. A. Ditte on the corrosion of aluminum by saline solutions show that the metal is at first vigorously attacked, but that a coherent protective layer of alumina is soon formed. In presence of air, however, the corrosion goes on, and if an aluminum plate has been immersed in a salt solution and then only imperfectly washed the attack slowly continues, the surface becoming more and more easily affected by other reagents.

Five thousand tons of aluminum electric conductors were used on railways in the United States in 1898, representing an outlay of \$2,000,000. While the conductivity of aluminum is inferior to that of copper, its weight is very much less, and while it does not solder so well its tensile strength is much greater, so that considerably longer spans can be constructed between poles.

Several explosions having been recorded within a few years past in factories where aluminum-bronze powder is ground, M. Stockmeier has made experiments with a view to ascertaining under what circumstances explosions are possible. He has found that the powder itself is stable both to shock and while being ground. When mixed with chlorate of potash it detonates when struck or by simple rubbing. It can also be detonated by means of an electric spark when shaken up in a vessel containing air. Aluminum bronze is capable of decomposing water; the quantity of hydrogen produced varies under certain conditions, such as the nature and quantity of the grease always present. The bronze powder is hygroscopic, and, according to the author's experiments, it is capable when dry of absorbing as

high as 1.40 per cent. of atmospheric moisture. Thus in grinding up 5 or 6 kilogrammes of bronze powder at 1.4 per cent. of water we can produce from 43.4 to 52.08 litres of hydrogen. This hydrogen forms with air a detonating mixture, which may be exploded by a spark produced by the passage of a stone or other foreign body through the rollers. The most effective method of preventing these explosions would be to replace the air which comes in contact with the powder by an inert gas, but this is impracticable. All risk of explosions may, however, be avoided by observing certain precautions as to the dryness of the powder, evenness of temperature, ventilation, cleanliness, etc.

Alloys.—In a review of the results of a study of some alloys with iron carbides, mainly manganese and tungsten, M. S. de Benneville says that liquid iron does not differ as a solvent from other liquids—for example, water—except in the comparatively greater complexity of its molecular structure. On the cooling of such a mass containing in combination other elements, according to the conditions of such cooling and the volume and chemical affinity (for the solvent) of such elements, the solidified mass would present a structure homogeneous throughout, through intermediate forms, to a highly segregated and crystalline condition, in which a number of definite compounds have been produced. Such definite compounds in iron are present in two forms: (1) Those common to alloys of wide range of composition, Fe₃C, and the prismatic forms found in manganese and chromium carbides, phosphides, and sulphides; and (2) compounds varying in composition from one alloy to another, and dependent within narrow limits on the conditions of cooling, and often on the immediately surrounding magnesia from which the constituents are drawn. Such are the granular residues, differing only in degree from the ground mass of the alloy. With the ground mass of the alloy, directly comparable with vitreous structure of basalt, there is found a regular gradation in iron alloys, and they are to be classed according to the amount of differentiation undergone. Iron carbides tend to form homogeneous masses, in which definite compounds are of minor importance, the great bulk of the alloy entering into the ground mass. Rapid cooling preserves this structure. Slow cooling promotes crystallization. Owing to the tendency to form ground mass, iron carbides are more subject to control even in presence of elements with which iron forms inert compounds; if present in small quantity, limits of homogeneity are comparatively wide. To a considerable extent this is also the case with ferro-manganese, but definite compounds (of form 1) take on a more regular form, and the granular masses constitute a considerable percentage of the total mass. In carbide with the sixth family—tungsten, molybdenum, and chromium—definite crystallized compounds are an important factor, and the dominant influence of the added element is shown in the chemical inertia of the granular residues sharply differentiating them from the soluble portion to an extent not found in iron carbide or ferro-manganese, in which the separation chemically from the ground mass is not marked. Such elements, when present in large quantity, are less capable of control.

In his fifth report to the Alloys Research Committee of the Institution of Mechanical Engineers Sir William Roberts-Austen describes a long series of investigations by means of cooling curves of the carburized iron series of alloys, usually known as steel and cast iron. He shows from

their results that these alloys behave exactly as saline solutions do, and he has thus afforded a basis for much of the hitherto somewhat obscure procedure in the industrial treatment of iron and steel.

In a new method of producing a hard-faced armor plate of uniform composition the inventor, M. Werth, manager of a large iron and steel works in France, takes advantage of the fact that by suitably controlling the process of cooling it is possible to obtain some of the newer alloys of iron and steel with nickel, cobalt, and manganese in either a hard or a malleable condition. The inventor contends for a plate having the same chemical composition throughout, the hardening of the face being effected by tempering. In the working of his process he finds that when the steel is alloyed with suitable proportions of the other metal it is possible to obtain the alloy in a hard state by heating it up to a bright red and allowing it to cool in the air; whereas if it is heated only to a dull red and cooled, it will be malleable and comparatively soft.

In a paper before the American Institute of Mining Engineers Mr. E. S. Sperry has pointed out that the occurrence of cracks during the rolling of brass is often due to the presence of impurities in the copper of the alloy. In some of his investigations the author added to a brass composition, made of 60 per cent. of pure copper and 40 per cent. of zinc, quantities of antimony varying from 0.01 per cent. to 0.65 per cent., and tested in the rolling mill the behavior of the alloys thus obtained. When the percentage of antimony reached as much as 0.02 per cent., the fracture of the rolled metal indicated its presence. The author therefore believes that the presence of antimony in electrolytic copper is the cause of the unreliability of brass in rolling.

An alloy of aluminum and magnesium considerably lighter than aluminum has been obtained by Mach. With 10 per cent. of magnesium the alloy resembles zinc; with 15 per cent., a variety of brass; and with 25 per cent., a kind of bronze. All these alloys can be soldered. The alloy of from 10 to 12 per cent. of magnesium, which has been more fully studied, is nearly as white as silver, and hard enough for a sharpened piece to cut aluminum. It can be turned, bored, and tapped, and seems to be well adapted to the making of instruments of precision, as in the mounting of lenses, graduated circles, etc.

A new form of metal, denominated "copper-steel," has been brought out in Paris. It is described as possessing a very high resistance, and can be forged like iron. It is manufactured by a process during which zinc or its alloys is employed for retaining a certain proportion of iron, nickel, or chromium in the form of oxide, and reducing and incorporating it in a state of fine division in the presence of furnace gases. A number of new alloys, it is stated, are thus obtained, and among them the metal referred to under the title designated.

The leading-in wires for attaching the carbon filament and making electric connections in electric incandescent lamps have so far been made of platinum, because that was the only metal known which had the same rate of expansion and contraction as glass, and the only one which could be used without a liability to generate a leakage of air into the bulb. It has recently been found that the coefficient of expansion of iron-nickel alloys varies according to the percentages of the two metals present, and that one containing 45 per cent. of nickel has the same rate of expansion as platinum. It may therefore be pos-

sible to use this alloy instead of platinum in the lamps.

One of the more recent applications of the X-rays has been to the study of metallic alloys. When an alloy is composed of two metals having different transparencies to the rays radiographs taken of thin plates show the separation of the two during solidification. Thus it has been observed that an alloy of aluminum and gold shows on solidification the segregation of a definite compound of the two metals, which separates in well-defined crystals.

In an investigation conducted by the German Admiralty for determining the action of sea water on alloys 9 out of 12 strips each of copper, zinc, tin, aluminum, and iron-aluminum alloys were immersed in sea water, and the remaining 3 of each set were reserved as standards. The experiments were each continued for two years, while 3 strips were withdrawn from the water at the end of eight months for testing of their physical properties and comparison with the standards. The iron, tin, and aluminum bronzes deteriorated but little, and showed no marked differences in appearance, weight, or strength, even after from two to two and a half years' immersion. When iron and tin bronzes were in contact a serious alteration of the iron material was noticed. Cast and wrought bronze behaved in a similar way. The conclusion was deduced from the tests that the corrosive action between the different metals depends on their position in the electrical scale. Thus pure aluminum bronze is practically proof against the action of sea water when in contact with metals that are electro-negative toward it. In experiments on the deterioration of certain alloys under the action of the atmosphere, it was shown that iron bronze suffered practically no injury, but alloys containing a large proportion of zinc were easily corroded.

Observations for the determination of magnetic properties have been made by Dr. S. W. Richardson upon four alloys of iron and aluminum, containing respectively 3.64, 5.44, 9.89, and 18.47 per cent. of aluminum. The alloys were used in the form of anchor rings, and were wound with primary and secondary coils separated by asbestos paper. The temperature applied ranged from -83°C. to 900°C. The chief conclusions to be drawn from the experiments may be summed up as follow: 1. The alloys behave magnetically, as though they consisted of two distinct media superposed. 2. The general roundness of the curves and their lack of abruptness near the critical point seem to indicate that the alloys are heterogeneous in structure. 3. The permeability decreases with rise of temperature near the critical point until a minimum value is reached, when further rise of temperature produces very slight diminution, if any, in the permeability. 4. The experiments suggest that the maximum value of the permeability for an alloy containing 10 per cent. of aluminum is reached at about -90°C. 5. An alloy containing 18.47 per cent. of aluminum has a critical point at about 25°C. , and gives no indication of temperature hysteresis. A second maximum on the induction curve was found at high temperatures, which becomes less and less noticeable as the field is increased.

New Processes.—The Cowper-Coles electro-galvanizing process, which has been used for coating boilers of the water-tube class and a large number of torpedo-boat destroyers, has been greatly improved recently, on account of which a number of plants employing it have been remodeled. The system consists in using zinc dust

for regenerating the electrolytes, with either soluble or insoluble electrodes. The solution, which contains most free acid, and which rises to the top, flows over a wooden sill placed in one corner of the zincing tank into an overflow tank, from which it gravitates into a compressed-air tank, when air is blown in and the solution is forced up into the regenerating tanks.

Wilder's patented process for coating steel and iron consists in the use of a bath composed of zinc, tin, and aluminum. The mixture is claimed to produce a coating on iron and steel much superior to any other known. It is so firmly adherent that the sheets will stand working after it has been applied, will resist corrosion, and can be heated red hot without injury. The coating is applied by the same method as galvanizing—that is, by dipping the cleansed sheets, etc., in the melted alloy.

In the Walrand-Legeneisel steel process the castings may be made directly from the converter. The essential feature of the process is the addition of ferro-silicon containing from 10 to 12 per cent. of silicon to the charge in the converter when the flame drop takes place, and then making an after blow. The oxidation of the silicon generates a large amount of heat, which is imparted to the metal, whereby it becomes strongly superheated. The metal is very fluid, castings made with it are free from blowholes, and by the use of the process intricate castings can be made down to a fraction of a pound in weight.

An acid-blast process for etching, by Mr. Louis Edward Levy, consists essentially in the application of a powerful blast of atomized acid or other erodent in place of the customary immersion bath. Along with the means of producing the requisite blast of comminuted acid and applying it for the purpose in view is combined an arrangement for the necessary washing of the plate. The method, while primarily intended to facilitate the etching of photo-chemical-printing plates, is also applicable in all cases where the chemical erosion of metals or of glass is to be effected.

In a method of coating wood electrically with deposits of silver or copper, described by Mr. C. F. Barnes, the wooden article is first saturated with copper sulphate by immersing it in that substance; it is then removed and thoroughly dried. It is next exposed to the action of hydrogen-sulphide gas. This converts the sulphate of copper to the sulphide, which is a conductor of electricity and is insoluble in aqueous solutions. The article is then wrapped with fine copper wire and suspended in a solution of common salt at the cathode, when a current is passed. The copper sulphide is thereby speedily reduced by the action of the cathode products to metallic copper. When the reduction is supposed to be completed the article is transferred to an ordinary copper-plating bath, where a coating of copper of any desired thickness may be formed upon the surface. For silver the process is modified by immersing the object, after preliminary coppering, in the silver-plating bath.

Mr. Alexander Dick, who some time ago devised a method and a machine for forcing metals in a plastic condition through dies, has since succeeded, after many experiments, in applying his process to the making of tubes. The process is also found very suitable for the production of rods and sections of various lengths, and, owing to the pressure under which the articles are produced, they acquire, it is said, a homogeneity that can not be reached by other methods. An indication of the principle of the appli-

cation of the process is given by the statement that in the absence of atmospheric air and consequent tendencies to oxidation copper and its alloys are welded or reunited in such a manner that the structure can not be distinguished from casting.

An electrolytic process for making parabolic reflectors for search lights, described by Mr. Sherard Cowper-Coles in the British Association, consists in using a glass convex mold, on which a coating of metallic silver is chemically deposited. This coating is then polished, so as to insure the adherence of the copper backing to the silver. The mold thus prepared is placed in a suitable ring and frame and is immersed in an electrolyte of copper sulphate, where it is rotated in a horizontal position at the rate of about 15 revolutions per minute. The silver, with the firmly adhering copper, which together form the reflector, is subsequently separated from the glass mold by placing the whole in cold or lukewarm water and gradually raising the temperature of the water to 120° F., when the unequal expansion of the two substances causes a separation of the metal from the glass mold. The concave surface of the reflector obtained is an exact reproduction of the surface of the mold. It has the same brilliant polish, and requires no further treatment to answer all the purposes of a reflector, except that it must be coated with a film of some suitable metal to prevent its tarnishing. Palladium is found to answer this purpose best, as a bright coating can be deposited rapidly to any desired thickness.

Apparatus.—A paper read by Mr. A. P. Head at the annual meeting of the English Iron and Steel Institute described the tilting open-hearth furnaces that are coming into use in the United States as presenting a substantial advance in metallurgy likely to have far-reaching effects in the future of the Bessemer and open-hearth processes. It is regarded as a link between the Bessemer converter and the open-hearth furnace in that it partakes in its construction of some of the characteristics of both. The author, at the meeting of the British Iron and Steel Institute, described two forms of this furnace and an improved design. Among the advantages claimed for the tilting over the fixed furnace are that the slag can be poured off at intervals during the melting process, and that as the pouring hole of the furnace is above the level of the bath in the normal position it is never closed up, but only loosely covered to exclude the air. Consequently the time taken to open the hole before pouring and to repair and close it after pouring is saved, as well as the labor connected therewith. Further, since no injury is done to the pouring hole by opening and closing, the life of the furnace bottom is much prolonged. The cold air which enters at the end ports when the furnace is tilted is of advantage in that it chills the layer of slag on the surface of metal, thereby effectually preventing it from boiling and spurting. A considerable saving of metal is effected in the tilting furnace by the fact that every particle of metal and slag can be removed after each charge, while in the fixed furnace small pools of metal lodge in the inequalities of the bed and can not be removed. Further advantages are that in it the tapping of the charge can take place at the exact moment when the metal is of the desired composition; that in case of any hitch or accident the furnace can be instantly tilted back and the pouring stopped; that it lends itself readily to the transfer of metal from an acid to a basic furnace; that the whole body of the furnace is easy of

access for repairs or examination; and that the furnace bodies, being much stronger than those of fixed furnaces, do not become deformed. Two objections to the tilting furnace are mentioned: First, that it is somewhat more expensive than the fixed furnace; and, second, that the inlet of cold air during pouring tends to oxidize the manganese, which must be made up for by further additions in the molds.

An apparatus for casting sandless pig iron in insulated molds, so as to constitute a good crystalline fracture equal to that of the pig iron made in sand beds and at a reduced cost of production, was described by Mr. R. H. Wainford at the autumn meeting of the British Iron and Steel Institute.

A blast furnace in which gas is used instead of solid fuel, and in which it was represented that iron or steel may be produced direct from the ore, was described by the Russian metallurgist D. Tschernoff at the same meeting.

Among the methods in which electric motors are applied to the operation of machines in steel works is their use, now common, with charging and drawing machines for placing ingots and slabs in heating furnaces and of machines for charging stock into melting furnaces. A considerable development has taken place in the use of electro-magnets to lift plates, bars, and ingots. Formerly a plate was lifted by hooks catching the edges, the hooks being at the ends of chains actuated by a crane. Now the magnet is simply applied to the center of the plate, the current is switched on, and the plate is raised by the crane carrying the electro-magnet. When the plate is placed where it is wanted the switch is again turned, and the plate is released and left in position.

A new dipping needle for making magnetic surveys was described by Prof. Henry Louis at the annual meeting of the British Iron and Steel Institute. The author represented that the best points of the Swedish and American dip compass were combined in it, with a few modifications introduced by him. The instrument indicated the presence of magnetic minerals, and would be of assistance in showing the direction of prospecting operations. Prof. Bauerman, an old geological surveyor, thought it would be an admirable addition to the instruments already in use.

Miscellaneous.—The art of incrusting iron and steel with precious metals is carried on in a primitive style and by methods of considerable antiquity in Spain, at Eibar, in the province of Guipuzcoa. Very fine specimens of a great variety of patterns are turned out from the shops—jewels, umbrella handles, and trinkets of different kinds—while the designs in gold and silver are very elegant. The work is executed in four styles—*repujado*, or *repoussé*; *incrustado*, or incrusted; *damasquinado*, or damascened; and *relieve*, or relief. The *repujado* is done with the hammer and stamp, according to the workman's own taste and without any oversight, and the figures designed by him are quite original. The *incrustado* and the *damasquinado* are both executed by incrusting a gold wire in the steel; but in the *damasquinado* the surface is made absolutely smooth, while in the *incrustado* the wire projects in light relief. The relief proper is the most difficult of all to execute, and is done by only a few of the more skillful workmen. In all these styles when the work is done the object is *emparonado*, or bronzed—that is, the surface of the iron or steel is given a dark *patina*, sometimes polished and brilliant, at other times *tern*, which heightens the effect of the precious metal.

Experiments by M. Considère to test the value of iron bars when used to strengthen cement or concrete have resulted in the conclusion that material strength is added to the whole structure by such employment; and, further, that mortar when strengthened in this way can stand elongations twenty times as great as would result in breaks if no such aid was given.

An illustration of the power of galvanic action in harbors is furnished by a case recently decided in an Italian court, in which judgment was awarded against the owners of certain wooden yachts with coppered bottoms in the harbor of Leghorn on account of damage done by them to iron and steel vessels in the same harbor. The facts of the damage and of its origin in electric currents provoked by the copper-bottomed vessels were clearly established.

The composition of the new Krupp armor plate is given by Capt. O'Neill, of the Bureau of Naval Ordnance of the United States, as: Nickel, 3.5 per cent.; chromium, 1.3 per cent.; carbon, 0.2 per cent.; manganese, 0.4 per cent.; copper, 0.07 per cent.; phosphorus, 0.03 per cent.; sulphur, 0.03 per cent.; silicon, 0.15 per cent. The chromium has been added comparatively recently to assist hardening, but oil instead of water has now to be used for cooling, otherwise cracking would probably take place in the carburizing furnace.

W. Gowland opened a paper read before the Society of Antiquaries on the Early Metallurgy of Europe as illustrated by ancient remains and the primitive processes surviving in Japan by observing that few appliances of prehistoric metallurgy were simpler, either in form or construction, than the ordinary Japanese furnace. It consisted merely of a shallow hole in the ground, yet all the copper, tin, and lead required in the country had, till about thirty years ago, been extracted from their ores by means of it, and, although it was not used for iron, a skillful worker had no difficulty in producing that metal by its aid. By means of the light thrown on rudimentary smelting processes by this furnace and the method of working it, aided by the data afforded by the remains found on ancient smelting sites in Europe, by the structure of the lumps of copper found in the bronze founders' hoards, and by the characteristic features of the Roman cakes of copper found in north Wales, the evolution of the copper-smelting furnace in Europe was traced, through various stages, from the domestic fires of Neolithic man up to the low hearth of Roman times. The men of the pile dwellings in Switzerland and the upper Austrian lakes melted copper and bronze for casting by the application of heat above and to the inside, and not to the outside, of their crucibles. The development of the tin-smelting process from small, shallow trenches in the ground, in which the ore was reduced by means of wood fires, is of considerable interest, as similar trenches, with wood as fuel, continued in use in Germany for the extraction of bismuth up to the middle of the sixteenth century. The Japanese furnace for the extraction of iron from its ores, which is still in use in some districts, was in its rudeness and simplicity almost without a parallel in any region of the world. It was built of common clay, and only lasted for a single operation, when it had to be pulled down in order to extract the iron which had been produced. In Europe the early furnace seems to have been a shallow, conical hole in the ground, which at a somewhat later date took the form of a similar-shaped cavity inclosed by a wall of rough stones built on the

surface. In the Danubian basin the typical furnace, even in prehistoric times, was a small shaft furnace built in a bank of earth. Evidences were adduced by the author indicating that the introduction of the extraction of iron into Europe took place along two lines—one from Egypt to Etruria, and the other from Asia by the north of the Euxine to the Danube, and thence to central Europe. In the furnaces of either origin wrought iron, sometimes of a steely nature, was produced direct from the ores.

METEOROLOGY. Temperature.—Observations on the temperature of the free air and its variations were made every month from April, 1898, till the publication of the report by means of 90 unmanned balloons sent up from the observatory of M. Teisserenc de Bort at Trappes, France. Seven of the ascents exceeded 14,000 metres, 24 went above 13,000 metres, and 53 attained a height of 9,000 metres. The results were deduced from the discussion of the observations that the temperature at various heights presents during the course of the year important variations and greater ones than had been admitted from older series of observations made in manned balloons; that the temperature of 0° C. is found at very different altitudes, varying from the level of the ground in winter to above 4,000 metres in summer; that the isotherm of —25° C. is met with at the height of about 3,000 metres in winter and above 7,000 metres in summer—in September it was observed even above 8,000 metres; that the isotherm of —40° C. was several times found as low as 6,000 metres, and is generally met with about 9,000 metres and even higher toward the end of summer; and that the temperature of —50° C. has never been recorded below 8,000 metres. There appears to be a marked tendency to an annual variation of temperature even up to 10,000 metres, the maximum being about the end of summer and the minimum near the end of winter. The observations recorded in a table appended to M. De Bort's paper do not show such a rapid variability with height as has generally been supposed; its rate appears, further, to be modified according to the type of the weather.

In an account given in the British Association of the progress made during the preceding year at Blue Hill, Mass., in the exploration of the air with kites, Mr. A. L. Rotch said that the Hargrave kite with curved surfaces had been found more satisfactory than any other form, and that the meteorograph records temperature, humidity, height, and wind. Temperature is found to decrease at first with elevation, and afterward to increase again. The heights attained were, on the average, greater than in previous years. The United States Government had arranged for daily simultaneous observations at two heights in the case of a number of stations, using the kite for the high-level observations. The results were not quite satisfactory, because kites could not be sent up on some days, and it was suggested that on such occasions a captive balloon be employed. In the discussion of the paper Prof. Thomson said he hoped that the variation of atmospheric potential would be investigated by means of kites.

From studies of 51 mild winters experienced in Berlin during the last one hundred and eighty years Dr. C. Hellmann deduces the conclusions that such winters hardly ever occur singly, but in groups of two or three; that they are usually of long duration, from November to February or March. Severe and long late winters (till February or March) seldom occur after mild mid-

winters. In mild midwinters the greatest variations of temperature usually occur in January. After a very mild winter a warm summer is more probable than after a winter which is only moderately mild. Dr. Hellmann pleads for synoptic charts for the whole globe—at least for short intervals if longer periods can not be undertaken.

A review of extremes of temperature published in Symon's Meteorological Magazine gives the highest yearly isotherms as 85° F., a degree which is recorded in three areas—the largest in central Africa south of latitude 18° north; the other in central India, latitude 15° north; and in the northern part of South Australia. The absolute range of shade temperature in the northern hemisphere, and probably in the world, is 217.8°, a figure which is deduced from the absolute maximum of 127.4° in Algeria on July 17, 1879, and the absolute minimum of —90.4° at Werkojansk, Siberia, Jan. 15, 1885. The hottest region is on the southwestern coast of Persia, where the thermometer has not been known to fall lower than 100° F., night or day, for forty consecutive days during July and August, and often to reach 128° in the afternoon. Among the highest shade temperatures recorded are one at night during the Italian occupation of Massowah, when the thermometer is said to have recorded 122° F. Temperatures above 120° F. are occasionally met with in India; 121.5° was recorded at Dera-Ishmail-Khan (latitude 32° north) in 1882, and 126° at Bhag (latitude 29° north) in 1859. At Wilcannia, on the Darling river, New South Wales, shade temperatures varying from 107° F. to 129° F. were recorded on each day from Jan. 1 to Jan. 24 in 1896. Among the low temperatures in addition to the extremes already mentioned is —63.1° F. at Poplar river, North America. The extremes in or near London for one hundred and four years were 97.1° F. in July, 1891, and 4° in December, 1796, and January, 1841.

Clouds.—Simultaneous observations by a number of meteorological services, to continue at least one year, were begun in 1896 to determine the height and motion of the ten standard types of clouds which have been defined by the International Cloud Committee. The part of this work undertaken by the Weather Bureau of the United States has been completed, and will be published in the annual report of the bureau for 1898-'99. This work includes observations made by two theodolites placed at the ends of a long base line, giving the absolute height, velocity, and direction of motion of individual clouds at Washington, and those made with nephoscopes at 14 stations over the districts east of the Rocky mountains, giving the relative velocity and direction of motion. The discussion of the data will show the distribution and average height of each type of cloud for every day in the year, and the depth of the zone or horizontal belt in which each type may occur. Determinations have been made of the direction and velocities of the horizontal motions of the air in each of the eight principal levels on all sides of the areas of high and low pressures as they move over the United States.

The results of the measurement of cloud heights by Mr. A. W. Clayden by means of two cameras 200 feet apart show the existence of greater heights of clouds in hot weather under thunderstorm conditions. In such circumstances clouds may occur at five or six different levels, extending as high as 90,000 feet. The margins of the alto-cumulus and cirro-cumulus clouds are much higher under those conditions than the generally accepted means. A rise of cloud plains takes

place in hot weather, also during the morning and early afternoon, while the lowest altitudes are found during cyclones.

A series of cloud photographs taken by Mr. Alfred J. Henry, of the United States Weather Bureau, is valuable for giving a succession of pictures of the same clouds, showing their variations during the interval, and taken in various azimuths at different stations, so that we get the same formation viewed from different positions. They present the clouds in the form of parallel bands, resembling waves or billows, and record the slight changes in forms or groupings which they undergo from time to time as they are acted upon by slight variations in the lighter air currents, till the billowy appearance finally passes away and gives place to a sky about half covered with cirrus and cirro stratus. Nature observes concerning this method of observation that "the study of such a cloud formation as that pictured here goes a step beyond the reading of instruments, and places in our hands a powerful means by which to investigate the motion of the atmosphere. It can not have escaped general notice that this regular arrangement of streaks presents the peculiarity of covering a considerable extent of the sky almost simultaneously. On a comparatively clear sky these strips of cloud are suddenly formed, and, on the other hand, a sky uniformly covered can in a very short time break up and offer the appearance of these billow waves. This sudden origin of parallel streaks finds a complete analogy in the formation of waves over still water when a slight wind agitates the surface and it is seen to break into ripples over a considerable area. Von Helmholtz, working on this suggestion, has shown conclusively that these billow waves are due to the existence of air strata of different temperatures moving with different velocities, and are produced at the surfaces of separation of these various strata. Travelers in balloons have confirmed this theory from actual experiment, and have shown that the peculiar formation described is encountered at very various altitudes. It may be that the billow clouds are visible to us only under peculiar circumstances of moisture, but the wave motion in the invisible air is probably a most common phenomenon, and one that plays a large part in determining our weather conditions."

In a study of the amount of cloud in Europe during cyclonic and anticyclonic days Dr. C. Kessner has investigated the cloud observations at five principal stations for twenty years (1871-'90), and has followed the plan of selecting the days in each month when the readings of the barometer were lowest or highest. These days, including the days preceding and following that on which the extreme reading occurred, are those called respectively cyclonic or anticyclonic periods. The author finds that in cyclonic periods the maximum amount of cloud occurs only on the principal day in summer and autumn, while in winter and spring a large amount of cloud occurs in the evening of the preceding day as well as on the morning of the principal day. The preceding day has generally somewhat less cloud than the principal day, and almost always more than the following day. This result agrees with that deduced by the late Mr. Ley and by the Deutsche Seewarte with respect to the distribution of cloud in cyclones. In anticyclonic periods the author finds that the least cloud frequency occurs not on the principal day, but on the preceding or following day; this is especially the case at Christiania and Pavlovsk, where the least cloud occurs before the passage of the highest

barometric pressure, and then the cloudiness gradually increases. Generally speaking, however, the principal day is clearest, and next to this the preceding day; but not always, for at Buda-Pesth and Tiflis the day following that of the maximum barometric pressure has less cloud than the day preceding.

Winds.—Besides the mathematical discussions and physical researches, a considerable proportion of the labor of the International Cloud Commission in the United States in 1896 and 1897 was expended upon the determination of the stream lines and vectors of motion which occur throughout anticyclonic and cyclonic regions. An account of this work is given by Prof. Frank H. Bigelow in the *American Journal of Science*. The wind and the lower cloud circulation up to the strato-cumulus type were found to be quite the same in form, though the cloud level is rather more rounded. This movement is very independent of that of the upper cloud region, which is due eastward, or only a little sinuous over the highs and the lows. This is true of ordinary cyclones, but in the case of hurricanes for the South Atlantic States the penetration of the lower circulation into the higher is very pronounced, showing a much deeper disturbance of the air. Cyclones are very thin—only 2 or 3 miles deep—while hurricanes are certainly 5 or 6 miles deep. The anticyclonic and cyclonic areas are hardly to be considered centers of motion except in the very lowest strata, since currents of air blow across them from west to east, even in the cumulus region of the Rocky mountain districts. It is shown that remarkably long streams of air, as from the north Pacific to the lake region and from the Gulf of Mexico to the lakes, counterflow against each other to form the cyclonic circulations. We can not consider these to be due to vertical convections drawing in these masses of air by indraught, since the vertical component ceases at 2 or 3 miles high. Rather the great horizontal convections of the lower strata, caused by the interchange of air between the polar and the tropic zones, produce counter-currents at the cyclone centers, which develop vortices discharging upward into the permanent eastward drift. The fact is cited that a strong and warm current in the cumulus region blows directly from the Pacific Ocean eastward across a cold-wave area, as showing that cold waves are thin masses of air hardly 1 mile thick, produced by surface radiation on the eastern or lee side of the mountains. It is also remarkable to find that the center of the high areas formed by the isobars drawn from reductions made by the Hazen method now employed by the Weather Bureau is often 500 miles distant from that indicated by the vectors of motion.

The results of the nephoscope observations show that a slightly sinuous eastward movement prevails over the high and low areas, as in the cirrus stratum, gradually deepening as the surface is approached, till in the strato-cumulus the gyrotory movement is very marked, and in the cumulus, stratus, and wind levels it is predominant. In the cyclone the local gyrotory vectors show an inward radial component from the bottom to the top, and nothing outward in the upper strata, as Ferrel's circulation requires. They do not show a maximum velocity at a certain distance from the center with a falling off near it, as Overbeck's solution demands, but they increase from the outside up to the center. The components are strongest in the strato-cumulus region, and diminish above and below; they show a continuous inflow everywhere, together with a strong

rotation about the center, such as to cause a true vortex with discharge upward throughout. In the anticyclone on the two outer circles, 750 and 1,250 kilometres radius, there is outflow from top to bottom on all sides. Near the center there is inflow at the top, reversal at the middle, and outflow at the bottom, thus causing a reversal of gradients in the interior of the anticyclone. The entire system of high and low areas seems to be constructed by the counterflow, chiefly in the cumulus and strato-cumulus levels, of long currents, due to horizontal convection; the double action of the pressure—that is, formation of high and low pressures simultaneously in adjacent districts—being referred to the general circulation of the atmosphere, especially the deflecting and centrifugal forces, rather than to local temperature accumulations. The North American continent is the region where cyclones form in large numbers, and Europe-Asia the region where they dissipate, so that the violent general circulation over the United States in the lower strata, as compared to that of Europe, is chiefly responsible for this excess in the production near or in the United States of the local storms of the northern hemisphere. A careful study of these vectors in all strata up to 11,000 metres, or 7 miles, high shows that there is little disposition to conform to the canal theory of the circulation over the hemisphere—namely, that theory which supposes a southward movement in the lower strata from the polar zone toward the tropics, with reversal of the component from east to west at latitude 35°, together with an overflow northward in the higher strata from the tropics toward the poles. The lower strata do not move southward as a whole, and the observations do not indicate that the higher strata are vigorously moving northward; but in each stratum from the surface to the cirrus level about as much air moves north as south, for there are enormous counter-currents passing by one another at the same level, and not over one another at different elevations. This puts a new aspect on the entire problem of the general circulation.

In closing his paper on *Studies of Cyclonic and Anticyclonic Phenomena with Kites* Mr. H. Helm Clayton calls attention to the special value of kites for exploring the air up to heights of between 10,000 and 14,000 feet. "Free balloons can not serve so well, because they necessarily drift with the weather conditions by which they are surrounded, and it is impossible with them to record progressive changes and to compare them with changes recorded at a fixed point at the earth's surface beneath. Mountain stations can not serve so well, because the mountains tend to deflect currents upward, mixing air which would otherwise exist in separate strata. This upward movement might perhaps cause an adiabatic rate of cooling in the air when such a rate does not exist in free air. With captive balloons it has been impossible up to the present time (January, 1899) to reach great heights, and it seems incredible that they should ever be able to withstand such wind velocities as those encountered by the kites on Nov. 24 and 25 (1898) and yet be held safe by a cable of the necessary lightness. Captive balloons could, however, be used with great advantage as an adjunct to kites, lifting them when necessary above the light surface wind into stronger winds aloft, where they could be automatically detached. (It will be observed, in another part of this article, that M. Teisserenc de Bort reports, several months later than the date of Mr. Clayton's paper, having made observations with balloons from his observatory

at Trappes, France, to heights of from 9,000 to 14,000 metres.)

As a result of his studies with kites, Sept. 21 to 24, 1898, Mr. Clayton declares himself convinced, contrary to his previously expressed opinion, that the chief, if not all, the features of cyclones and anticyclones can be explained as having their origin within and surrounding these phenomena. In other words, he concludes that the convection theory, with certain modifications which he suggests, is the true one. Prof. W. M. Davis, on the other hand, in a paper read before the Royal Meteorological Society, Feb. 15, affirmed that it must certainly be made clear to every physical meteorologist that the conventional theory of the circulation of the atmosphere as ordinarily stated was seriously incompetent, for the most striking features in the distribution of atmospheric pressure are not accounted for by it. As long as the effect of the winds in modifying the distribution of pressure is left out of consideration no broad understanding of atmospheric processes can be reached.

Electricity.—Remarking that almost every suggestion that has ever occurred to any one as to the origin of atmospheric electricity and the part it plays in meteorology has yielded only negative results, and mentioning some of the suggestions, Prof. Cleveland Abbe concludes that the problem is too difficult for immediate solution, and must be left to another generation of physicists. On the simple question of the meteorological phenomena that are evidently associated with atmospheric electricity the best physicists do not seem as yet wholly clear as to the method of formation of lightning and auroral discharges, the phosphorescent glow of the clouds, ball lightning, and other everyday phenomena. Many questions concerning these matters crowd upon our thoughts, "but satisfactory replies can be given only after physicists have invented appropriate means of investigation. Meteorological observers may contribute to the solution of the problems by collecting both general data and special observations of exceptional phenomena, but the discussion of the data and the definitive decision by means of experimentation as to the merits of conflicting hypothetical explanations must be left to the leading physicists of the world."

M. A. B. Chauveau concludes, from comparison of curves of diurnal variations of atmospheric electricity traced at different places, (1) that the influence of the soil, which is greatest in winter, intervenes as a disturbing cause in the variation, and (2) that the general law of variation is represented by a simple oscillation having a maximum in the day and a minimum between 3.30 and 4.30 A. M. The author supposes that the principal factor in the influence of the soil is the evaporation of negatively electrified water from the surface of the earth. About thirty different theories have been proposed to explain the diurnal variations in question.

As the result of seven ascensions made for the purpose of obtaining measurements of the distribution of atmospheric electricity in clear weather and of determining whether the balloon receives electrical charges, Dr. J. Tuma finds that the potential decreases with increasing height. The positive charges are therefore accumulated in the lower strata of the atmosphere. During the last four ascents the author was unable to find that the balloons were electrically charged.

The appearance on photographs of lightning of what appeared to be dark flashes as well as

bright ones has attracted considerable attention. The phenomenon has been referred to photographic reversal, due to extreme brilliancy; to a predominance of infra-red radiations; to the existence of flashes deficient in actinic rays; to changes in the density of the air, occasioned by the spark when a dark line with a bright line within it is shown if the air is compressed and a dark line inclosing a light one if it is rarefied; and to some qualities of the photographic plate. The first real light was cast upon the subject by experiments described by Mr. A. W. Clayden, who, having photographed some electric sparks of different intensities, before developing the plates, exposed them to the diffused light of a gas flame. The brilliant sparks then yielded images which might either be called normal with a reversed margin or reversed with a normal core, while the fainter images were completely reversed—or, in other words, came out darker than the background. The "fogging" of the pictures to produce the reversal must be done after the image of the flash is impressed, for if it is done before the image appears lighter than the background. This effect, called "the Clayden effect," is accepted as a satisfactory explanation of the phenomenon by two of the authors who have most studied it—Dr. W. J. S. Lockyer and Prof. R. W. Wood, of the University of Wisconsin. Prof. Wood, on repeating Mr. Clayden's experiments, obtained dark flashes without any difficulty, but as they failed to appear when the light of an incandescent lamp was substituted for the electric spark he concludes that there is something in the spark essential to the reversal. Dr. Lockyer summarizes his conclusions by saying that dark lightning flashes "do not exist in Nature, but their appearances on photographs are due to some chemical action which takes place in the gelatin film."

A peculiar form of lightning sometimes revealed by the photograph is the ribbon flash, of which a photograph was obtained by Mr. W. H. Osborne, of Chardon, Ohio, in the summer of 1898. The picture showed three flashes, of which a distant and faint one at the right and a bright one at the left were simultaneous, while the middle one occurred a few seconds earlier. The thunder was light, yet the bright flash had come to the earth not more than 15 rods from where the observer stood. No marks of the discharge were found upon the surface of the earth. The ribbon of light (the bright flash at the left) was about 8 feet wide. It was seen to consist of 6 lines, approximately parallel, of unequal brightness, a pair of lines being at each edge and a pair near the middle. The space between these pairs was occupied by many nearly horizontal lines and a few oblique ones, while that between the right-hand pair was crossed by oblique lines only. The horizontal lines at the right of the center were curved downward; and this, with the increased brightness of the whole toward that side, suggested that the ribbon of light did not lie in a plane, but was concave toward a point at the observer's left. It was also evident that the ribbon did not stand at right angles with the line of sight, but was nearer the observer at the right-hand edge. A similar lightning flash was described and pictured in the *Electrical World* for Oct. 28, 1898, by Mr. A. F. Kennelly, who suggested a natural explanation for it based upon the condition of the air produced by the wind and by the electrical discharges passing through it. Prof. Trowbridge, of Cambridge, suggests that many apparent phenomena of lightning may be of purely optical or physiological origin.

Weather Forecasts.—The possibility of a scientific weather prediction for several days in advance has been discussed by Dr. Van Bebber, with special reference to the requirements of agriculture. Instead of dealing with the more mobile areas of barometric pressure, as is the usual way, the author keeps in view the behavior of the simpler and more persistent areas of high pressure, among which he distinguishes five principal types in Europe, according to the position of the anticyclonic lines and the direction of the depressions from them. Tables are given showing the frequency in days of the weather types during twenty years and their mean duration. The cases in which the high pressure is situated in the western half of the horizon are more frequent than those in which it lies to the eastward, especially in summer. The duration of the different types varies considerably in the twenty years' period, but the average time is about three days. Although the study refers particularly to the weather of Continental Europe, the method might be employed with advantage in other countries.

In a paper relating to polydiurnal weather types and forecasts Mr. Douglas Archibald has pointed out the existence of types of weather which persist for several days before breaking up, and for which the meteorological conditions can be definitely foreseen. These types have been discussed by Profs. Koppen and Van Bebber and the late Hon. Ralph Abercromby, who divided them into 20 specific sorts. The author shows that they may all be included as subtypes of 4 primary kinds of weather. Their average duration in England is about four days. Some of them seem to succeed other types or to recur. A science of weather types is therefore growing up by which even now the weather may, with due regard to a sudden change of type, be provisionally forecasted in general terms, and particularly for agricultural purposes, for half a week or more.

One of the great needs of the weather services of the United States and Europe, particularly with reference to forecasts, is that of stations in the oceans. The islands of the Atlantic afford sites where a few such stations might be provided, though if they were all occupied they would be long distances apart, and still have vacancies which would have to be filled before a complete service could be constituted. The Central Weather Bureau at Paris has been for several years receiving weather telegrams from the Azores, where two stations have been established by the Portuguese Government at the suggestion of the Prince of Monaco. One of these stations is on the island of San Miguel, in the eastern part of the archipelago, and the other is on the island of Flores, about 300 miles west of this. The station of San Miguel has been telegraphically connected since 1893 with several of the meteorological stations of Continental Europe, and has a supply of instruments, which are added to every year. The station at Flores, established in 1897, is about 1,200 miles from the European Continent, and, being farther advanced in the ocean, is regarded as more important than that of San Miguel. By the aid of these observations the weather stations of Europe will be able to receive notifications of important storms fifty hours in advance.

The investigations of the meteorology of the ocean by the British Meteorological Council in 1898 related to the meteorology of the southern ocean between the Cape of Good Hope and New Zealand and the meteorology of the South Atlantic and the west coast of South America. The council's report represents that the results of the

forecasts published in the morning newspapers show a complete or partial success of 81 per cent., the average for the past ten years being 81.3 per cent., while the results of the special forecasts made for the haymaking season show that 90 per cent. were useful. The success obtained for the storm warnings issued to seaports reached 91.8 per cent.

Miscellaneous.—The observations taken by the United States Weather Bureau in connection with the work of the International Cloud Commission began May 1, 1896, and ended June 30, 1897. One primary base station at Washington, D. C., and 14 nephoscopic stations distributed with an approach to uniformity throughout the territory east of the Rocky mountains were employed. The computation of the resulting data and the arrangement for the publication follow closely the prescribed forms submitted in the circulars of the commission. The possession of many new data contained in the 6,000 single theodolite observations and in the 25,000 nephoscopic observations afforded a favorable opportunity for considering several of the fundamental problems of meteorology, especially in view of the fact that they develop in the most perfect manner on the North American continent. There are still, in spite of much good work on the part of able investigators, serious gaps in the series of facts needed to construct a sound theory of the history of cyclones and anticyclones, and, furthermore, the existing theories are not in agreement either among themselves or with all the known facts. It has therefore been considered important by Prof. Frank H. Bigelow to develop the facts regarding the circulation of the air without bias at the beginning, and so far to correlate the existing mathematical analyses that their true meaning as to one another and as to the results of the observations should appear. Meteorology being sure to remain a difficult science, on account of the complications attending the physical processes and the fluid motions in the complex form presented by the atmosphere, Prof. Bigelow has attempted in the American Journal of Science to show how some of the apparent obstacles can be overcome by employing the methods used in the observations and reductions.

The height of 12,507 feet was reached at Blue Hill Meteorological Observatory on Feb. 28, 1899, by means of the Hargreave kite as improved by H. H. Clayton. The vertical height is computed by means of the formula $H = (\sin h) l / x$, in which H represents the height; h the angular altitude above the horizon, obtained by observing the kite with a surveyor's transit placed near the windlass; l the length of the line, read from the dial attached to the windlass; and x is a constant quantity, determined experimentally as a correction for the sag of the line, etc. This computation is made in about a minute, and the results are accurate within 1 per cent.

Waterspouts, according to a paper by Mr. H. C. Russell in the Royal Society of New South Wales, are frequent on the coast of that country, often occurring in groups of three or four. An unusual display was observed at Eden on May 18, 1898. In the early forenoon, during a light northwest wind, with fine weather and smooth sea, a heavy bank of cloud rose above the eastern horizon, and there was a flickering as of electrical discharges going on between the cloud and sea, but nothing to indicate what was to follow. During the morning there were 14 clear and distinct waterspouts, reaching from clouds to sea. The process of formation was a rotary motion of the waves, large quantities of broken

water being raised gradually as a white, misty-topped column, the misty part preceding the denser part by from 100 to 150 feet. This went on for three or four minutes, during which time the clouds formed an inverted cone, which seemed to be alternately dipping down and receding, with an interval of about thirty seconds between the dips, until the two cones met, and all the misty matter was absorbed. The column then remained unchanged for several minutes, while the overhanging cloud grew denser and moved slowly until the spout got out of the perpendicular and divided in the middle, the top part rising and the lower half sinking in the ocean.

By special studies of self-registering tide gauges and comparisons with the curves of self-registering barographs at points along the Atlantic coast of Canada and within the Gulf of St. Lawrence and the smaller bays Mr. F. Napier Denison finds that the minute undulations of the water are due to atmospheric waves or oscillations of barometric pressure passing over the harbors and bays. Prof. Cleveland Abbe urges the importance of the study of these oscillations directly as a meteorological problem, and then of their effects on the tides as an oceanic problem.

A discussion of the mean atmospheric pressure in Sweden for the years 1860 to 1895 by Dr. H. E. Hamberg, forming a series of papers by the Meteorological Office of Sweden in commemoration of its twenty-fifth anniversary, includes tables of monthly and yearly mean values for 34 stations and mean isobaric charts for the same periods. An examination of the annual variation shows that there are four maxima and four minima. The first maximum—that of midwinter—occurs in January and February, and is most pronounced in the south of Sweden. It is produced by the deviation of the Asiatic high pressure, which extends over parts of Europe. The second maximum occurs in spring, and is most marked in the south. It is apparently caused by the polar anticyclone, in conjunction with the high pressure over part of the north Atlantic. The subsidiary maxima occur in September and November. The first minimum occurs in March, and is very marked. It appears to be due to the low pressure over the Atlantic and to the diminution of the continental anticyclones. The second, or summer minimum, occurs in July and August. It is caused by cyclonic formations developed by the high temperature over Europe and Asia. The subsidiary minima occur in October and December.

A quantitative sunshine recorder described by Prof. Callendar differs from ordinary sunshine recorders in giving a strictly quantitative record of the amount of heat received at the earth's surface, and not merely the number of hours of bright sunshine. The instrument registers the component of sunshine in any desired direction, and gives a full record of its character and intensity. The passage of small clouds over the sun is very clearly registered, and it is found that even when the sun is obscured by clouds of sufficient thickness to prevent any trace of it burning on the ordinary cards a very considerable percentage of the sun's heat may still penetrate. The recording apparatus is identical with that required for records of temperature, pressure, voltage, etc., and may be placed in any convenient situation and at any distance from the bolometer.

METHODISTS. **Methodist Episcopal Church.**—The Methodist Yearbook for 1900 gives statistical returns from 148 conferences and other annual organizations of this body, including the

annual conferences in the United States and the domestic and foreign-mission conferences and missions, of which 124 organizations are classed as conferences, 11 as mission conferences, and 13 as missions. The aggregates are made up from the enumerations officially reported to the conferences in their annual sessions of 1899, except a small number of conferences the statistics of which, their meetings having been held late in the fall, had not become available at the time the yearbook went to press. In these cases estimates based upon the official statistics of the previous year are used: Number of ministers on trial and in full connection, including supernumeraries and superannuates, 17,583; of local preachers, 14,289; of lay members (including full members and probationers), 2,871,949, showing a decrease of 21,034; of Sunday schools, 31,836, with 346,063 officers and teachers and 2,660,339 pupils; number of churches, 26,986, having a probable value of \$116,275,007; number of parsonages, 10,931; probable value of the same, \$18,341,811.

Church Extension Society.—The General Committee of Church Extension met in Baltimore, Md., Nov. 9. The report of the treasurer of the board represented that the increase of the Conference collections over those of the preceding year had been \$1,814, and that the increase on all items of the general fund amounted to \$37,592. All the items of the Loan fund were likewise larger than in the preceding year. The total receipts for the general fund, all available for donations, had been \$214,549, and those for the Loan fund, to be used for loans only, \$246,610, making a total amount available for use under the two headings of \$461,160. Outside of a few exceptional years, the interest paid by the board had heretofore considerably exceeded the interest received. This year, however, a surplus of about \$15,000 remained after paying all annuities. Four hundred and thirteen churches had been aided during the year, making 11,301 from the beginning. Three additions had been made to the list of special Mountain fund churches and 27 to the number of special frontier churches, giving a total of 650 churches of these classes, at an average cost when dedicated exceeding \$2,000. In nearly 100 cases the board had given \$100 each on Mountain fund conditions out of the general fund, of which no accounting is made in the Mountain fund list. The entire capital of the Loan fund, including amounts received subject to life annuity, was on Nov. 1, 1899, \$1,086,856. Borrowing churches had to that date returned \$1,270,367, making an aggregate for use by loans of \$2,357,224. In this way nearly 3,450 different churches had been aided, furnishing sittings for about 1,000,000 hearers, and worth in the aggregate nearly \$12,250,000. The committee decided to ask the sum of \$308,600 from the annual conferences in aid of the church-extension work during the ensuing year.

Freedmen's Aid and Southern Education Society.—The annual meeting of the General Committee of the Freedmen's Aid and Southern Education Society was held in Philadelphia, Pa., Nov. 13. The receipts of the society for the year from all sources had been \$355,827 and the expenditures \$329,663, of which \$207,365 had been applied to the schools (\$169,404 to schools among colored people and \$37,871 to schools among whites). An indebtedness of \$178,074 was returned. The society maintained 1 theological, 12 collegiate, and 10 academic schools among the colored people and 3 collegiate and 23 academic schools among white people in the South.

Special notice was taken in the report of the development of manual training in the schools, for which enlarged facilities were greatly demanded. In view of the certainty that the great majority of the students would engage in operations for which skill in working with their hands would be required, encouragement was given them to maintain themselves by labor while in the schools. In some cases most of the work about the buildings was done by the students. The buildings themselves had in certain instances been erected by them, and even finished by them. The whole number of students in all the industrial schools was 2,640, an increase of 834 over the previous year. Of these, 677 young colored men were learning various trades, and 1,755 colored and 142 white young women were learning branches of domestic economy, sewing, and other women's trades.

Missionary Society.—The General Missionary Committee met in Washington, D. C., Nov. 15. The committee consists of the Board of Bishops, the officers of the Missionary Society, 14 representatives of General Conference districts, and the 7 ministerial and 7 lay members of the Board of Managers of the Missionary Society. Its business is to hear the financial and missionary reports for the year, make the necessary appropriations for carrying on the missionary work in the several fields during the ensuing year, and distribute the assessment of the amounts expected to be contributed during the coming year among the annual conferences. The treasurer reported that the receipts for the year (Nov. 1, 1898, to Oct. 31, 1899) had been \$1,236,544 and the expenditures \$1,232,566. The total indebtedness of the treasury at the beginning of the year was \$177,417; at the close \$99,450, showing a reduction of \$77,967.

The following appropriations were made for carrying on the missionary work in 1900:

Class I. Foreign Missions. Europe, South America, Mexico, and Africa.—Germany, \$36,918; Switzerland, \$7,390; Norway, \$12,487; Sweden, \$16,436; Denmark, \$7,490; Finland and St. Petersburg, \$5,200; Bulgaria, \$8,868; Italy, \$41,122; South America east of the Andes, \$40,384; Western South American Mission Conference, \$29,953; Mexico, \$49,742; Africa, \$24,868.

Asia.—China, \$119,376; Japan, \$49,739; Korea, \$16,911; India, \$144,241; Malaysia, \$12,500. Total for foreign missions, \$629,625.

Class II. Missions in the United States.—Conference missions north of the Potomac and Ohio and east of the Mississippi river, \$24,761; conferences in Iowa and Kansas and States north of them, including Black Hills and Oklahoma Conferences, \$81,697; work in the mountain region (Rocky mountains, etc.), \$58,110; Pacific coast, \$33,376; white work in the South, Maryland, and Delaware, \$48,376; colored work, mostly in the South, \$46,061; new English-speaking missions (Welsh, Swedish, Norwegian and Danish, German, French, Spanish, Chinese, Japanese, Bohemian and Hungarian, Italian, Portuguese, and Finnish) in the United States, \$161,530; American Indians, \$7,686; special appropriations for cities, \$11,176; total for domestic missions, \$471,773; miscellaneous appropriations, \$122,000; total appropriations, \$1,223,398. A number of contingent appropriations were made, amounting in all to \$78,000.

The reports from the mission fields summarized at the close of 1898 give as the figures for the missions in heathen and Roman Catholic countries (deducting the congregations in Protestant countries, such as Germany, Switzerland, Sweden,

Finland, Norway, and Denmark) 234 ordained missionaries, 210 wives of missionaries, 220 other women, 187 of whom are employed by the Woman's Foreign Missionary Society; 786 native women employed by the Woman's Foreign Missionary Society, 436 native ordained preachers, 961 unordained preachers, 1,006 teachers, and 1,215 local preachers and other helpers; 56,884 members and 67,967 probationers in the mission churches; 12,445 conversions during the year; 11 theological schools, with 154 students; 58 high schools, with 4,622 students; 1,139 day schools, with 31,382 pupils; and 676 churches and chapels, valued at more than \$860,000. The society further owns property in orphanages, schoolrooms, hospitals, book rooms, and other institutions appertaining to its mission work, having a total estimated valuation of \$1,320,000.

Women's Societies.—The annual meeting of the Woman's Home Missionary Society was held in Pittsburgh, Pa., in October. The society had 2,600 auxiliaries, with 70,000 annual and 8,000 life members in 52 conferences. Its total income for the year, including the regular contributions, contributions of money and clothing passing through the bureau of supplies, tuition fees, etc., had been \$278,548. Appropriations were made for the ensuing year of \$192,223, of which \$87,508 were unconditional and \$104,715 conditional.

The work of the deaconesses is in the charge of the Deaconess Bureau, under whose supervision 230 trained deaconesses are employed and \$306,725 are invested in deaconesses' homes. Three rest houses for deaconesses and missionaries have been established at Ocean Grove, N. J., Mountain Lake Park, Md., and Round Lake, N. Y. Three deaconesses' assemblies were held during the year—at San Francisco, Cal., for the Pacific coast; the anniversary at Ocean Grove, N. J.; and the Summer School of Methods, at Chautauqua, N. Y.

The thirtieth annual meeting of the Woman's Foreign Missionary Society was held in Cleveland, Ohio, Oct. 20. The statistics of the organization accounted for 5,002 auxiliary societies, with 127,139 members, showing an increase for the year of 77 societies and 5,325 members. More than 30,000 young people were members of the society and contributing to it. The German churches, in 9 conferences in the United States and in Germany and Switzerland, returned 270 auxiliary societies and 5,817 members. The receipts of the society for the year ending Oct. 1 had been \$360,338, or \$31,000 more than those of the previous year. During the thirty years of the existence of the society the sum of \$5,028,000 had been raised and disbursed. One hundred and ninety-five missionaries, 24 of whom were medical, had been in service during the year in India and Burmah, China, Malaysia, Japan, Korea, Italy, Bulgaria, South America, and Mexico. Eleven candidates for service had been accepted. The four periodicals published by the society had an aggregate circulation of 75,400 copies. Appropriations of \$347,000 were made for the year 1900. An effort is making in the society to raise a twentieth century thank-offering fund of \$200,000 in the ensuing two years.

National City Evangelization Union.—The ninth annual convention of the National City Evangelization Union was held in Philadelphia, Pa., Nov. 23 and 24. Reports of interest and progress in efforts for evangelization were received from 38 cities. A committee appointed in the previous convention to wait upon the General Missionary Committee of the Church reported upon the results of their interview with that

body that a new class of appropriations had been entered upon the schedule and named "for work in cities." A considerable number of addresses were made upon the different aspects of religious work in cities.

Methodist Episcopal Church Congress.—The second Methodist Episcopal Church Congress—the first having been held in Pittsburgh, Pa., in 1897—was held in St. Louis, Mo., Nov. 26 to Dec. 1. The object of the congress, which is voluntary and informal, is represented as being "to secure from the younger men, and especially from the younger scholars, a full expression of their thought upon the relation of the Church to modern social and intellectual conditions." Topics are selected for discussion on which differences of opinion are known to exist, and the speakers are selected with reference to their ability to present the subjects fairly. The present congress gave special attention to the problem of religious life in the cities, to the harmony of religion and science, and to the effect upon religious faith of modern biblical criticism. The meeting was opened with a sermon upon Christ the Power of God, by Bishop H. W. Warren. The subject of the Twentieth Century Fund was considered by the Hon. W. M. Day and by Dr. E. R. Mills, its secretary; The Message of the Church to Men of Culture, by Prof. M. D. Learned, of the University of Pennsylvania; The Ordering of Worship, by Dr. W. A. Shanklin and the Rev. H. G. Leonard; The Religion of Childhood, by Prof. Street, of Springfield, Mass., and the Rev. J. A. Story; The Working of the Forward Movement by English Methodists, by Prof. A. H. Briggs; The Problem of Religious Life in the City, by Dr. P. H. Swift and the Rev. Harry F. Ward; The Problem of Religious Life in the Town, by the Rev. G. A. Miller; that of Religious Life in the Rural Districts, by the Rev. Emory J. Haynes; Men in the Church, by the Rev. J. E. C. Sawyer; A Methodist Brotherhood, by the Rev. Dr. T. B. Neely; The Higher Education of the Negro, by Prof. Thirkeld, of Atlanta, Ga.; Temperance Instruction: Its Need and Method, by Mr. David D. Thompson; The Findings of Modern Science and Christian Faith, by Prof. William North Rice and the Rev. M. W. Gifford; Christian Science, by Dr. C. D. Lockwood and the Rev. M. S. Hughes; The Spiritual Element in Modern Literature, by Prof. F. C. Lockwood; Religion and Righteousness, by Dr. George Elliott; The Relation of the Church and the Municipality, by the Hon. R. F. Raymond and Dr. W. W. King; The Church and the Higher Criticism, by the Rev. W. F. Andersen and Prof. Sheldon, of Boston; Denominationalism and Catholicity, by Dr. J. A. Duncan, the Rev. Ira C. Cartwright, and Prof. Borden P. Bowne; The Ethics of Church Membership, by the Rev. T. H. Armstrong and Mr. Hanford Crawford.

Methodist Episcopal Church, South.—The estimate of the numbers of this Church at the close of the year 1899 gave it, for the United States only, 5,950 ministers, 14,190 churches, and 1,460,272 members, showing a gain during the year of 27 ministers, 30 churches, and 4,000 members.

At the annual meeting of the Book Committee, May 3, the book agents returned the total value of the business from all the departments as \$350,416, from which a gain of \$40,144 in assets had been realized. The total capital of the concern, including real estate, plant, merchandise, notes, accounts, etc., was \$902,488, against which stood an indebtedness of \$9,197.

At the annual meeting of the Sunday-school

Board, May 3, the aggregate circulation of the 6 periodicals was returned as being 1,098,700, an increase for the year of 22,200. Grants amounting in all to \$2,450 were made in sums of from \$100 to \$1,000 each to the several foreign missions of the Church. The board resolved to co-operate with the Board of Education in the twentieth century thank-offering movement provided no collections for that object were taken within the Sunday schools themselves.

Missionary Societies.—The detailed report of the foreign missions presented at the annual meeting of the Board of Missions, May 2, gives as the totals: Number of missionaries, 128; of native preachers, 87; of local helpers, 147; of members, 9,503, showing an increase of 402; of Sunday schools, 230, with 689 officers and teachers and 8,375 pupils; of Epworth Leagues, 48, with 1,660 members; of organized churches, 275, of which 10 are self-supporting; of church buildings, 102, valued at \$164,995. The schools included 8 boarding schools, with 34 teachers and 1,000 pupils, and 17 day schools, with 11 teachers and 483 pupils. The 9 school buildings were valued at \$50,853, and the 5 hospitals at \$14,440. At these hospitals 15,688 patients had been treated during the year. The total value of the mission property was \$388,639; amount of collections, \$13,404. The board made appropriations to the several missions and mission conferences as follow: To Brazil Mission Conference, \$30,400; to China Mission Conference, \$27,162; to Korea mission, \$7,650; to Japan Mission Conference, \$31,714; to Central Mexico Mission Conference, \$21,127; to the Mexican Border Mission Conference, \$13,850; to Northwest Mexican Mission Conference, \$12,650; to the Cuba mission, \$5,000; to the Indian Mission Conference, \$2,636; to the German Mission Conference, \$2,268; and to other conferences within the United States, \$25,781. The whole amount appropriated, including the sum allowed for expenses, was \$205,150.

The Woman's Home Missionary Society has undertaken a celebration of the "twentieth century movement" by raising a special fund to help its schools—viz., the Sue Bennett Memorial School, London, Ky.; the Industrial Home and School, Greenville, Tenn., for the mountain people; the Cuban schools in Florida; the Chinese and Japanese schools in California; Friendsbury Home, Baltimore, Md.; and Ann Browder Cunningham Home, Dallas, Texas, for the training of city missionaries and rescue workers. The Friendsbury estate, Baltimore, Md., has been bequeathed to the society by Miss Melissa Rankin, the founder of Protestant missions in Mexico, on condition of its raising \$10,000 for the endowment of city mission work.

The twenty-first annual report of the Woman's Board of Foreign Missions gives as the amount of the collections for the year ending March, 1899, \$83,552, showing a loss of \$3,000 from the previous year. The following statistics of missionary work in foreign lands were given: In China, 20 missionaries, 59 assistant teachers, 43 boarding and day schools, 2,500 pupils, 31 Bible women, 2 Bible schools, 2 hospitals, 86 scholarships. In Korea, 2 missionaries, 5 assistant teachers, 32 pupils. In Mexico, 17 missionaries, 57 assistants, 25 schools, 2,687 pupils, 14 scholarships, 19 Bible women. In Brazil, 11 missionaries, 28 teachers, 8 schools, 277 pupils. In the Indian mission, 10 teachers, helpers, and missionaries, more than 100 pupils, 2 schools, 1 hospital, and 1 Bible woman. In Cuba, 1 missionary and 1 helper had been sent, and 1 school, with 32 pupils, had been established.

At its annual meeting in 1899 this board made appropriations of \$99,000 for the year's work, the amount exceeding any previously voted for one year.

Epworth League.—An enumeration of the Epworth Leagues of this Church made by its secretary gives them for May 30, 1899, 5,031 chapters (4,536 senior and 495 junior), with a total of 221,445 members (204,120 senior and 17,325 junior), against 195,840 members in 1898. During the year that had passed 478 senior and 117 junior leagues had been added.

African Methodist Episcopal Church.—The statistics of this Church, published by Bishop Arnet, the Church historian, at the beginning of 1898, account for 62 annual conferences, of which 52 were in the United States, 4 in Africa, 3 in the West Indies, and 3 in British America. These returns include 9 bishops, 9 general officers, 4,825 ministers on the rolls of the annual conferences, 242 presiding elders, 8,409 local preachers, 5,250 exhorters, 556,289 members, and 57,836 probationers; 5,172 churches, valued at \$6,150,176; 1,750 parsonages, valued at \$624,423, with \$752,964 of indebtedness against church property; 11 schools, with 160 teachers, 5,257 students, 660 graduates, property valued at \$756,475, and an aggregate annual income of \$115,500; and 3,447 Sunday schools, with 21,514 officers, 37,916 teachers, and 362,421 pupils. The benevolent contributions for the year were \$29,938 for missions, \$16,745 for publication, \$17,252 for church extension, \$115,560 for education, \$753,404 for ministerial support, \$141,876 for presiding elders, and \$20,740 for the Sunday-school department. The whole amount of money raised in the Church was \$1,570,329. The total value of its property is \$8,104,886.

The Sunday School Union received for the last year for which the report is made up (ending March 31, 1898) \$21,084, and expended \$19,240. It aided 368 needy Sunday schools with literature to the value of \$852. At the annual meeting of the Board of Managers, held in Nashville, Tenn., April 6, 1899, a committee was appointed to report upon the condition of the negro in the United States. It is represented that this society was the first Sunday-school union in America established among negroes. Property was purchased for it in Nashville in 1885, on which a publication house has been built.

The publication department of the Church published in 1898 *The Bright Side of Life in Africa*, by Dr. W. H. Beard; *The Descent of the Negro*, by Bishop Tanner; *The True Christian Sabbath*, by the Rev. D. A. Graham; *How to Educate Yourself*, by Dr. W. D. Johnson; *The Negro and his Trials*, by Dr. H. T. Johnson; several booklets, two impressions of the Hymn and Tune Book, and a number of periodicals. It had a balance of \$207 in its treasury on March 30, 1899.

The Board of Bishops on June 16 approved a plan for collecting a "twentieth century thank-offering" of \$600,000, to be obtained by Jan. 1, 1901, and appointed the Rev. L. J. Coppin, D. D., commissioner to make all the necessary arrangements for carrying it out. The amount of \$600,000 is to be distributed as follows: To the Mission Board, Home and African, \$100,000; to the Church Extension fund, \$200,000; to the colleges and universities, half on the old debt, half for endowment, \$100,000; to theological seminaries, \$200,000. The commissioner, who is to be assisted by annual conference commissioners, is instructed to report to a board of directors constituted of the bishops and one person from each episcopal district. A board of five directors was

also constituted for each annual conference, and is invested with the appointment of the conference commissioner.

Colored Methodist Episcopal Church.—This Church had at the end of the year 1899 2,039 ministers, 1,427 churches, and 204,317 members, showing an increase during the year of 54 ministers, 50 churches, and 5,689 members. The bishops, after advising with leading ministers and members of the administrative boards, issued a call upon the membership of the Church for a twentieth century offering of \$25,000. The call contemplated an equal division of the money between the educational and the missionary work of the Church, all the schools to share alike in the half of the fund appropriated to educational purposes.

American Wesleyan Church.—The annual meeting of the Board of Managers of the publishing and benevolent interests of the connection was held in Syracuse, N. Y., in June. The secretary of the Missionary Society reported the receipt and expenditure during the year of \$2,238. The report referred to work in Canada, where difficulty was met in consequence of the Church not having yet secured the official recognition required to qualify its ministers to perform the services of marriage, baptism, and burial in a legal manner; mentioned an opportunity for extension which appeared to be opening in East Tennessee; and described the trouble which the mission in Africa had had to suffer in consequence of the prevalence of wars. The board adopted a code of regulations for its missionary work in Africa, the aim of which was defined to be "not to evangelize great areas of people by the maintenance of a large force of foreign workers, but rather to create and prepare through and by a lesser number of workers a regenerated and intelligent native instrumentality in the redemption of their own land from the thralldom of sin and death, and in planting the Gospel in its uttermost regions"; and the scope of the work was described as being threefold—"preaching, teaching, and commercial and business." The agent of the corporate societies of the connection reported the receipts and expenditures of the Publishing Association as having been \$21,254, and its gain in assets \$1,446, making the present total amount \$67,213; the amount of the H. T. Beese fund as \$2,385, showing a gain of \$1,551 in two years; the amounts of the Jackson and the Gracia Elmer funds as, respectively, \$3,000 and \$2,200. The receipts and expenditures of the Missionary Society had been \$2,658 for home missions and \$3,701 for foreign missions, while it had realties, notes, and cash representing \$7,338 on account of home missions and \$8,814 on that of foreign missions. The Wesleyan Education Society had received and expended \$4,222 and possessed assets valued at \$23,177, while its liabilities were \$980. The Superannuated fund received \$980.

American Methodist Church.—Articles of incorporation have been filed in North Carolina of the American Methodist Church. Instead of a formal creed this Church accepts as the basis of its doctrines the Ten Commandments, the Sermon on the Mount, the Apostles' Creed, and the Holy Scriptures. No distinctions of sex are recognized in the powers and privileges of members. Infant baptism is retained, but is left optional with parents, who may also choose the mode of administration; and adults are likewise permitted to choose the mode in which they shall be baptized.

Methodist Church in Canada.—The statistical reports of the Methodist Church in Canada

give the following numbers of members by conferences: Toronto Conference, 44,258; London, 48,289; Hamilton, 46,307; Bay of Quinte, 40,369; Montreal, 35,838; Nova Scotia, 16,079; New Brunswick and Prince Edward Island, 13,668; Newfoundland, 11,279; Manitoba and Northwest Territory, 18,741; British Columbia, 5,060; Japan, 2,339; China mission (1898), 31; total, 282,259; net increase for the year, 1,722; number of members received on trial during the year, 18,802; number of baptisms, 17,286.

The total missionary income for the year is given in the *Christian Guardian* for Sept. 27 as \$266,075; net increase, \$23,023.

The invested capital of the Superannuation fund was reported at the close of the fiscal year, Aug. 28, as \$233,698. The year's income and expenditures were balanced at \$113,537.

Epworth League International Convention.

—The fourth biennial international convention of the Epworth League was held in Indianapolis, Ind., July 20 to 23. The use of the Capitol building had been granted by the State Legislature for the general purposes of the occasion, and the special meetings were held in the two principal halls of the city and a large tent. The societies of the United States and Canada were represented in the convention, and the delegates appeared in behalf of three Church organizations—those of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Church of Canada. Among the subjects discussed at the meetings of the three sections, each by many speakers, were The Intellectual Life, The Spiritual Life, Revivals, the special work of the league, Methodism and its Life, Social Righteousness, Good Citizenship, Temperance, and Missions. Besides the special meetings, public lectures were delivered. Resolutions were adopted favoring a continuance of the "joint prayer-meeting topics" and a federation with other young people's societies, "both locally and nationally, through suitable executive committees, for the promotion of Christian citizenship."

Wesleyan Methodist Church.—The following is a summary of the official returns of the members, probationers, and supernumerary ministers of the British and affiliated conferences of this Church as they are published in connection with the minutes of the conference of 1899: In Great Britain, 447,276 members, 1,663 ministers, 316 supernumeraries; in Ireland, 27,461 members, 172 ministers, 40 supernumeraries; in foreign missions, 46,262 members, 269 ministers, 14 supernumeraries; French Conference, 1,757 members, 27 ministers, 8 supernumeraries; South African Conference, 55,769 members, 164 ministers, 18 supernumeraries; West Indian conferences, 43,287 members, 79 ministers, 3 supernumeraries. The totals are: 621,812 members (74,305 on trial), 2,374 ministers, 372 probationers, 401 supernumeraries. The 77,780 young people meeting in junior classes are not included in the home or foreign returns. The accredited local preachers at home number 18,017.

The income of the home missions, as given in the annual report of the committee for 1899, had been £35,977 and the expenditure £36,296, showing a deficiency of about £320. The debt on the annual account of the fund now stood at £6,740. A scheme has been proposed by the Conference, to be submitted to the district synods, for the creation of a separate fund, to be called the Connectional fund, from which connectional expenses not chargeable to circuits are to be paid.

The London Wesleyan Mission consists, according to its latest report, of 7 branches, with

36 buildings. Eighteen ministers are engaged in the work, and are assisted by 25 lay agents and 70 "sisters of the people." More than 6,000 members have joined. A home of rest at Balham for the deserving poor has proved a valuable auxiliary. An extension of premises has been made in central London at a cost of £10,000. The Leysian Mission, which is connected with the Leys School, Cambridge, also reports progress.

Education.—At the meeting of the Education Committee held in February the income was reported to have been £5,877, an increase for the year. The new budget involved an estimated expenditure of £6,056. Of the £35,000 aid grant received by the newly formed school association from the Government, three fourths had gone to the teaching staff. This, however, would not be the case in the future.

Chapel Building.—The report of the Metropolitan Chapel-building fund shows that 6 new chapels had been opened during the year, and 1 chapel had been enlarged. Six new schemes had been sanctioned. Three new buildings were in progress. Temporary iron chapels or school chapels had been erected on a number of sites in and around London. The claims of 27 other localities had been submitted to the committee. The total expenditure contemplated was £140,000. The total receipts for the year had been £10,442. The grants paid amounted to £10,484.

Sunday Schools.—The report to the Conference on Sunday schools showed that there were 7,255 schools, with 972,426 pupils. While the number of registered pupils was greater by 2,942 than in the previous year, a gradual decline in the schools of catechetical instruction was remarked upon as an unhealthy sign. The adult Bible classes not connected with Sunday schools returned 48,821 members, and the "pleasant Sunday afternoon" classes 9,177 members.

Wesleyan Missionary Society.—The annual meeting of the Wesleyan Missionary Society was held in London, April 28. The regular income of the society, amounting from all sources to £130,533, showed an increase over the previous year of about £1,100, and of £4,807 as compared with that of 1896. The society was thus free from debt and paying its way. The total number of members in the foreign stations under the direction of the committee was 46,262, with 11,019 on trial. Taking the mission field as a whole, an increase was reported under almost every head, the Transvaal and Swaziland district taking the lead with an increase of 849, besides 3,500 on trial, the Canton (China) district coming next, with the largest increase (359) yet reported there. Emphasis was given in the report to the fact that increased church membership and other signs of progress were manifest throughout the entire Asiatic field, where the most ancient and highly organized forms of heathenism were encountered. Attention was invited to places where specially favorable openings were presenting themselves, as in the province of Hunan, China; Hyderabad, India; Cairo, Egypt; the region north of the Zambesi; and Lisbon, Portugal.

Conference.—The Wesleyan Methodist Conference of Great Britain and Ireland met in City Road Chapel—John Wesley's Chapel—London, July 17. The Rev. Frederick W. MacDonald was chosen president. A committee appointed by the previous Conference to revise the order of sessions presented a report suggesting changes in the method of filling up the legal conference and of electing the president and secretary of the Conference, which was adopted. (The legal con-

ference, or legal hundred, consists of 100 ministers, appointed, partly by seniority and partly by the Conference, in accordance with the statute law, to constitute the body possessing the legal functions of the Conference.) The plan provides that vacancies in the legal conference caused by death or lapse shall be declared at the first meeting of the representative session, and filled up by the legal conference by election on the ground of seniority, while the declaration of vacancies on the ground of superannuation shall be deferred until the meeting of Conference in pastoral session, when they shall be filled by election by the legal conference on the ground of nomination; that the nomination of the president and of the secretary of the Conference shall be made by ballot vote at the pastoral session of the preceding Conference; the election to be made by the legal conference, which is requested to elect the persons who were nominated. In case of the death of the person nominated to be president or secretary before the meeting of the Conference at which the election is to take place, a new nomination shall be made by the ministers in representative session, which the legal conference is requested to ratify. Other recommendations of the committee approved by the Conference provided that all ministers in full connection permitted to attend the Conference in its pastoral session shall have the right to vote in the nomination of president and secretary of the ensuing Conference, and suggest for the consideration of the representative session an increase of the number of its members so that it may consist of 300 ministers and 300 laymen, with a corresponding increase in the number of members of the representative session elected by the Conference from 18 to 48. A report concerning the Twentieth Century fund represented that the whole amount subscribed to date was 669,214 guineas, or £702,674, and the amount paid in £86,572. All the arrangements for the fund and its allocation had been well received by the Methodist people, and the principle 1 person, 1 guinea had been cordially accepted. A resolution being offered expressing the opinion of the Conference that no Christian man should manufacture or sell intoxicating liquors, an amendment was proposed declaring that "the Conference rejoices in the rapid spread of temperance convictions and practices in the Methodist Church, and urges our people everywhere to consider all well-promoted temperance reforms, and confidently hopes for their success, but it declines to pronounce an abstract and indiscriminate opinion upon the action of individual Christians." The Conference further reaffirmed its resolutions of the previous year on this subject, rejoicing in the progress of temperance sentiment and practice in the Wesleyan Church, but declining to interfere with the constitutional method of appointing its officers; advising the people to keep themselves free from complicity with the liquor traffic; declaring its reliance upon the growth of moral conviction in the community for its removal; expressing itself unable to impose disabilities upon those who sell drink which would not apply to those who buy and use it; and recording its belief that the great ends of the temperance movement can be secured without resort to methods of coercion. A protest was voted against the opening of the Crystal Palace on Sundays for concerts and public dinners. A resolution was adopted with reference to the enforcement of the "conscience clause" in the elementary schools.

Primitive Methodist Church (British).—The Primitive Methodist Yearbook in August, 1899,

gave the number of members of society as 198,300, showing an increase for the year of 1,748; of ministers, 1,102; of local preachers, 16,617; of class leaders, 10,604; of Sunday schools, 4,341, with 61,015 teachers and 467,884 pupils. Of the £50,000 raised by the Primitive Methodist Jubilee fund, £28,600 had been handed over to the treasurers of the various funds to be benefited by the movement in the following proportions: College fund, £10,550; Chapel Loan fund, £9,350; Missionary fund, £9,350; and Superannuated Preachers', Widows', and Orphans' fund, £9,350.

The Itinerant Preachers' Friendly Society reported an income of £12,827 and an expenditure of £9,139. Its capital stood at £44,481, showing an increase for the year of £1,652. It was decided at the meeting of the society, regarding the position of the Australian ministers after the consummation of Methodist union in Australia, that all members of the society of thirty-five years' standing be retained, and that the interests of those of less than thirty-five years of membership be actuarially valued, while all the widows and orphans annuitants shall be retained.

The annual meeting of the Primitive Methodist Missionary Society was held in London, May 16. The report showed that receipts had been £18,395 for the general fund and the expenditure £14,783, the income being £1,724 more than that of the previous year, and giving a balance to the credit of the treasury of £3,611. The total receipts for the African fund had been £8,205 additional, and the expenditure £5,280, leaving a credit balance of £2,924. In addition to the money which had passed through the hands of the treasurers, £15,171 had been raised and appropriated locally by the missions on the general fund and £2,545 at the African missions, making a total missionary revenue of £44,337, or £2,677 more than that of the previous year. It had been many years since so large an increase of missionary revenue had been reported. The 33 home missions returned 107 connectional chapels, 8,950 hearers, 45 ministers, 11 lay missionaries, 6 Bible women, 292 local preachers, 97 Sunday schools, with 850 teachers and 7,698 pupils, and 3,996 church members, an increase of 32. The reports from the African stations—Aliwal North, Santa Isabel, San Carlos Bay, Bottle Nose, Banni, and Archibongville—showed good conditions.

The eightieth conference of the Primitive Methodists met at Grimsby, June 14. The Rev. William Godman was chosen president. The reports presented showed that the Church had 198,915 members, with more than 600,000 hearers attending the services, 467,884 children in the Sunday schools, and church property valued at £3,919,000, and that it raised nearly £350,000 a year for its chapel property. The Connectional fund had an income of £11,190; the book room had enjoyed great prosperity, with an increase of £115 in its gross profits and a considerable advance in the circulation of the connectional magazines, while £3,250 had been applied from the profits for the support of superannuated ministers, widows, and orphans. The latter fund maintained out of its income 144 worn-out ministers, 149 widows, and 4 orphans. The Sunday School Union reported progress in every department, with a balance in hand of £394 and an increase of 36 schools, with 2,878 pupils. The Chapel Aid Association had loan accounts amounting to £216,323, and had during the few years of its work seen debts lowered to the extent of more than £63,000, while the general chapel fund had made grants during the year of £1,045, to earn

which the churches had raised locally £9,720. The orphanage was full, and returned the highest income in its history. Manchester, Elmfield, and Bourne Colleges were in a flourishing condition. Forty-eight thousand pounds sterling had been raised toward the contemplated jubilee fund of £50,000. The Central Council of Christian Endeavor returned 1,042 societies, with more than 35,000 members. The joint subcommittee on union with the Bible Christians, which had been sitting during the year, reported recommendations dealing mainly with the principle of representation in the Conference. The whole question was referred to the quarterly meetings of the circuits and to the districts. A proposition for legislation securing a seat in the Conference and a vote to the heads of all the connectional departments received no favor. Measures were adopted for bringing the connectional organization of Christian Endeavor into closer touch with the national movement. The minimum to be aimed at for the salary of ministers was ordered raised from £88 to £100 a year.

Methodist New Connection (British).—The report of the Beneficent Society, published just previous to the Conference, showed a slightly increased income, and provision was made for new claimants. This society seeks, from its capital of £29,000 and from circuit contributions and the subscriptions of ministers, to provide annuities for worn-out ministers and their widows and orphans, and by means of its auxiliary fund to help them in furnishing houses of their own when they are obliged to retire from circuit manse.

The one hundred and third Conference met in Manchester, in the Wesleyan Central Hall, June 13. The Rev. John E. Radcliffe, of Batley, was chosen president. A report on prolonged appointments of ministers to home-mission stations was adopted, by the provisions of which the station applying for a minister beyond five years is required to manifest growing liberality to Connectional institutions, encouraging increase in congregations and church membership, tendency to self-support, and actual progress in the reduction of debt or the founding of new churches. The appointment will be made by the Conference on the favorable report of the Home Missionary Committee investigating the case. Under these provisions one minister was appointed for a sixth year to a station and another for a seventh year. A system was further adopted for the visitation of home-mission stations and aided circuits by a minister and a layman, with a view of encouraging them in efforts toward self-support. In cases where a station has only one minister an occasional interchange with a minister of a neighboring circuit was recommended. A representative committee of sixteen members was appointed to review the legislation affecting appointments to Connectional departments (administration of missions, book room, etc.) during the last ten years, with a view to securing increased efficiency and economy, and to report to the next conference. The report of the book room showed diminished profits. The Conference resolved to afford exceptional help and counsel to the London association.

United Methodist Free Churches.—The book room and the London Chapel Extension fund of this body show continued advance.

The Chapel Relief fund returned a somewhat reduced income, but buildings had been erected or enlarged at a cost of £39,000, toward which £21,500 had been subscribed, and chapel debts had been reduced by £30,000. The Loan fund continued to afford substantial help.

The income for home and foreign missions had reached £10,500, besides which about £1,600 had been raised from miscellaneous and special sources and £642 on foreign districts. The home expenditure amounted to £2,439 and the foreign expenditure to £9,756, in addition to which £2,688 had been raised and expended on the foreign stations.

The annual meetings in connection with the home and foreign missions were held in London, April 24. The income for the year had been £14,028 and the expenditure £13,666. The foreign stations in East Africa and China returned 28 missionaries, 290 local preachers and native helpers, 472 leaders, 8,651 church members, with 2,702 on trial, 161 chapels and preaching rooms, and 396 teachers and 4,763 pupils in Sunday schools. Two thousand persons had been treated medically.

The annual assembly met at Sheffield, England, July 10. The Rev. J. C. Brewitt was chosen president. The Statistical Committee reported that the number of members (83,008) indicated an increase of 755 in the home circuits and a decrease of 54 in the foreign-mission stations. The number of pupils, reaching 190,000, with 24,000 teachers, was slightly less than in the previous year. The home churches returned 5,806 candidates for membership and the foreign stations 2,800. The Conference decided to appoint a representative on the Nonconformist Political Council. It having been determined three years previously that when the missionary income should have reached £10,000 the minimum ministerial salary should be raised to £140, an order to that effect was carried, although the committee suggested a postponement of a year upon the offer of individual members to make up whatever deficiency might result in the funds. A proposition to change the method of electing the Connectional Committee by introducing the system of district nomination referred by the previous annual assembly was reported upon adversely and lost. A "twentieth century fund" was instituted, the amount to be raised for which was fixed at 100,000 guineas, the books to be open for subscriptions till June, 1904. The allotment of the sum raised contemplates the appropriation of eight twentieths to the Mission fund, eight twentieths to extension work at home, and four twentieths to the London Chapel Extension fund. Contributors were given the right to allocate any portion of their gifts not larger than one half to any local effort or connectional fund they may desire. Twelve thousand guineas were pledged to this fund during the sessions of the assembly. In moving a resolution with reference to slavery in the British East Africa protectorate, charging violation of the decrees issued in 1876 and 1890, the Rev. W. G. Howe, returned from East Africa, said that, although some missionaries had under compulsion restored runaway slaves to their "so-called owners," the United Methodist missionaries, in spite of governmental warnings and in face of threatened pains and penalties, had declined to do so.

Bible Christians.—The Bible Christian Conference met at Holsworthy in August. The Rev. T. Braund was chosen president. The action of the Conference on the "new century movement" expressed satisfaction that the connection had received the proposition with so much enthusiasm and the belief that as one third and more of the sum proposed to be raised had been already promised that amount (£25,000) would be greatly exceeded, and the fact confirmed the selection of the objects of the effort. The provisional

allotment of the money approved by the meeting contemplates the allocation of ten twenty-fifths of the amount to the Chapel Free Loan fund, five twenty-fifths to the Preachers' Annuitant fund, three twenty-fifths to the Local Preachers' Aid Association hereafter to be established, and two twenty-fifths for the education of candidates for the ministry, while the remaining five twenty-fifths were reserved for appropriation to any one or more of the objects named as may be thought most expedient when the fund is closed. Any sums not exceeding £5,000 which may be raised above the contemplated £25,000 it was provided shall be devoted to the Foreign Missionary Society for aggressive work, preferably in China. The last Sunday in January, 1900, was appointed a day for general thanksgiving and prayer in connection with the movement. A history of the denomination is to be prepared by the Rev. F. W. Bourne and sold for the benefit of the New Century fund. With reference to union with the Primitive Methodist Church, the Conference decided to furnish such information concerning the Bible Christians as was asked for by that body, expecting in return such information respecting the Primitive Methodists, and to print the proposed amendments to the constitution in the minutes of the Conference; and it authorized the Connectional Committee, whenever terms of union mutually satisfactory to both parties can be arranged, to determine when the information collected on the subject shall be laid before the quarterly meetings, preparatory to their decision on the whole question being obtained. A resolution on temperance, including among its clauses a declaration that persons holding license for the sale of intoxicating drinks shall not be eligible to office in the churches, was sent down to the quarterly and district meetings for advice.

The missionary report showed a slight increase in the membership of the home-mission stations, but a decrease of 148 members in Victoria. The total income for the year had been £5,573, while the accounts showed a deficiency of £773.

The net receipts for the General Chapel fund were represented as having been £2,000 in advance of those of the previous year. The chapel income was higher by £7,604 than had ever before been reported to the Conference, and was an increase of £9,680 over the income on the same account of the previous year. The total net improvement in the chapel property of the connection during the past twenty years had been £186,254 in value.

The report of the Missionary Society showed that the total number of members in the mission stations at home and abroad was 11,323, representing an increase of 200 during the year. Of the missions abroad, mention was made of the Bush Mission in Australia, and of that in China, where 15 missionaries were employed.

Independent Methodist Churches.—The ninety-fourth annual meeting of (English) Independent Methodist Churches was held in Nelson, June 18. Nearly 200 delegates and officers were present. Mr. Richard Lee presided. The Ministers' Assistance fund showed a balance of nearly £1,000 and a year's gain of £50. The subject of a national old-age pension scheme was discussed. The claims of the connectional £5,000 scheme were urged.

Methodist Union in Australasia.—Negotiations between the Methodist churches in the Australasian colonies have been going on for several years past. The transactions are somewhat complicated, for they concern four branches of the Church, and have to be carried on severally for

each of the colonies. They were brought to a conclusion for South Australia and West Australia in August, when at a meeting of the Methodist Federal Council, representing the Wesleyan, Primitive Methodist, and Bible Christian Conferences, held in Adelaide, the plan of union was adopted clause by clause and officially signed by the presidents of the several bodies. It was understood that the union for those colonies should go into effect on the first day of January, 1900.

South African Conference.—The latest returns from the South African Conference (March, 1899) show a church membership of 51,986, with 22,544 on trial. The English missionaries numbered 127 and the native ministers 72, with nearly 200 evangelists. Six hundred and eighty-four churches and 510 Sunday schools were returned.

MEXICO, a federal republic in North America. The legislative power is vested in the Congress, consisting of a Senate of 56 members, 2 from each state and the federal district, and a House of

Representatives, containing 227 members, who are elected for two years by the votes of all respectable adult male citizens. The President is elected by colleges of electors for four years. Gen. Porfirio Diaz was elected in 1876 and again in 1884, and, the constitutional disability of a President to succeed himself having been removed in 1887, he has been re-elected three times,



PORFIRIO DIAZ,
PRESIDENT OF MEXICO.

his last term ending Nov. 30, 1900. His Cabinet at the beginning of 1899 was composed as follows: Minister of Foreign Affairs, I. Mariscal; Minister of the Interior, Gen. M. Gonzalez Cosio; Minister of Justice and Public Instruction, J. Barranda; Minister of Fomento, M. Fernandez-Leal; Minister of Finance, J. J. Limantour; Minister of Communications and Public Works, Gen. F. Z. Mena; Minister of War and Marine, Gen. F. B. Berriozabal; Treasurer, F. Espinosa.

Area and Population.—The area of Mexico is 767,005 square miles. The population on Oct. 20, 1895, was 12,619,959. About 19 per cent. of the people are white, 43 per cent. of mixed blood, and 38 per cent. pure Indian. The number of marriages registered in 1895 was 53,691; of births, 383,747; of deaths, 391,177. The educated white class numbers about 2,000,000. About an equal number of whites and half-breeds are partially educated, and are employed as foremen and overseers in mines, farms, and cattle ranches. The Indians, who do the manual labor of the country, are illiterate and have but few wants, to supply which they work hard but intermittently. American mine managers and engineers, business agents, planters, ranchers, railroad officials and employees, and skilled laborers of various kinds have emigrated to Mexico in increasing numbers.

Finances.—The total receipts of the Government in 1898 were \$52,748,712 in silver; expenditures, \$51,815,286. The budget estimates for the year ending June 30, 1900, make the revenue \$54,913,000, of which \$24,192,000 are derived from import and export duties, \$22,411,000 from internal taxes collected in the states, \$2,931,000 from internal taxes collected in the federal district and territories, \$3,907,000 from public services, and

\$1,472,000 from the mint and patent office. The total expenditure is estimated at \$54,886,756, of which \$1,019,243 are for the legislative power, \$82,469 for the executive power, \$449,451 for the judicial power, \$553,804 for foreign affairs, \$3,904,061 for the Interior Department, \$2,446,110 for justice and education, \$818,426 for agriculture, \$6,162,078 for public works, \$6,265,717 for finance, \$21,021,042 for the public debt and pensions, and \$12,164,356 for war and marine. The revenue of the states in 1896 was \$14,971,057, and expenditure \$14,472,906; the revenue of municipalities was \$11,779,976, and expenditure \$11,670,784. The federal receipts are estimated for 1900 at \$56,140,000, and expenditures at \$56,028,630.

The national debt on Jan. 1, 1899, amounted to \$201,143,121, of which \$108,555,100 represented foreign loans. The foreign gold debt, formerly paying 6 per cent. interest, was converted by arrangement with German and American bankers in July, 1899, into \$111,929,500 of 5-per-cent. bonds guaranteed by the customs, inconvertible for ten years and redeemable in forty-five years. Most of the bonds were placed in Germany, where the old debt was mainly held, and the rest in the United States and England. The 6-per-cent. silver-currency bonds had all been redeemed by the beginning of 1899 except \$186,000. There is a 3-per-cent. internal consolidated debt, which amounted at the end of 1897 to \$51,175,200, and a 5-per-cent. redeemable debt, the amount of which was \$35,781,400, issued for the conversion of railroad guarantee bonds and loans raised for harbor improvements. Of this, \$8,000,000 were placed in Germany in 1899.

The Army and Navy.—The standing army consists of 22,605 infantry, 7,249 cavalry, and 2,289 artillery and train; total, 32,143 men, including 2,068 officers. The war effective is 123,500 infantry, 20,000 cavalry, and 8,000 artillery. Besides the active army, there are the auxiliary troops, the active army reserve, and the general reserve.

The naval force consists of the steel cruiser Zaragoza, of 1,200 tons, built in France in 1891; 2 old gunboats, of 425 tons, armed with 4-ton guns; and 2 antiquated dispatch boats. An armor clad, a cruiser, 4 new gunboats, and 5 first-class torpedo boats are being added.

Commerce and Production.—The production of Indian corn in 1896 was 25,833,503 hectolitres; of wheat, 601,782 tons; of rice, 44,275 tons; of sugar, 71,429 tons; of panocha, 62,688 tons; of molasses, 52,749 tons; of brandy, 5,663,757 hectolitres; of henequen, 531,319 tons; of cotton, 29,185 tons; of logwood, 67,853 tons; of cacao, 1,313 tons; of coffee, 13,254 tons; of tobacco, 15,875 tons; of rum, 328,986 tons. Large numbers of cattle are raised in northern Mexico to be fattened and slaughtered in the United States. The mineral products include gold, silver, lead, zinc, iron, copper, quicksilver, tin, cobalt, antimony, sulphur, coal, and petroleum. About a third of the mining establishments, which numbered 3,167 in 1894, belong to foreign companies or individuals. The quantity of gold brought to the mints and assay offices in 1896 was 6,289 kilogrammes, value \$4,247,760; of silver, 1,314,849 kilogrammes, value \$58,044,820. The total value of imports in 1898 was \$43,603,492; of exports, \$75,042,332 of precious metals and \$53,930,417 of merchandise. The value of silver exported was \$35,721,275; of silver coin, \$18,214,989; of silver ore, \$11,137,996; of gold, \$6,364,308; of henequen, \$11,564,519; of coffee, \$10,649,119; of cattle, \$4,507,327; of tobacco, \$4,489,768; of timber, \$3,597,069; of hides and skins, \$3,590,477; of zacaton root, \$1,196,293; of

vanilla, \$633,270; of chick peas, \$632,651; of ixtle fiber, \$609,867. The formation of new companies in various industries, the extension of railroads, and the general prosperity of the country have stimulated the import trade, and the export trade has more than kept pace with it, owing to increased production and better transport facilities. The establishment of new banks everywhere has helped to insure a constant circulation and productive employment of money. Of the total value of the imports, 49 per cent. came from the United States, 18 per cent. from Great Britain, 12 per cent. from France, 11 per cent. from Germany, and 10 per cent. from other countries. The increase in the number of factories calls for larger imports of coal, of which about 50 per cent. comes from the United States and 30 per cent. from England. Notwithstanding the many new cotton mills that have been started, the imports of cotton goods are increasing, especially of the finer qualities not made in the country. American capital is constantly finding employment in the mines, railroads, and industries of Mexico, and American trade is growing, and German trade also, while British trade has declined. The corn and other food crops of Mexico are precarious on account of frequent droughts, which sometimes necessitate importations to supply a deficiency. The cultivation of coffee and tropical products is increasing. Attempts have been made to introduce the cultivation of the rubber tree on a large scale, but the capital raised for the purpose in financial centers has not all been honestly applied. There are about 15,000,000 sheep in the country, and probably more than 8,000,000 horned cattle. The chief wealth of Mexico, however, lies in her mines. Silver, gold, lead, antimony, zinc, and magnesia constitute two thirds in value of the exports. Gold mining is increasing in importance, because most of the ores are of low grade, such as can only be profitably worked by the modern cyanide process. Silver has been mined since the first advent of Europeans, and the Mexican silver dollar is accepted as currency in China and other Asiatic countries.

Navigation.—The number of vessels entered at Mexican ports during 1898 was 10,527, of 4,085,200 tons; cleared, 10,452, of 3,880,940 tons. These included 5,112 steamers entered, of 3,731,323 tons, and 4,953 cleared, of 3,535,898 tons.

The merchant navy in 1898 comprised 17 steamers, of 4,081 tons, and 51 sailing vessels, of 9,317 tons.

Communications.—Out of a total length in 1898 of 7,750 miles of railroads, 5,617 miles had been built by foreign capital. The receipts in 1896 were \$30,231,000, from 26,081,000 passengers and 5,084,000 tons of freight. There are 42,150 miles of telegraph and 7,459 miles of telephone. Two thirds of the telegraph lines belong to the Federal Government, and the rest to the states, railroads, and telegraph companies.

MICHIGAN, a Western State, admitted to the Union Jan. 26, 1837; area, 58,915 square miles. The population was 212,267 in 1840; 397,654 in 1850; 749,113 in 1860; 1,184,059 in 1870; 1,636,937 in 1880; and 2,093,889 in 1890. By the State census of 1894 it was 2,241,454. Capital, Lansing.

Government.—The following were the State officers in 1899: Governor, Hazen S. Pingree; Lieutenant Governor, O. W. Robinson; Secretary of State, Justus S. Stearns; Treasurer, George A. Steel; Auditor, Roscoe D. Dix; Attorney-General, Horace M. Oren; Superintendent of Instruction, Jason E. Hammond; Insurance Commissioner, Milo D. Campbell, who accepted the office of Tax Commissioner and was succeeded

by Harry H. Stevens as acting commissioner; Land Commissioner, William A. French; Labor Commissioner, Joseph L. Cox; Food Commissioner, E. O. Grosvenor; Adjutant General, F. H. Case; Railroad Commissioner, Sybrant Wesselius, succeeded in March by C. S. Osborn; Bank Commissioner, George L. Maltz; Game Warden, Grant M. Morse; Analyst, R. E. Doolittle; State Tax Commission, Milo D. Campbell, A. F. Freeman, and Robert Oakman; Forestry Commission, Arthur Hill, C. W. Garfield, and the Land Commissioner *ex officio*; Library Commission, D. D. Aitkin, T. P. Hall, Cyrus G. Luce, and Charles H. Hackley; Chief Justice of the Supreme Court, Claudius B. Grant; Associate Justices, Robert M. Montgomery, Frank A. Hooker, Joseph B. Moore, Charles D. Long; Clerk, Charles C. Hopkins—all are Republicans.

Finances.—The Treasurer's report, published in August, shows that the cash balance on hand June 30, 1898, was \$1,216,212.61. The receipts of the year were \$4,576,874.98 and the disbursements \$4,391,031.71, leaving a balance of \$1,402,055.88 at the close of July, the fiscal year having closed the business June 30, 1899, and the balance having increased \$174,819.10 during the year.

During the year the general fund was credited with \$284,052.54 received through the Auditor General's office for redemptions, delinquent taxes, State tax lands, tax histories, etc. The sum of \$2,322,845.75 was received from county treasurers; from the United States Government in aid of the Soldiers' Home, \$95,336.05; from the United States in aid of the State Agricultural College, \$24,000.

The receipts from specific taxes aggregated \$1,415,210.22, of which \$999,185 was from railroad companies, \$134,816 from fire insurance companies, \$95,345 from life insurance companies, \$29,916 from telephone, \$18,375 from telegraph, and \$13,681 from express companies.

The disbursements from the general fund included: Soldiers' Home, \$113,066.66; Eastern Asylum, \$10,335; Kalamazoo Asylum, \$9,800.79; Northern Asylum, \$10,141.31; Newberry Asylum, \$42,627.81; Asylum for Insane Criminals, \$8,650; Home for the Feeble-minded, \$59,116.16; Fish Commissioners, \$20,175.18; University of Michigan, \$244,711.07; military account, \$50,000; factory inspection, \$12,005; Dairy and Food Commission, \$17,556.34; soldiers' aid, \$6,048.82; Board of Pardons, \$4,518.97.

The specific tax fund was credited to the several trust funds, as follows: Agricultural College interest fund, \$46,315.76; general fund, \$48,015.55; normal school, \$3,969.92; primary school interest fund, \$962,325.02; university interest fund, \$37,303.08; balance June 30, 1899, \$317,380.89; total, \$1,415,210.22.

The indebtedness of the State is summarized as follows: War loan, 1898, 34-per-cent. bonds, \$208,700; war-loan bonds, 1898, 3 per cent., \$291,300; noninterest-bearing bonds, \$10,992.83. The trust fund debt has now reached \$6,120,003.56, of which amount \$4,793,010.63 belongs to the primary school fund, \$725,843.81 to the Agricultural College fund, \$66,245.12 to the normal school fund, and \$533,904 to the university fund.

The State tax levy for 1899 amounts to \$3,725,835.

Education.—The latest school report at hand is for the school year ending Sept. 5, 1898. In that year there were 672 graded and 6,485 ungraded districts, and 111 township-unit school districts. The school population was 703,730, an increase of 2,486 over that of the year next pre-

ceding. The enrollment was 496,025. The average length of the school year was 8.12 months. There were 403 private schools, with attendance of 45,465. The aggregate wages of public-school teachers were \$4,146,450; men received on the average \$43.05 a month; women, \$35.28. The value of school property was \$18,138,589, and 3,382 libraries have 822,410 volumes.

The Legislature of 1899 appropriated funds for repairs and extensions at many of the State institutions. The following were the sums granted to educational institutions: State Library, \$4,375; College of Mines, \$64,687.50; Northern Normal School, \$27,500; Central Normal School, \$74,250; State Normal College, \$109,275; Agricultural College, \$74,000; Michigan University, \$279,275.

The State Agricultural College, at Lansing, had in attendance in October 524 students, an increase of about 75 over the number at the same date in 1898. "The addition of a course for women three years ago was followed by a remarkable increase in the attendance not only of young women, but also of young men in both courses; the addition this year of a five-year course for mechanical students has been followed by about the normal growth in the agricultural and women's courses and by an increase of over 60 per cent. in the matriculations in the mechanical course."

A building for women is about to be erected. It will cost \$83,000, with \$12,000 additional for furnishings. A farm of 676 acres is used by the college.

Charities and Corrections.—State charitable and correctional institutions receive from the State, according to the act of the Legislature of 1899, as follow: Industrial Home for Girls, \$59,764.75; Industrial School for Boys, \$126,900; Upper Peninsula Prison, \$16,989; State Reformatory, \$12,300; State Prison, \$35,500; Michigan Asylum for Insane, \$12,432; Upper Peninsula Asylum, \$62,910; Northern Asylum, \$50,550; Eastern Asylum, \$77,000; School for the Blind, \$41,143.75; School for the Deaf, \$137,362.50; State Public School, \$55,016; Home for the Feeble-minded, \$119,435; Soldiers' Home, \$162,250. Current expenses of insane asylums, \$503,350; current expenses of prisons, \$110,000.

Charges of cruel punishments at the Adrian Industrial School for Girls led to an investigation, and a change was made in the management. There were 326 girls in the school in February.

The shops of the Industrial School for Boys were struck by lightning, June 5, and burned. The institution has 650 inmates.

Banks.—The Bank Commissioner's report, coming down to Sept. 7, 1899, shows the condition of the 187 State banks and 3 trust companies. The increase in the year ending Sept. 7, 1899, is shown as follows: In loans, discounts, bonds, and mortgages, \$11,956,861.48; in deposits, \$14,742,858.67.

Building and Loan Associations.—From a bulletin concerning the associations and their business for the year ending in June it appears that there has been a decrease of over \$750,000 in the assets of the 73 associations reporting.

Railroads.—For the six months ending June 30 the total earnings of the railroads in the State were \$16,492,895.97, against \$14,896,181.88 for the corresponding period of 1898.

Three of the railroads were consolidated this year under the name "The Detroit and Père Marquette." The consolidated lines have a total of 1,769 miles, as follow: Flint and Père Marquette, 704; Chicago and West Michigan, 614; Detroit, Grand Rapids and Western, 451.

Almost every important city in the State will be reached through the one company. The total stock of the new company is \$28,000,000, an increase of \$5,000,000. The bonded indebtedness is \$25,300,000, making the total indebtedness less than \$30,000 a mile. The net earnings of the three roads in 1898 were \$1,587,000.

There are in all 10,211.78 miles of line owned by 88 companies. The wages of employees have been materially increased in the year in many instances, section men and track laborers receiving as much as \$1.75 a day. In the year 12 railroad companies, including reorganizations, and 14 electric companies filed articles of incorporation. Nearly all the latter will conduct inter-urban business and compete with steam roads.

The Copper Range Railway Company filed its articles in February. It is capitalized at \$5,000,000, and is to run through Houghton, Gogebic, and Ontonagon Counties.

Decisions.—In July the State Supreme Court decided against the validity of the so-called McLeod law, which authorized the appointment of the Detroit Street Railway Commission, whose object was the purchase and municipal ownership and operation of the street railways of Detroit. The decision is that the law is unconstitutional; that there is no such office as the "Detroit Street Railway Commission"; that Gov. Pingree and the other commissioners have no title thereto; and that judgment of ouster must be entered against them.

The law requiring railroads to sell 1,000-mile tickets for \$20 was decided unconstitutional by a majority of the United States Supreme Court in April. It was declared to be discrimination in favor of a few persons having occasion to travel much on the roads at the expense of others having less occasion to travel and unable to buy a large amount of transportation at a time.

In October the State Supreme Court gave an opinion that a woman may not hold the office of prosecuting attorney though elected to it, because not herself an elector, holding that, though the law is silent on the subject, it must be so understood. Justice Moore dissented from the opinion of the majority of the court, holding that, as the State concedes the right of women to practice law, there is no reason why it should not allow them to hold an office the duties of which pertain almost wholly to the practice of law.

Insurance.—The Insurance Commissioner in March declared against what is known as "special board agency contracts," by which a company would form a board of 200 to 400 members living in different parts of the State. They were supposed to be inactive agents, and the company agreed to set aside \$1 per \$1,000 on each annual premium every year and place it in a special fund to be divided among those holding such contracts. The commissioner directed all companies operating under the plan to abandon it.

Legislative Session.—The regular session of the Legislature extended from Jan. 4 to June 24. The Governor called a special session, which began Dec. 18 and was not finished at the close of the year.

R. B. Loomis was President of the Senate; Edgar J. Adams was Speaker of the House, and George F. Gillam Speaker *pro tempore*.

Julius C. Burrows was elected United States Senator. Albert Pack was a candidate before the Republican caucus for the nomination. D. J. Campan was the Democratic candidate.

A total of 1,789 bills and joint resolutions were introduced, and more than 500 were passed.

A State tax commission was established, to consist of three members, appointed by the Governor for terms of six years at salaries of \$2,500. Its duties are to supervise assessing officers and assessments, and advise the Legislature relative to desired changes in the tax laws and the specific rate necessary to make the railroads pay a tax equal to a tax on the cash value of their property. This commission will hear appeals and adjust unequal assessments and equalization. It must hold six regular sessions a year.

Many measures affecting taxation were proposed, but few of them passed. One of the few was that imposing a direct inheritance tax of 1 per cent. on personal property exceeding \$5,000, and a collateral inheritance tax of 5 per cent. on all property over \$500.

A bill known as the "Atkinson bill" was passed, creating a board of assessors to tax railroad, telegraph, telephone, and express companies on the total value of their property, including franchises, at the average rate of State, county, and municipal taxes. But in April the Supreme Court gave a decision in regard to an act of 1881 making similar provisions in regard to telegraph and telephone companies, declaring it unconstitutional, on the ground that it was contrary to the law for a uniform rule of taxation. As this settled the question of the validity of the Atkinson law, the Legislature passed an act taxing telephone, telegraph, and express companies on their gross receipts in lieu of all other taxes. Railroads are taxed on gross receipts.

Other measures relating to taxation were:

Making abstract books subject to levy and sale on execution.

Allowing water-power companies to pay 1 per cent. on their capital stock in lieu of real-estate general taxes.

To make lands returned delinquent for taxes for five years subject to homestead entry.

To require each assessing officer to swear each taxpayer to a statement of his assets.

A commission was established to negotiate with all specially chartered railroad companies for the surrender of their charters, in order that they may be incorporated under general laws.

Submerged and swamp lands bordering on the Great Lakes are to be set apart as public parks and hunting and fishing grounds. Changes were made in the close seasons for birds. It is made unlawful to take or kill the mourning dove.

Among the more important acts was the anti-trust law. It defines and prohibits "trusts, monopolies, and combinations of capital, skill, or arts to create or carry out restriction in trade or commerce; to limit or reduce the production or increase or reduce the price of merchandise or any commodity; to prevent competition in manufacturing, making, transportation, sale, or purchase of merchandise, produce, or any commodity; to fix at any standard or figure whereby its price to the public consumer shall be in any manner controlled or established any article or commodity of merchandise, produce, or commerce intended for sale, barter, use, or consumption." The proof of the existence of the combination and the defendant's connection are sufficient, the contracts are void, and the injured person may collect twofold damages.

Property sold on mortgage foreclosure may be redeemed wholly or in part within six months. Deeds given on such sales must be deposited with the register and become good only on the expiration of the six months without redemption. The sale must not be ordered until six months after the bill for foreclosure is filed.

Societies not incorporated are forbidden to receive minor children, and societies receiving such children must be under supervision of the Board of Charities.

Persons proving injury from mob violence may collect \$500 to \$5,000 from the county.

Acts relating to military matters were: Giving preference for public employment to soldiers of the Spanish war, as well as of the civil war; instructing the Adjutant General to compile histories of soldiers and sailors of the two wars; providing for relief of needy soldiers of the Spanish war and women who were nurses of soldiers of the civil war; providing that all able-bodied citizens—not exclusively white men, as heretofore—from eighteen to forty-five years old shall be subject to military duty unless exempt.

Appropriation was made for establishing an agricultural and horticultural experiment station on the Upper Peninsula; provision was made for farmers' institutes; \$4,000 was appropriated for printing and distributing bulletins of the experiment station; and an act was passed for the incorporation of societies for improvement of farm products and methods of marketing them.

Penalties were provided for obstructing the dairy and food inspectors in the performance of their duty, and for the adulteration of milk and of any ground grain or feed by the use of oat hulls. Process butter must be plainly labeled.

It was enacted that there shall be at each insane asylum a resident woman physician. The laws on commitment and maintenance of the insane were amended, and the name of the Asylum for Dangerous and Criminal Insane was changed to the State Asylum. The inmates of this institution are to be limited to those escaping punishment on account of insanity for murder, rape, arson, or attempt at great bodily harm, instead of, as formerly, for any crime. It was also provided that a resident woman physician be employed at the Industrial Home for Girls.

It was made unlawful for insurance companies to make false statements in reports or advertisements on penalty of forfeiture of their charters, and directors and officers were made liable to fine and imprisonment. Foreign companies are required to deposit as large a sum as their own States exact of foreign companies. Life companies of the State may transact sick and accident business.

The laws regarding reports of manufacturing companies were amended. They must give names and addresses of all officers and directors, and neglect to report makes the directors liable for debts contracted in the time of such neglect.

For regulating coal mining it was provided that the Commissioner of Labor should appoint an inspector; that escape shafts should be made in all mines 300 to 400 feet from the main shafts; that only competent engineers should be employed to operate cages and hoists, which must have catches and covers and take but 10 men at one time.

Children must not be employed in factories between 6 P.M. and 7 A.M. Except on permission of the factory inspector, wearing apparel, flowers, cigarettes, or cigars may not be manufactured in dwellings. This does not apply to the employment of seamstresses in families. Emery wheels and belts must be provided with fans on the order of the Commissioner of Labor.

The amounts of required capital for banks in places of various sizes were raised. It was made a felony for a bank to receive deposits after it is believed to be insolvent, instead of a misdemeanor, as heretofore. Loans to officers or em-

ployees must be approved by the directors. Loan associations are to report quarterly to the Bank Commissioner. Loans or deposits of insolvent associations are a lien upon the assets.

It was directed that such university and primary school lands as are still unsold shall be withdrawn from the market, newly appraised, and restored.

The principal acts relating to education were: Providing for the better support of teachers' institutes; raising the State tax for the university from one sixth to one fourth of a mill; providing for an additional normal school at Marquette; changing the name of the Michigan State Normal School to the Michigan State Normal College; repealing the uniform text-book law of 1897; providing for the incorporation of associations for establishing loan funds for the benefit of students of the State, to assist them in attending the various State educational institutions; providing for the establishment of day schools for the deaf.

For regulating the practice of medicine a board of registration was created, to be composed of 10 physicians—5 allopathic, 2 homœopathic, 2 eclectic, and 1 physio-medic. They are to enforce the law requiring registration on presentation of diplomas from approved medical schools or on examination. Foreign certificates granted under similar conditions will be received only in cases where the State or county issuing them extends the same privileges to holders of Michigan certificates. Provision was also made for the licensing of veterinarians, and an act was passed giving the bodies of Kent County paupers to the Grand Rapids Medical College for dissection.

A State board of horseshoers' examiners was created; a State board of barbers' examiners; a permanent forestry commission; a commission for the Ohio Centennial and Northwest Territory Exposition; and a State library commission of four members.

Acts were passed requiring the labeling of all gasoline, benzine, and naphtha sold at retail; providing for the inspection of illuminating oils; prohibiting the use of the products of petroleum for illuminating which have been adulterated or which will emit a combustible vapor at a temperature less than 121° F., but permitting the use of gasoline lamps approved by the State Oil Inspector.

Other measures were:

Reducing the legal rate of interest from 6 to 5 per cent., and the contract rate from 8 to 7.

For reorganizing the militia.

To protect side paths from injury.

Providing that in divorce cases courts of record may punish refusals to pay alimony.

Providing that a wife may dispose of her rights in her husband's lands at the age of eighteen, instead of at twenty-one.

Providing that private files in cases where it is deemed best by the probate judge to keep secret the date of a marriage shall be open to inspection only on the order of the circuit or Supreme Court, made on the request of the person so married or when necessary to protect property rights.

Constituting the making of false statements in advertisements a misdemeanor.

Making it a felony to advocate polygamy.

Providing for ten days' notice to pledgor before sale of collateral securities.

Making claims against railways for labor remaining unpaid ten days after being presented liens upon all property; also claims for personal injuries or death.

Limiting the time for action on account of personal injuries to three years.

Among bills vetoed was one providing a bounty of one half a cent a pound on beet sugar, on the ground that there was no limit to the amount any factory could receive; it was estimated that if the factories now built and those in process of construction should be run to their full capacity they could draw, at the rate named, \$450,000 a year from the State treasury. There is a law of 1897 under which, if its validity is sustained, manufacturers may claim a bounty of one cent a pound. In September, October, and November, according to reports of companies, 9,855,555 pounds of sugar were made.

A bill making it a misdemeanor for one not a member of the Grand Army of the Republic to wear the button of the order was vetoed, on the ground that the bill sought to make the Legislature a collection agency for army posts, that the buttons are made from captured cannon, and that all Union soldiers who risked their lives should have a right to wear them.

A bill that passed the Senate and failed in the House by the lack of only one vote was one allowing any city to adopt the single-tax plan by vote after petition of 20 per cent. of the taxpayers.

The object of the special session of the Legislature, which began Dec. 18, was stated in the call to be "to consider the submission of an amendment or amendments to the Constitution which will permit the enactment of laws that will provide for the equal taxation of all property by the assessment of the same at its cash value, and such other matters as shall be submitted by special message."

Political.—An election was held in April for a justice of the Supreme Court and two regents of the university. The Republicans nominated Claudius B. Grant for Justice and H. S. Dean and Eli R. Sutton for Regents. Thomas E. Barkworth was the Democratic candidate for Justice and E. F. Legendre and Stanley E. Parkhill for Regents. The last named is a Populist. The Populists who did not unite with the Democrats nominated John M. Harris for Justice, the Prohibitionists named Frank B. Clark, and the Socialists George A. Eastman. The Republican candidates were elected, Justice Grant having a plurality of 51,346.

Two proposed constitutional amendments were adopted by vote at this election: Providing that counties may incur road and bridge debts of half of 1 per cent. of valuation without the vote of the people, and allowing the Legislature to abolish the powers of township commissioners and overseers of highways; permitting the Legislature to provide additional circuit judges in St. Clair County. Two others that were proposed were rejected: Requiring the Legislature to provide a State printing and binding establishment at the capital; creating an intermediate court between the circuit and Supreme Courts to have such jurisdiction as might be prescribed by law.

MINNESOTA. a Western State, admitted to the Union May 11, 1858; area, 83,365 square miles. The population, according to each decennial census since admission, was 172,023 in 1860; 439,706 in 1870; 780,773 in 1880; and 1,301,826 in 1890. By the State census of 1895 it was 1,573,350. Capital, St. Paul.

Government.—The following were the State officers in 1899: Governor, John Lind; Lieutenant Governor, Lyndon A. Smith; Secretary of State, Albert Berg; Auditor, Robert C. Dunn; Treasurer, August T. Koerner; Attorney-General,

Wallace B. Douglas—all Republicans except the Governor, who was elected on a fusion ticket of Democrats and Populists; Commissioner of Insurance, J. A. O'Shaughnessy; Adjutant General, George C. Lambert; Chief Grain Inspector, A. C. Clausen, till August, when he resigned and was succeeded by Edwin S. Reishus; Chief Justice of the Supreme Court, Charles M. Start; Associate Justices, L. W. Collins, Calvin L. Brown, John A. Lovely, and Charles L. Lewis; Clerk, Darius F. Reece. All the justices are Republicans.

Finances.—The amount in the State treasury at the beginning of the year was \$872,574.69. The appropriation bill carried \$1,883,265.28, about \$70,000 less than that of the Legislature of 1897. The tax rate is 1.5 mill.

Education.—At the June commencements of the normal schools Winona graduated 101 students, St. Cloud 74, and Mankato 65, but in the year about 100. Duluth is to have a State normal school. The Legislature refused a proposed appropriation of \$80,000 for continuous normal-school sessions.

Charities and Corrections.—There were 7 graduates at the deaf-mute school in Faribault, 2 post-graduates, and 8 others honorably discharged in June.

The hospitals for the insane have about 3,265 patients.

The annual report of the Soldiers' Home shows the following statement: Annual appropriation, \$20,000; per capita from the United States Government, \$22,376.08; pensions turned in, \$12,710.40; balance on hand from last year, \$1,600.78; from relief, by vote

of board, \$17,000; total, \$79,687.26; warrants issued till Aug. 1, 1899, \$56,086.84; balance, \$23,601.42.

For the relief of soldiers outside of the home there were receipts during the past year amounting to \$91,285.71, with expenditures amounting to \$43,465.12. The expense for repairs was \$1,553. In August 562 soldiers outside the institution were receiving aid from the relief fund.

The report of the managers of the Penitentiary, at Stillwater, shows that the results of the introduction of the binding-twine industry are most satisfactory. In the two years ending July 31, 1898, the twine factory employed 140 convicts, who produced enough twine to yield the State a net profit of \$130,000. Besides helping the men and aiding largely in the support of the institution, the factory has had a controlling influence upon the market for twine in the State.

The whole number of convicts is nearly 500. The State Training School has an average of about 367 inmates.

Products.—The State is credited with having produced 36,000 tons of sugar beets in 1898. The same year the wheat yield was about 78,000,000 bushels. In 1899 it was estimated at 86,000,000 bushels.

From reports of 673 creameries—all that are registered—it is found that \$2,700,000 capital is

invested in the industry; that milk is supplied from 400,000 cows; that 1,382,718,000 pounds of milk were received in 1898 and 62,849,000 pounds of butter were made, of which 50,000,000 pounds were shipped from the State; that the gross receipts were \$10,370,000 and the operating expenses \$1,094,500; and that \$8,546,400 was paid to the 52,320 patrons.

From the State fish hatchery 2,110,000 trout were distributed in 1899. The constant high water made it impossible to get many pike, and only about 400,000 were hatched and distributed. For the same reason only about 100,000 bass and croppies were secured. These are not hatched at the hatchery, but are caught and distributed. They are secured along the river, mostly near Hastings.

Labor.—The Labor Commissioner's report shows that 3,303 establishments were visited in the year, where were employed 73,330 persons, of whom 62,696 were men, 10,045 women, 471 boys, and 118 girls. The inspection does not include the farming industry. The largest single item of labor is found in the 70 sawmills, 9,078 persons, of whom 23 are women and 2 boys, the rest men. Next come the railroad shops, yards, and roundhouses, of which there are 153.

The nonmanufacturing industries are under three heads—department stores, retail stores, and wholesale stores. They number 370 establishments visited, 6,432 men, 2,365 women, 180 boys, and 58 girls.

Insurance.—The township mutual fire companies are described as the most economical insurance companies known. There are about 125 in the State, carrying \$98,000,000 farmers' risks, at an average cost of 15 cents on the \$100. Commissioner O'Shaughnessy estimates that they save the State \$250,000 to \$350,000 a year in premiums. The township mutual is not confined to one town, but to contiguous territory. One of them, at Eagan town, in Dakota County, reported its running expenses for the year as \$8.93. It carried \$38,000 insurance. The president is sometimes paid a stated salary, sometimes 10 cents for every policy he signs. The secretary is usually paid for his time, sometimes 50 cents for every policy he writes, sometimes both. The treasurer usually gets a percentage on the money handled. The salary list of one company that has \$187,000 insurance was \$14 for the secretary, \$5 for the treasurer, and \$22.50 for the directors. One of the largest companies so far reporting is that of Rolling Stone, Winona County, with \$2,576,000 in force. Its operating expenses were \$114 for salary and fees of the president, \$189 for secretary, \$115 for treasurer, \$94 for directors; total, \$512. The lowest rate ever made on farm risks is said to have been 45 cents per \$100 on a five-year policy. At that rate the companies agreed that it was not profitable.

Banks.—The Germania State Bank was closed by the Examiner in July. After being closed in January, 1897, it was reorganized, and it has been doing a moderate business two years.

There was an increase of more than \$9,000,000 in the individual deposits held by the national banks of Minnesota outside of the reserve cities of St. Paul and Minneapolis in the year ending in July. In July, 1898, the banks held as individual deposits \$10,181,087. According to the statement made by these banks to the Controller of the Currency at the close of business on June 30, they held \$19,996,850, or nearly double their holdings of the previous year. The loans and discounts have also increased nearly \$3,000,000, and are now quoted at \$16,991,866.

JOHN LIND,

GOVERNOR OF MINNESOTA.

Lands.—In January the Secretary of the Interior affirmed the decision of the Commissioner of the General Land Office in the case of Archbishop John Ireland, involving the title to 33,178 acres in the State. It is held that under the first contract, made with the St. Paul, Minnesota and Manitoba Railroad Company on July 17, 1880, Archbishop Ireland was not a purchaser, but that under the second contract, made on March 30, 1883, he was a purchaser. Accordingly, the lands covered by the first contracts will not go to him, while he will receive those under the second contract. The case has been pending several years, and involves the titles of a large number of settlers. The archbishop secured the lands for settlers, an Irish settlement was made, and most of the lands have passed to these settlers. There still remained, however, a good many acres not sold or only partly paid for. Most of the lands are in the vicinity of Graceville.

The trouble over the Cass lake lands appears to have been settled in July by a decision of the secretary to sell the lands to the highest bidder as timber land under the Nelson act. Although the settlers are regarded as trespassers, yet they have settled with the expectation that the lands were to come into the market, and therefore it is thought best not to press them to leave.

National Forest Organization.—At Chicago, Aug. 11, an organization was formed with the object of preserving the forests about Itasca, Leech, Cass, and other lakes in northern Minnesota. It is called the Minnesota National Park and Forestry Association. Cyrus M. Northrup, of the University of Minnesota, is president, and Gov. Roosevelt, of New York, first vice-president. The object is to preserve as a great national park, as far as practicable, the native forests, waters, and topography of an extensive tract in the northern part of Minnesota, together with the wild game in the woods; that an intelligent system of forestry may be established therein, and that citizens may have for generations to come a great region abounding in native and cultivated forests and waters, to which they can resort in search of health and enjoyment, and that the preservation and renewal of the forests may be inaugurated in the central Western States.

Court Decision.—The law of 1894 prescribing the manner of listing for taxation the property of companies other than banking, railroad, telegraph, and insurance was declared void, in so far as it provided for deducting the indebtedness of a company from the value of its stock, on the ground that the result is inequality of taxation.

Legislative Session.—The thirty-first session of the Legislature began Jan. 3 and continued till April 18. Lieut.-Gov. Smith presided over the Senate and Hon. A. N. Dare over the House.

In joint session, Jan. 18, United States Senator Cushman K. Davis was re-elected, having received 136 votes in both houses, against 42 for Charles A. Towne, candidate of the Democrats and Populists.

A constitutional amendment was passed, to be submitted to vote at the November election of 1900, for permitting permanent school and university funds to be invested in local government bonds which will not make debts exceed 15 per cent. of assessed valuation. The present limit is 7 per cent.

Resolutions were passed requesting representatives of the State in Congress to use their influence in favor of a constitutional amendment providing for the election of Senators by direct vote of the people; also asking them to oppose the seating of Mr. Roberts, of Utah.

Very soon after the opening of the session a concurrent resolution was passed calling for investigation of alleged abuses in connection with the State binding-twine plant and the administration of the grain inspection department. As a consequence of the inquiry an act was passed to regulate the sale of twine made at the Penitentiary, and a board of appeals for grain inspection disagreements was created.

Hereafter the Railroad and Warehouse Commissioners are to be elected by the people, not appointed by the Governor; and the term is lengthened from three years to four.

New State boards and commissions are: A board of forestry, a board of electricity, and a library commission. Forest reserves were designated, and the fish and game laws were amended. Electricians must be registered after evidence that they possess required qualifications, but employees of interstate telegraph and telephone companies are exempt. The Library Commission is to provide for traveling libraries. A commission was created to settle State claims when collection is unfair or doubtful.

The legal rate of interest was reduced from 7 to 6 per cent. Interest on State deposits in banks may not be less than $2\frac{1}{2}$ per cent. instead of $3\frac{1}{4}$, as heretofore.

State institutions are forbidden to exceed their appropriations except that, in cases of calamity, the Governor, Auditor, and Treasurer may authorize special necessary expenditures, and debts made before appropriations are not lawful. Cities of fewer than 10,000 population may issue bonds for not more than \$16,000 for sites for State institutions. Asylums for the insane are to be built at Anoka and at Hastings, on the cottage plan; the cottages are to be not more than two stories high; for land \$15,000 was appropriated, and for buildings \$125,000. Orphan asylums and homes for the indigent were exempted from taxation. Two or more counties with a joint population of 25,000 may establish district almshouses.

The election laws were changed in some particulars. The use of voting machines is allowed. Townships are permitted to buy voting places in incorporated villages. When townships cast fewer than 400 votes they may be consolidated to form election districts. In regard to primaries, it was provided that in counties of 200,000 the nominees of the parties must be chosen by popular vote on Tuesday, seven weeks before the election. The same election officers must act for all parties. Assessors are to be elected by the people, not the council, in villages constituting separate election districts.

Measures in reference to corporations provided that foreign corporations are to have public offices in the State and file articles and statements of property with the Secretary of State, license fees to be on proportion of capital stock. After assignment of a corporation or appointment of a receiver the court may proceed at once, after petition of creditor, assignee, or receiver, to enforce the law in regard to the liability of stockholders, and make assessments. Stockholders not already parties to suits may be assessed after final judgment. Co-operative associations that have not declared a dividend for five years may be dissolved by the court on petition of five stockholders.

One fifth of the net profit of a bank, instead of one tenth, is to go to the surplus fund.

A defendant is permitted to file an affidavit of prejudice against a court commissioner when brought before him for examination.

A law was made providing for the licensing and

regulating of commission merchants under the supervision of the Railroad and Warehouse Commission.

In cases of redemption after foreclosure the rate of interest from the time of sale shall be as on the mortgage, if that be less than 7 per cent.

An antitrust law defines and prohibits such combinations, and makes violation of the law a felony. The charter is forfeited and contracts can not be enforced.

The laws in regard to liens were revised. It was provided that, in order for a mechanic's lien, the contractor must furnish the owner on demand, within fifteen days after the work is done, statements of the amounts and persons to whom payment is due.

Changes in taxation laws made the State tax on express companies 4½ instead of 3 per cent. of gross receipts. Minerals and standing timber are to be reckoned as real estate for purposes of taxation, and their removal before payment of taxes is a crime.

Cities of more than 50,000 inhabitants may issue bonds to pay existing floating debts, and may issue certificates of indebtedness in anticipation of taxes for any use named in the estimate. Villages may bond themselves for present floating debt over \$3,000.

It was made a misdemeanor to sell baking powder containing injurious substances, and the ingredients must be named on the label. It is also a misdemeanor to add antiseptics to milk, cream, butter, or cheese.

A law was made to prevent adulteration of white lead and mixed paints.

Acts affecting railroads provided that foreign corporations in control of roads in the State are to be subject to State laws; that parallel lines must not consolidate; that on orders from the Railroad and Warehouse Commission companies must build platforms for loading cars; that they must furnish free transportation for shippers of car loads of live stock; that when live stock is delayed in a journey over two roads the owner may sue them jointly if uncertain which is responsible; that after rates on lumber, live stock, coal, flax, or grain have been established sixty days they may not be raised except with consent of the commission. The commission may require a uniform gauge. Stealing rides on railroad trains and on street cars is prohibited. The right to operate street railroads outside of cities and villages on public roads may be granted by county commissioners for terms not exceeding twenty-five years, and such roads may exercise eminent domain outside of cities.

The act providing for bounty on beet sugar was amended. The limit of \$40,000 a year was fixed, and beets containing 12 per cent. of sugar must be paid for at the rate of \$4.25 a ton. The Governor vetoed a bill appropriating \$19,975 to pay sugar bounties due under the act of 1895, but the House repassed it by a vote of 84 to 22.

The school laws were amended so as to fix State aid to rural schools at \$35,000 annually, instead of \$20,000. Not more than 30 instead of 20 per cent. of districts in a county may be aided in one year. Schools of two rooms, with one teacher holding a first-grade certificate and at least one holding a second grade, will be entitled to \$100 a year, instead of \$50. School districts of more than 50,000 inhabitants may levy an additional school tax of 1½ mill, and the special district tax in cities under 10,000 is not to exceed 15 mills instead of 9, as heretofore, for support of schools.

A university certificate is made valid two years from its date. The Governor is authorized to appoint arbor and bird days.

A compulsory school law was passed, requiring attendance of children from eight to sixteen for the entire session in all districts and cities.

Cities of 50,000 population may spend \$50,000 a year for park land of over 15 acres. Laws permitting road and bridge improvement were enacted.

The office of probation officer was created. These officers are to be appointed by the State Board of Corrections and Charities in counties of 50,000. It is their duty to attend trials of juvenile delinquents, and when sentence is suspended to have oversight of the child and make reports. Another new office is that of custodian of documents and supplies.

It is made unlawful to bring dependent children into the State without the consent of the State Board of Corrections and Charities. The inheritance of an adopted child dying a minor and unmarried must go to the heirs of the person from whom the property was received.

Several acts refer to soldiers of the Spanish war. Students enlisted for that war are entitled to free tuition at the university. The Soldiers' Home is open to indigent soldiers of the war. The will of a soldier or sailor who died in the Spanish war is valid without witnesses if it is entirely in the handwriting of the testator. The law regarding the burial of soldiers at public expense was extended so as to include soldiers of the Spanish war and all dying in the United States service and brought into the State for burial.

Provision was made for a naval reserve of eight companies.

Other provisions were:

Making records of foreign countries admissible as evidence.

Making it unlawful to deface the United States or the State flag, or to use them for advertising.

That no title to public ground may be acquired by occupancy.

Exempting bicycles and watches from execution.

To protect side paths from injury.

Making necessities furnished to a family chargeable to the property of the husband and wife, or of either.

Legalizing instruments without seals and abolishing private seals.

That all saloons shall be closed from ten to three on Decoration Day in places where memorial exercises are held.

Increasing the bounty on wolves.

Prohibiting the docking of horses' tails.

Declaring Jan. 1, Dec. 25, and Feb. 12 public holidays.

Raising the age of consent from fourteen to sixteen years.

MISSISSIPPI, a Southern State, admitted to the Union Dec. 10, 1817; area, 46,810 square miles. The population, according to each decennial census since admission, was 75,448 in 1820; 136,621 in 1830; 375,651 in 1840; 606,526 in 1850; 791,305 in 1860; 827,922 in 1870; 1,131,597 in 1880; and 1,289,600 in 1890. Capital, Jackson.

Government.—The following were the State officers during the year: Governor, A. J. McLaurin; Lieutenant Governor, J. H. Jones; Secretary of State, J. L. Power; Treasurer, A. Q. May; Auditor, W. D. Holder; Superintendent of Education, A. A. Kincannon; Attorney-General, W. N. Nash; Adjutant General, William Henry; Chief Justice of the Supreme Court, Thomas H.

Woods; Associate Justices, S. H. Terral and Albert H. Whitfield; Clerk, Edward H. Brown—all Democrats.

Finances.—There was cash in the treasury on Oct. 1, 1897, \$53,842.06. The receipts for the fiscal year beginning Oct. 1, 1897, and ending Sept. 30, 1898, were \$1,572,342.24, which, added to the amount in the treasury, made the revenue for the fiscal year 1897-'98 \$1,626,184.30. The disbursements on pay warrants were \$1,442,618.16, and \$115 on special warrants of 1894-'95, leaving \$183,451.14 in the treasury.

There was received in the fiscal year from Oct. 1, 1898, to Sept. 30, 1899, inclusive, \$1,603,963.78, which, added to the sum in the treasury, made the revenue \$1,787,414.92. The disbursements for the fiscal year were \$1,453,634.12 on pay warrants and \$15 on special warrants of 1894-'95, leaving \$333,765.80 on Oct. 1, 1899.

Under an act approved May 15, 1897, \$85,000 was borrowed in June and July, 1897, and obligations were given therefor, payable on or before Jan. 10, 1899. These obligations for \$85,000 have been paid, and are included in the disbursements for 1898-'99.

The payable bonded indebtedness of the State at the beginning of the year was \$1,003,000, including the \$400,000 bond issue of 1896. The nonpayable debt is \$1,635,102.50. This is the Chickasaw school fund, the university fund, and agricultural bonds. On this the interest alone is payable. The outstanding warrants were \$20,982.35, Oct. 1, 1899. The Auditor's report shows that the issue of warrants from Oct. 1, 1897, to Sept. 30, 1898, amounted to \$1,469,070.12, and \$1,425,332.12 from Oct. 1, 1898, to Sept. 30, 1899.

Banks.—The Auditor's report, published in August, shows that 91 State banks are doing business. Their resources and liabilities are each \$15,807,578.32.

Valuation.—The personalty assessments of the counties for 1899 show a total of \$48,258,651, an increase of more than \$1,000,000 over 1898. The number of polls reported for 1899 is 263,877, which is a slight decrease. The total realty and personalty valuation of the State, including railroad assessments for 1899, is \$187,416,935.

Corporations.—The biennial report of the Secretary of State shows that in the last four years 565 charters of incorporation have been recorded. Since the date of the last biennial report 285 new enterprises have been chartered. Practically all the charters for cotton mills have been granted within the past two years.

Five railroads, 6 steamboat and packet companies, and 13 oil mills have been chartered since the previous biennial report.

Education.—The State University buildings and grounds are valued at \$300,000, and the apparatus, library, and collections at \$60,000. The income consists of \$32,643 interest paid annually by the State on funds derived from sale of land granted by Congress. No tuition fees are charged except in the department of law, where the fee is \$50 a session and a matriculation fee of \$10 from all academic students. The revenues from these sources amount to about \$5,000 a session. Chancellor Fulton urges enlarged facilities, and says that a school of medicine should be established, while the schools of civil and electrical engineering, pharmacy, and dentistry are other pressing needs only awaiting funds to develop them.

The enrollment of public-school pupils in 1898-'99, exclusive of separate school districts, was as follows: White, 150,099; colored, 179,165; total, 328,264. Average attendance: White, 86,060;

colored, 94,843; total, 180,903; difference between total enrollment and total attendance, 148,361. Average salaries of teachers: White, \$30.49 a month; colored, \$19.59 a month. Total enrollment, separate school districts: White, 17,079; colored, 12,803; total, 29,882. Average attendance, separate school districts: White, 12,319; colored, 7,604; total, 19,923; difference between total enrollment and total attendance, 9,959.

Health.—From the biennial report of the State Board of Health, published in December, it is learned that in 1898 yellow fever appeared at 30 places in the State, resulting in 1,386 cases, of which 1,017 were white and 369 colored. The number of deaths was 84. The disease was more virulent this year than for the previous two years.

Penitentiary.—The reports of the Board of Control and the warden and clerk of the Penitentiary show that the convicts are humanely treated, are well fed and comfortably clothed, and have medical attention and are nursed when sick, and have such other care and provision as proper for prisoners undergoing punishment for crime, and this not only without any expense to the State treasury, but a profit is derived from the labor of convicts.

The plantations owned and rented made 1,788 bales of cotton and 35,600 bushels of corn. The 9 plantations on the share system made 4,585 bales of cotton, giving 2,292½ bales to the State and the same number to their owners. The State also made 36,200 bushels of corn, giving 18,100 to the State. The State picked 3,540 bales of its cotton, and housed the entire crop. The warden calculates an income of \$35,000 or \$40,000, which is more than the State ever has received from a crop since the organization of the present penitentiary system.

Insane.—The average number of patients under treatment for the year ending in October was 886. The number of white male inmates is given as 205; white females, 251; colored males, 200; colored females, 191. The actual increase in the number of patients in 1899 over 1898 was 18.

Deaf and Dumb.—During the session of 1897-'98 there were 97 pupils in the State institution. The year 1898-'99 showed an attendance of 96.

Blind.—The report of the Blind Institute gives an average attendance from May, 1898, to September, 1899, of 27 pupils, at a cost of \$23.46 per pupil per month.

Railways.—The total mileage in the State in 1898 was 2,653,156 miles, and in 1899 the mileage was 2,674,508. The increase of 1898 over 1897 is 80.37 miles, and of 1899 over 1897 22,352 miles.

The total valuation of all railroad property in the State for 1899 was \$25,731,165. The valuation of palace car companies was \$94,400.

Lawlessness.—In January, in charging the Hinds County Grand Jury, Judge Powell said: "Some weeks since I read in a newspaper 'that the only thing in Mississippi which was cheaper than 4-cent cotton was human life.' It was a fearful commentary upon the law and order of a great State. We are accustomed to boast that we live at the close of nineteen centuries of Christian civilization, and that Christ, and him crucified, is preached from Greenland's icy mountains to India's coral strand to a believing world. We are proud of the fact that our Anglo-Saxon forefathers wrested from the hands of a reluctant king the great Magna Charta of English liberty, in which every man, however humble, is guaranteed an open and fair trial by a jury of his peers. And yet, strange to say, hardly a week passes that we do not hear of the murderous work of some infuriated mob, until finally, to cap the

climax of our shame, a mob actually takes possession of the jail in our capital city and threatens to storm the State Penitentiary itself. Surely the time has come to call a halt or else to admit that organized murder is the supreme law of the land. Surely the time has come to strike this representative of anarchy with the mailed hand of the Law, before the law itself—yes, our very civilization—goes down in wreck and ruin. It is to you, gentlemen, clothed as you are with the majesty and power of the law, that the people look to vindicate the law and bring the guilty to punishment."

A triple lynching occurred in March in Yazoo County, in which three negroes lost their lives. They were taken from an officer of the law by an armed mob and their bodies were riddled with bullets and weighted with cotton ties and sunk in Yazoo river. None of the participants in the deed of violence are known. The crime of the negroes was taking part in a small race disturbance in an adjoining county. About two weeks ago, near Midnight, a small village in Sharkey County, several white citizens of the neighborhood were shot at from ambush, and the three negroes lynched fired on two planters who were riding along the public road. Two other citizens were fired on in a similar manner. Because of these acts a crowd of 200 whites assembled from Yazoo and Sharkey Counties to hunt down the ambushers. Two negroes, who were regarded as the leaders, made their escape. A great many others were arrested, but all were discharged except the three above mentioned, who were turned over to the sheriff of Yazoo County. He decided to hold the negroes to await the orders of the sheriff of Sharkey County. That official sent a deputy for the prisoners, and he started with them on a steamer. At Silver City the negroes were taken from the officer by an armed mob, hurried ashore, and lynched.

In September a movement was set on foot to organize a mob between Brandon and Raleigh for the purpose of lynching James McAlpin, the alleged murderer of his neighbor, Jasper Thornton, in Smith County. When news reached Gov. McLaurin of the projected attempt he went to Brandon and accompanied the prisoner to the place of trial, leaving orders for the Mississippi Rifles to hold themselves in readiness. By the Governor's prompt action a lynching was avoided.

In December two negroes were lynched by a mob at Bolton for the murder of an aged man, Milton S. Harre. News of the murder reached Bolton on the day it was committed, and the town marshal and a posse set out in search of the murderers. Robbery was the incentive of the act. Two negroes were arrested, and both confessed. The prisoners were lodged in the calaboose, and shortly after dark a mob of 150 unmasked men broke open the frail structure and took possession of them. They carried the prisoners about a quarter of a mile from town and hanged them to a bridge.

Decisions.—In April an interesting decision, concerning the rights of railroad companies, was handed down by Chief-Justice Woods, of the Supreme Court. The suit was that of D. C. Latimer vs. the Illinois Central Railroad Company. Latimer alleged that he had been maliciously libeled by the company by having his name placed on what he called a "black list." He had been employed as a conductor, and in answer to the suit the company charged that on Aug. 25, 1896, he had wrongfully appropriated \$17.25 collected in cash fares on his run. The company immediately

discharged him. The company denied that it kept such a thing as a black list, but admitted that it kept a record of the 30,000 men in its employ in order to ascertain who are reliable, and that it employs men to make reports on the habits and conduct of these workmen. Chief-Justice Woods held that the employment of these men is absolutely necessary both as a protection to the company and to the traveling public; that the action of the company in keeping a history of its workmen is in strict accord with the law, and is in no sense of the word a black list.

In May Associate-Justice Terral, of the Supreme Court, handed down an opinion in the suit of S. Sokolosky vs. New South Building and Loan Association, holding that under the laws of the State a fixed premium charged by a building and loan association is usurious. The decision, however, only affects foreign companies. In Justice Terral's decision he says: "A domestic building and loan association is authorized by law to exceed the legal rate of interest, but such is not allowed to a foreign building and loan association, and comity would not authorize an association of the last-named kind to make contracts here which, under our jurisprudence, are held to be usurious."

Constitutional Amendments.—The total vote of the State on constitutional amendments at the autumn election was: Yeas, 21,169; nays, 8,643. Although the vote showed a large majority in favor, the question was raised that the amendments failed of adoption because the highest vote was not a majority of the total vote cast for the State ticket. The Legislature will be called upon to settle the question. The amendments provided for striking out five sections of the Constitution relating to the judiciary and inserting new ones providing for a Supreme Court of three judges; the division of the State into three Supreme Court districts, and convenient circuit and chancery court districts; fixing the terms of the several judges, etc.

Political.—The Democratic State Convention was held in Jackson, Aug. 23. A. H. Longino was nominated for Governor. The other nominations were: For Lieutenant Governor, J. T. Harrison; Attorney-General, Monroe McClurg; Auditor, W. Q. Cole; State Treasurer, Robert Stowers; State Revenue Agent, Wirt Adams; State Land Commissioner, E. H. Nall; Railroad Commissioner, J. C. Kincannon.

On the same date the Populist State Convention was also held in Jackson. Dr. R. K. Prewitt was nominated for Governor. The other nominations were: Lieutenant Governor, J. W. Prude; Secretary of State, N. M. Hollingsworth; State Auditor, T. J. King; State Treasurer, John A. Bailey; Attorney-General, J. J. Dennis; Superintendent of Education, J. H. Simpson; State Revenue Agent, J. W. Anderson; Clerk of Supreme Court, E. E. Anderson; Land Commissioner, T. J. Vinig; Railroad Commissioners, W. T. Ray, A. M. Monroe, G. M. Cain.

At the election the ticket headed by A. H. Longino received 42,273 votes; that headed by R. K. Prewitt received 6,097 votes. The Legislature for 1900 consists of 45 Democrats in the Senate and 133 Democrats in the House. The Populists have 2 members in the House.

MISSOURI, a Western State, admitted to the Union Aug. 10, 1821; area, 69,415 square miles. The population, according to each decennial census since admission, was 140,455 in 1830; 383,702 in 1840; 682,044 in 1850; 1,182,012 in 1860; 1,721,295 in 1870; 2,168,380 in 1880; and 2,679,184 in 1890. Capital, Jefferson City.

Government.—The following were the State officers during the year: Governor, Lon V. Stephens; Lieutenant Governor, August H. Bolte; Secretary of State, Alexander A. Lesueur; Treasurer, Frank L. Pitts; Auditor, James M. Seibert; Adjutant General, M. Fred Bell; Attorney-General, E. C. Crow; Superintendent of Education, W. T. Carrington; Railroad and Warehouse Commissioners, T. J. Hennessey, J. Flory, W. E. McCully; Secretary State Board of Agriculture, John R. Rippey; Commissioner of Insurance, E. T. Orear—all Democrats, except Flory, Republican; Chief Justice of the Supreme Court, James B. Gantt; Associate Justices, Thomas A. Sherwood, Gavon D. Burgess, L. B. Valliant, W. C. Marshall, Theodore Brace, Democrats, and Walter M. Robinson, Republican; Clerk, J. R. Green, Democrat.

Finances.—The report of State finances given in the last issue of the Annual is the latest official statement. Figures under this heading are published biennially. The approximate amount required to meet ordinary expenses of the State government for 1899-1900 is \$4,666,446. The estimated receipts into the State interest fund in 1899-1900 are \$2,100,000; amount to be appropriated for interest on bonds and certificates of indebtedness, \$754,943.94; leaving \$1,345,056.06, which amount should be appropriated for the payment of bonds. The estimated receipts into the revenue fund for 1899 and 1900 are \$4,500,000 (predicated upon present laws), leaving a deficit for ordinary expenses of \$166,446.

Building and Loan Associations.—The Hon. H. L. Gray, State supervisor of the building and loan associations, in his biennial report says: "Reports have been received from 222 associations—141 from associations outside of St. Louis and 81 in St. Louis. The tables of resources and liabilities show a total of \$18,255,186.22; outside of St. Louis, \$9,816,400.92; in St. Louis, \$8,438,785.30." There are in the State 226 associations. There are 66 fewer reporting associations in 1898 than there were in 1896; 33 fewer than in 1897. The assets are \$8,097,768.58 less than 1896 and \$4,242,523.27 less than in 1897. Of the reporting associations, 27 are called nationals, because they do not confine their operations to the city of their domicile; their resources are \$5,242,663.21, leaving to the 195 locals \$13,012,523.01.

Department Stores.—"In connection with the 'trusts and monopolies,'" says Gov. Stephens in his message of Jan. 5 to the Legislature, "I desire to call your attention to the large department stores in St. Louis and Kansas City. It is told to me by many of the prominent citizens of St. Louis and Kansas City that they are detrimental to the best interests of the people of the State, affecting as they do the great majority; and as legislation is for the purpose of conferring the greatest good to the greatest number, you should correct these evils, if evils they are found to be. Arguments have been presented to me to show that these department stores in the cities of over 100,000 inhabitants are ruining the small dealers in the country towns as well as in the cities. They are building up a great combination of goods under one roof, and depriving the smaller dealers of their legitimate profit, and are forcing them out of business altogether."

Education.—In the session of 1899-1900 the State University enrolled at Columbia about 1,000 students, and at Rolla about 160. This means an increase of nearly 28 per cent. The enrollment in the cadet corps is 270—the largest muster in the history of the university. All departments of the university except that of military science

and tactics are open to women under the same conditions as to men. The last General Assembly appropriated for the university \$57,000 for the biennial period, \$33,000 for the erection of a dormitory for boys, and \$10,000 for ordinary repairs.

The condition of the public schools of Missouri can be accurately learned from the following data given by State Superintendent Carrington for the school year ending June 30: Enrollment—white, male, 323,096; female, 314,808; colored, male, 14,347; female, 15,767; grand total, 668,018; average daily attendance, 416,364; number of pupils that may be seated—white, 674,120; colored 33,013; number of volumes in the libraries, 168,720; value of libraries, \$121,723.72; number of teachers employed—male, 5,979; female, 7,803; white, 13,153; colored, 629; average salaries of teachers per month, \$45; number of schools in operation (corresponding to number of school-houses)—white, 9,842; colored, 484; number of schoolhouses built during 1898-'99, 298; estimated value of school property, \$17,020,880; assessed value of the taxable property, \$1,106,066,625.

Penal Institutions.—The Reform School for boys, at Boonville, is in a flourishing condition. More boys have been sent to it within the past two years than at any time in its history, owing to the more liberal laws governing it which were passed by the last Legislature. There are 430 boys in the school. The school is well equipped. An industrial shop building, a cottage for boys, and a hospital have been added, covering an appropriation of \$12,500, and 186 acres of good land adjoining the State's property have been purchased from an appropriation of \$7,000.

On Jan. 1, 1899, there was a balance in the State treasury to the credit of the earnings of the Penitentiary of \$56,555.45. The number of convicts is increasing rapidly. On Jan. 1 there were 2,327 inmates. An average of 1,362 daily during the past two years were employed by the contractors at the rate of 50 cents a day.

Charitable Institutions.—At the beginning of the year there were nearly 2,500 patients at Fulton, St. Joseph, and Nevada insane asylums. The enrollment at the School for the Deaf and Dumb for 1898-'99 is reported as 240 males and 164 females. At the School for the Blind the enrollment for 1898-'99 was 61 males and 64 females. The report of the Confederate Home shows that the average number of persons cared for is 147, including old soldiers, their wives, and their children under fourteen years of age.

Agriculture.—The Governor, in his message of Jan. 5, 1899, strongly recommended the establishment of an annual State agricultural fair, such as is held in many other States, and the Legislature passed an act authorizing a State fair. On May 19 the Legislature appropriated \$30,000 for the erection of an agricultural experiment station, with laboratory buildings, in Columbia.

Mining.—In 1898 large sums of money were invested by capitalists outside of the State in Missouri developed and undeveloped mineral lands. As a result of the extraordinary prices and demand for ores, an activity prevails in the mining districts never before experienced. The large increase of \$2,833,415 in the value of the product for the fiscal year ending June 30, 1898, over the year before, with the promise based upon the actual business of six months of the current year of a \$3,000,000 increase over the last year, shows a marvelous development. "This rapid growth," says Gov. Stephens, "and especially in the case of the zinc ore product, can not be classed

as spasmodic, for the reason that the new uses to which it has of late been applied cover so wide a field, and the territory in which it has thus far been developed is so limited (for Missouri now produces one sixth of the entire zinc output of the world), that good prices must prevail for some time. The importance of our mining industry can be better appreciated when we realize the extent of the claim made—"that the lead and zinc ore product for this year of the Jasper County alone will exceed in value the gold and silver production of the celebrated Cripple Creek region." During the year 1,038 shafts were operated in Missouri lead, zinc, and coal fields, in and about which 16,000 men were employed.

Railroads.—The number of companies operating railroads in Missouri June 30, 1898, was 58. Of these but ten declared dividends on their capital stock, and of the roads operated but two—the Hannibal and St. Joseph and Kansas City Suburban Belt—are wholly within Missouri. The following-named railroads were in the hands of receivers June 30, 1898: St. Clair, Madison and St. Louis Belt; St. Louis, Kansas City and Colorado; and St. Louis, Cape Girardeau and Fort Smith. The increase in the railroad mileage of Missouri for 1898 was greater than any year since 1892, the increase for that year being 240 miles. The larger proportion of the increase was in the extension of the Kansas City, Osceola and Southern and the lines controlled by the Kansas City, Pittsburg and Gulf Railroad Company. The total railroad mileage, June 30, 1898, was 8,495.72. The aggregate capital stock of companies operating in the State on that date was \$1,028,108,946. The total of taxes paid was \$817,799.07.

Industries.—The report of Thomas P. Rixey, Commissioner of Labor Statistics, for the year ending Nov. 5, 1899, shows for 40 leading industries the following statistics: Value of grounds, \$11,533,603; buildings, \$16,257,756; machinery, \$13,288,759; capital invested, \$70,322,334; goods manufactured, \$126,932,008; material and supplies used during 1898, \$77,512,396; amount of taxes paid, \$3,491,826.

Proposed Exposition.—The centennial anniversary of the purchase of the Louisiana territory, in 1803, by the United States from France will be celebrated in St. Louis during the years 1903 and 1904. The celebration was decided upon by a convention, held Jan. 19, of delegates representing the States and Territories included within the original purchase. It was also decided that the observance should be in the form of a great international exposition, in which the United States Government, the States and Territories, and foreign countries should be invited to participate.

Cyclone.—On April 27, 1899, north and northeast Missouri were visited by a devastating cyclone; portions of the cities of Kirksville and Newtown were laid waste, causing an appalling destruction of life and property. About 50 persons were killed, and hundreds were injured and possibly maimed for life. The homes of more than 500 families were totally destroyed by the elements. Gov. Stephens made an appeal for aid in behalf of the sufferers, and the response was hearty and prompt from all parts of the State.

Lawlessness.—Under the directions of the father of the girl whom he had assaulted, and close to the scene of his crime, Frank Embree, a negro, was flayed and then lynched at Fayette, on July 22, by a mob. The lynching occurred at the hour that had been set for the prisoner's trial. The mob wrested Embree from a squad of

deputy sheriffs after a spirited struggle. Embree is the third negro that has been hanged for criminal assault on white women in Howard County.

Political.—The Legislature consists of 9 Republicans and 25 Democrats in the Senate, and 58 Republicans, 80 Democrats, and 2 Populists in the House. The House and Senate on Jan. 17 voted separately for United States Senator to succeed Francis M. Cockrell for the term of six years beginning March 4, 1899, the vote being: Senate—R. C. Kerens (Republican) 9, Cockrell (Democrat) 25; House—Kerens 52, Cockrell 76. The election took place in joint session on the following day, resulting in the election of Mr. Cockrell for the fifth term, the vote being Kerens, 61; Cockrell, 103.

MONTANA, a Western State, admitted to the Union Nov. 8, 1889; area, 146,080 square miles. The population, according to the census of 1890, was 132,159. Capital, Helena.

Government.—The following were the State officers in 1899: Governor, Robert B. Smith; Lieutenant Governor, A. E. Spriggs; Secretary of State, T. S. Hogan; Treasurer, T. E. Collins; Auditor, T. W. Poindexter, Jr.; Attorney-General, C. B. Nolan; Superintendent of Education, E. A. Carleton—all elected on a fusion ticket of Democrats and Populists; Adjutant General, C. F. English; Commissioner of Agriculture, J. H. Calderhead; Land Agent, Henry Neill; Land Register, H. D. Moore; Mine Inspector, John Byrne; President of the State Board of Sheep Commissioners, T. C. Power; Examiner, J. G. Moroney; Architect, C. S. Haire; Chief Justice of the Supreme Court, Theodore M. Brantley, Republican; Associate Justices, W. H. Hunt, Republican, and W. T. Pigott, Democrat; Clerk, Henry G. Rickerts, Democrat.

Finances.—The receipts of the treasury from all sources in the year ending Nov. 30 amounted to \$1,081,036.65. In the year \$558,727.27 in warrants were drawn. On Dec. 1, 1898, \$337,649.21 in general fund warrants were outstanding, and Dec. 1, 1899, there were \$376,042. The interest paid on general fund warrants amounted to about \$13,000, but by reason of the reduction in the interest rate by the Legislature the interest is expected to be much less the coming year. The cash on hand in the treasury on Nov. 30 was \$637,416.62.

Valuations.—The value placed upon property for assessment in 1898, exclusive of railroads, was \$119,960,108. The value for 1899, as given by county assessors, was \$125,829,181. The railroads were valued at \$14,992,689 in 1899; in 1898, at \$13,793,581. The live-stock valuation was increased \$1,474,741 in 1899. There was a general protest among those interested against the values placed by the State Board of Equalization on cattle and sheep for purposes of taxation. The total valuation of cattle is \$12,057,087; horses, \$3,289,717; sheep, \$8,302,944, making the total assessment \$23,649,748. The assessors' reports show 3,186,742 head of sheep in the State, which have been assessed at an average of \$2.604. The average assessment of beef cattle was \$37.37; of yearlings, two year olds and three year olds \$21.83, and of cows \$25.71. The assessors this year found 1,173 thoroughbred horses, 133,642 range horses, and 59,672 work horses. The average assessment of thoroughbred horses was \$95.76; range horses, \$11.28; and work horses, \$27.99.

The attempt of a county board to tax the Associated Press franchises of newspapers was not sustained, the county attorney deciding that they were not franchises in the strict sense of the

word, but contracts between the agency and the papers.

Education.—The estimates for the higher institutions of learning of the State for the biennial period were: Normal school, \$29,910; university, \$42,180; College of Agriculture and experiment station, \$15,910, in addition to the Government appropriation; School of Mines, \$26,300.

It is expected that the School of Mines will be ready for opening in September, 1900. The dedication exercises of the State University, at Missoula, took place Feb. 18.

A table of the libraries of the State gives the total number of volumes as 157,000. It includes not only public and free libraries and those in State institutions, but those of school districts and of private institutions.

The school children of the State have chosen the pine by vote as the State tree. Last Arbor Day they planted 375 trees.

The Supreme Court gave a decision in October which threatens to close the schools for a large part of the time before the next session of the Legislature in some parts of the State. The law, passed some years ago and amended in 1897, providing for the voting of special school levies was declared inoperative, because of vagueness and ambiguity in its wording. The law came before the courts on a suit by the Great Northern Railroad, which refused payment of a tax of \$1,800 levied after vote according to the law.

Charities and Corrections.—The number of inmates at the State Soldiers' Home, Dec. 1, was 51, the same number as on Dec. 1, 1898. In the year 19 were admitted, 10 died, and 9 were discharged. The average age is between 62 and 63. The receipts were \$11,308.30, of which \$7,200 was the State appropriation, \$3,358 came from the Government, and the remainder from pensions retained. The total expenses were \$9,894.24.

The deaf-mute asylum cost the State for the year \$12,683.02.

The report of the Commissioners for the Insane shows that, while there were 457 patients in the asylum on Dec. 1, 1898, there were 427 at the same date in 1899, of whom 375 were men. The whole number treated during the year was 602. The total cost of maintenance was \$114,140.50 for the year; \$2,250 was received for those not indigent.

In the State Prison there were 328 convicts on Dec. 1; in the year 148 had been received, 183 released, and 6 had died. The cost of maintenance was \$52,806.40. The contractors reported great improvement in the conduct of the prisoners this year. They have organized a full military band among the inmates.

Products.—The sheep industry is reported to have yielded about \$4,500,000 during the year ending Nov. 30. Of this amount about \$3,000,000 came from the sale of wool. The number of sheep and lambs slaughtered or shipped out of the State since March 1 was 368,421; the number of pounds of wool sheared was 23,290,639.

The latest figures at hand on the mineral production are for 1898, published in May. They show that the total value of mineral products of the State that year was \$51,319,067.15. Of this amount the following sums were contributed by the different metals: Gold, valued at \$5,247,912.91; silver, \$19,159,842; copper, 216,979,354 fine pounds, valued at \$26,102,616.29. The value of the lead taken out of the mines last year was \$809,035.78.

The Mine Inspector says of 1899: "A comparison of the mining industry during the year with previous years exhibits a marked improvement. More mines are in operation, a greater number

of men employed, with better methods and results in the mining, smelting, milling, cyaniding, and the combination of these and other processes which are being applied to the recovery of values contained in the ores of this State. Several old mines, after a long period of inactivity, have resumed operations, and are yielding handsome profits from a class of ores that were worthless to their early operators."

Lands.—In the year 218,058 acres were selected for the State. This nearly completes the location of lands to which Montana is entitled. Of the several grants made by Congress, all have now been filled, with the exception of the public buildings grant and the Agricultural College income grant, which have approximately 45,000 and 3,500 acres respectively to be selected.

To meet the unusual demand for grazing lands the Land Agent, acting under instructions of the board, selected 115,000 acres of indemnity school land in lieu of the school lands upon the Fort Peck Indian reservation, also 21,000 acres of lieu lands for school lands claimed by homesteaders and miners.

The Northern Pacific, having facilities for ascertaining the exact location of valuable bodies of timber on unsurveyed land, forestalls the State in regard to many desired locations and places forest-reserve scrip upon them. In addition, speculators have secured large amounts of California forest-reserve scrip, and are indefatigable in their searching and scripping the unsurveyed domain.

The report of the Land Register shows a large increase in business, the receipts for the year ending Nov. 30 having been \$200,195.20, against \$126,883.31 the preceding year. Of the sum received, \$100,415.80 was for leases, \$41,666.23 for timber sales, and \$27,098.78 for land sales of the year, the remainder coming from payments on sales and rental of preceding years.

Insurance.—The fire companies doing business in the State in 1898 wrote \$37,396,391.69 of insurance, \$739,954.29 was received in gross premiums, \$255,255.31 losses paid, and \$246,783.14 in losses incurred.

The regular life insurance companies collected in premiums \$703,262, and incurred losses of \$154,115, and had at the end of the year \$20,192,790 insurance in force.

The mutual benefit companies received \$30,526 and disbursed \$24,000.

The New Capitol.—The corner stone of the new Capitol was laid July 4. Joseph K. Toole, first Governor of the State, was the orator of the day. He deprecated the inscription on the great seal of the State, "Oro y Plata" (gold and silver), and suggested as a better motto, "No tyrannical sentiment can intimidate, no gilded bribes seduce."

Legislative Session.—The Legislature was in session from Jan. 2 to March 2. T. P. Cullen was President *pro tempore* of the Senate and Henry C. Stiff was Speaker of the House.

There were in the Senate 5 Republicans, 18 Democrats, and 1 Populist; in the House, 10 Republicans, 56 Democrats, and 4 Silver Republicans, but 1 Democratic Senator was later unseated in favor of a Republican.

The election of a successor to United States Senator Lee Mantle devolved upon this Legislature. The leading candidates were W. A. Clark and W. G. Conrad, both Democrats. Other candidates who received support were J. K. Toole, T. C. Marshall, J. M. Fox, F. M. Malone, E. D. Matts, C. S. Hartman, Lee Mantle, H. L. Frank, C. W. Hoffman, Martin Maginnis, and Messrs.

Sanders, Grubb, Powers, Goddard, Henry, C. R. Leonard, Hedges, Carney, and L. A. Luce.

On Jan. 9 a resolution was passed providing for a joint committee to investigate charges of bribery in connection with the senatorial contest against members of the Legislature and lobbyists. The next day the committee reported to a joint session that evidence had been found upon which to base an indictment before a grand jury, and asked that the matter be referred to the district attorney with that purpose. State Senator Whiteside made a speech in which he said that, in order to get a case against the corruptionists, he had taken \$5,000 from John B. Wellcome, acting for W. A. Clark, with the understanding that he was to get more if he should negotiate successfully for the purchase of other legislators, and that he received \$25,000 for three others—Messrs. Myers, Clark, and Garr—who also went into the scheme for the purpose of exposing the attempt at bribery. This money (\$30,000) was turned over to the committee, and from them to the joint session, and the three members made statements concerning it. The Legislature accepted the report, resolved to ask for a grand jury investigation, and continued the committee. The money was intrusted to the State Treasurer. A grand jury was called Jan. 11, and on Jan. 26 reported that 44 witnesses had been examined, and that, "while there has been some evidence which tends to show that money has been used in connection with the election of a United States Senator, it has been contradicted and explained in such a way that all the evidence introduced before us, taken together, would not, in our judgment, warrant a conviction by a trial jury."

A contest for the seat held by Mr. Whiteside was decided against him that day, and it was given to his opponent, a Republican, Mr. Geiger, by the votes of all the Republicans and 9 Democrats.

On the seventeenth ballot (Jan. 28) Mr. Clark was elected, several Republicans voting for him. There were 54 votes for Clark, 27 for Conrad, 4 for Marshall, and 4 scattering.

In the summer disbarment proceedings were instituted against John B. Wellcome for alleged bribery in connection with the contest; the Supreme Court decided that he must plead to the charge, and Nov. 6 was fixed as the time for beginning the hearing. The principal witnesses were those who gave testimony before the investigating committee of the Legislature and the grand jury; Mr. Wellcome did not appear in person or make a direct denial, but his counsel made answer under oath upon information and belief. The decision of the court was against him, and he was disbarred.

Several of the State officers signed a protest against the seating of Mr. Clark, which was sent to the United States Senate, and an investigation was begun in January, 1900, before the Senate Committee on Privileges and Elections.

A bill that was passed over the Governor's veto referred to the disposal or mortgaging of the property of mining corporations. In his message the Governor said the bill was an attempt to reverse the decision of the Supreme Court, which declared invalid the sale of the property of the Boston and Montana Copper and Silver Mining Company to a New York corporation, compelling its stockholders to accept stock in that corporation instead of that which they held in the home company; that the bill was in the interest of a great copper trust about to be formed; and that it allows private property to be taken for pri-

vate use by the provision that if any stockholder dissents from the action of the majority in combining with other corporation or trading for the stock of another corporation a commission is appointed to appraise the value of his stock, which is his individual property, and sell it out at public auction or to the grantee of the corporation.

Foreign surety companies may do business in the State under certain restrictions, and they may be accepted on bonds given for the performance of any duty. Fire companies may insure property in the State only through resident agents, and companies authorized to do business in the State must not reinsure risks in unauthorized companies.

Acts were passed permitting the Arid Land Grant Commission to construct water systems for irrigation and other purposes; allowing the exercise of eminent domain for aqueducts supplying mills, mines, and smelters with water; fixing a standard for measuring water rights; substituting the cubic for the miner's inch; and providing that a commissioner may be appointed to distribute water from streams to those entitled to it by decrees of court.

The tax levy for stock inspection was fixed at $1\frac{1}{2}$ mill on the assessed valuation of stock (formerly the law required only that it should not exceed that amount), and horses before removal from the State must be inspected by a sheriff or stock inspector.

The privileges of the State Soldiers' Home were extended to soldiers and sailors of the Mexican and Spanish wars.

Provision was made for division of counties into road districts by county commissioners. The act of the preceding Legislature abolishing the office of road supervisor was repealed, and provision was made for the election of such officers. This act the Attorney-General held to be unconstitutional, as it interfered with the rights of county surveyors, depriving them of their duties and their fees; but the Supreme Court declared it valid.

The creation of a State board of horticulture was provided for. The State is to be divided into five districts, each to be represented by a member of the board, appointed by the Governor, and these five are to select a sixth. None of them may be interested directly or indirectly in the fruit or tree business. They are to inspect nursery stock and destroy any found to be infested with dangerous insects or otherwise diseased. The term of office is four years.

The offices of deputies to the Treasurer, the Secretary of State, the Auditor, and the Land Register were created.

The office of Supreme Court Reporter was abolished, and justices of the court are to report their own decisions and receive each \$1,500 additional salary.

Other session acts were:

Providing for liens on lumber or other timber in favor of those who work upon it and the owner of the land on which the timber is cut.

Providing that a bishop, priest, or elder of a church or society may be a sole corporation and hold property in trust.

Prescribing 4 per cent. interest for State Treasurer's warrants not paid for lack of funds, instead of 6 per cent., and for county warrants 6 per cent. instead of 7.

Reducing the legal rate of interest from 10 to 8 per cent.

Fixing the bounty on wolves at \$5, that on coyotes at \$2, and on wolf puppies at \$2.

Repealing the law prohibiting selling at retail on credit.

Exempting graduates of the State Normal School from examination before teaching, and providing for granting them life certificates after two years' experience.

Permitting the maintenance of kindergartens in connection with district schools, and of county high schools after a vote in favor.

Providing that reports of State officers may not be printed oftener than once in two years, except by order of the State Board of Examiners.

Prohibiting insolvent banks from accepting deposits, and regulating the increase or diminution of the capital stock of banks and trust companies; also regulating their dissolution.

Amending the law regulating powers of building and loan associations.

Changing the method of sale or lease of State lands.

Requiring contracts for sale of personal property to be recorded with the county clerk in cases where the title does not pass till the whole price is paid.

Changing the boundary between Deer Lodge and Lewis and Clarke Counties.

Annexing part of Meagher County to Cascade.

Appropriating \$11,000 for completing the Orphans' Home at Twin Bridges.

Providing for a 2½-mill State levy.

Appropriating \$577,000 to State institutions.

The Governor vetoed bills legalizing 20-round glove contests; amending the antigambling act so as practically to license gambling, and making it a misdemeanor instead of a felony; depriving an applicant for a medical certificate who has failed to be certified by the Board of Medical Examiners of the right to appeal to a jury; permitting doctors to compound drugs without having passed an examination in pharmacy; and repealing the license on State banks.

MORAVIANS. The following are the statistics of the Moravian Church in America to Dec. 31, 1898, as officially published in March, 1899:

Northern Province: Number of communicants, 11,775; of noncommunicant members, 1,155; of children, 4,802; total membership, 17,822; membership of Sunday schools, 1,237 officers and teachers and 10,248 pupils.

Southern Province: Number of communicants, 2,955; of noncommunicant members, 234; of children, 1,553; total membership, 4,742; membership of Sunday schools, 346 officers and teachers and 3,708 pupils.

Total for the American Province: 14,730 communicants, 1,389 noncommunicant members, and 6,445 children—in all, 22,564 members—1,583 officers and teachers, and 13,956 pupils in Sunday schools. The numbers show increase during the year of 177 communicants, 162 children, 219 in the total membership, 17 officers and teachers, and 122 pupils in Sunday schools, and a decrease of 120 noncommunicant members. The returns from the Northern Province represent 89 churches, classified as in four districts, of which the first district embraces churches in New York and Pennsylvania; the second district, churches in New Jersey and Pennsylvania; the third district, churches in Ohio, Iowa, Indiana, Indian Territory, Missouri, and Illinois; and the fourth district, churches in Wisconsin, Minnesota, Michigan, and North Dakota; and the Alberta (Canada) district, comprising three churches. Detailed statistics are given of the contributions and expenditures of the Northern Province. The whole amount contributed during the year for Church support was \$120,128, or \$13,612 more than in

1897. The contributions for Church enterprises were: For retired ministers, \$1,295; for the Bohemian Mission, \$1,277; for foreign missions, \$7,987; for the Alaska Mission, \$3,026; for home missions, \$7,189; for the Theological Seminary, \$4,476; for all other Moravian causes, \$1,655; for general Christian objects, \$1,220. The whole amount of contributions of this class (\$28,105) was \$4,731 more than in 1897. The average salary of pastors is \$502.

A summary of the gifts of the American Moravian Church, North, for foreign mission causes for 1899 gives the whole amount as \$28,690, showing an average contribution per communicant of \$2.44.

The General Synod met at Berthelsdorf, Saxony, in May. A number of important constitutional changes were adopted, mainly bearing upon the status and relations of the several provinces and missions. The West Indian missions were organized into two provinces, to be called the Eastern West Indian Province and the Jamaica Province, each of which is to be governed by a provincial synod and a provincial elders' conference. These provinces will be aided by the General Synod with yearly grants of £700 each, to be increased to £1,000 if necessary, for the next ten years, while the Mission Board will bear the entire cost of the Theological Seminary for the two West India provinces, the Mosquito Coast, Demerara, and possibly other fields, and the training schools will be supported by the general missionary treasury. The Mission Board will continue to bear the expenses, as hitherto, for foreign brethren now in service, and one half the expenses connected with outfit, pension, education of children, etc., of foreign missionaries appointed after December, 1899. Sanction was given to an agreement made in 1897 between the Mission Board, on the one hand, and the American Provincial Elders' Conference in the North and the Society for Propagating the Gospel on the other hand in reference to the administration of affairs in the mission in Alaska; and the agreement was interpreted to mean that the American congregations and the Society for Propagating the Gospel would provide the means to meet the entire cost of the current expense of the mission, while the general missionary treasury would bear the expenses involved in the outfit of the missionaries called to Alaska, their sustentation during furlough at home, the education of their children, and their pensions. The Synod decided to transfer the mission in Greenland to the Danish Lutheran Church. The work of evangelization in Bohemia and Moravia was assumed as the charge of all the provinces, to be carried on with the intention of re-establishing the Church in the land of its origin, the final decision in matters of administration resting in the hands of the Directing Board of the Unity, with seat at Berthelsdorf. In the management of this work the Directing Board will be assisted by the Bohemian-Moravian Committee, which committee will consist of two sections—namely, the executive section and the circle of nonresident members. It was decided that in each of the larger mission provinces there shall be a bishop; that missionaries called to those provinces shall, as a rule, go out unordained, and shall be ordained as deacons only after serving one or two years; that, as a rule, five years shall elapse between the missionary's ordination as deacon and as presbyter, with exceptions in case of a missionary receiving a call as superintendent or warden of a province or as head of a regular station or as a member of a helpers' conference, when he may be ordained a presbyter at once. In

defining its financial policy as to missions the Synod declared that "a mission is supported by the home province in the early days of its existence either out of the general mission exchequer or out of the proceeds of businesses existing for the purpose. The aim of mission work, however, is to create in the mission fields self-supporting, independent churches, which shall look for no help from abroad, but raise all the money that is necessary for church and school and for the salaries of their ministers, according to the ability of their members." The minute further defined the relations of the missions, etc., in the different steps between entire dependence and complete self-support. The Mission Board was authorized, if means allow, to found and carry on in the West Indies one theological seminary for the West India provinces, Mosquito Coast, and Demerara, and one in Surinam; to make arrangements for the training of native ministers in the Himalayan Province; and to provide for the further education of native ministers in connection with the training school at Guadendal. The Mission Board was further commissioned to lay before the members and friends of the Church a complete and unreserved and detailed statement of the condition of the missionary operations as a whole. A declaration was made in the adoption of these rules that the office of bishop as such carries with it no connection with Church government.

The Rev. Edward C. Greisler, president of its Conference, was elected bishop of the Eastern Province of the West Indies.

A special grant of £1,000 was made to Antigua for the payment of its debt and of £500 for repairs, and a loan of £1,500 was made to Kingston, Jamaica.

In a formal statement the Synod again declared "its adherence to the fundamental doctrines of the Church as given in the second chapter of the general synodical results of 1889. The Synod holds that all that is essential is expressed there, and that nothing therein should be changed either by additions or by omissions. At the same time the Synod declares that it accepts all Holy Scripture, Old and New Testament, which is the source of these doctrines, as the word of God, given by God as the rule of our faith and life, and that we are determined to adhere thereto with all earnestness and faithfulness." The declaration further urged fidelity to these principles, and continued: "As to the request of the Synod of the Northern American Province, to the effect that the staff of every educational establishment in the Unity shall be called upon plainly to declare their adherence to the fundamental doctrines of the Brethren's Church, the Synod declares such profession of faith to be the concern of the individual provinces. At the same time all intrusted with the management of our schools, and especially of our theological colleges, are admonished and requested conscientiously to do all in their power to bring up our young people in the spirit, the doctrines, and the principles of our Church."

The reports of the committee in charge of the work of evangelization in Bohemia and Moravia recited the course of events during the past ten years, showing slow progress. Stated services were held at 20 places, with a membership of 597. The accounts of the decade showed a deficit

of \$1,250. The contributions from America had averaged \$1,500 a year, those from the German Province \$3,821, and those from the British Province \$680. The revolt in Bohemia against Roman Catholic ecclesiasticism was interpreted as a call to prosecute the evangelistic work.

The committee in charge of the leper hospital near Jerusalem reported that the number of inmates had risen from 20 to 37. The institution was under the charge of Charles and Anna Schubert as managers, and the actual attendance on the patients was in the hands of three deaconesses (in future to be four), who belonged to the Deaconess Institute of the Brethren's Church at Niesky. Two of the number had adopted the work of the home as their life work. Among the improvements in the property of the institution was a steam disinfecting apparatus, the gift of the Emperor of Germany.

The New Constitution.—In the revised constitution of the Church as adopted by the General Synod the general divisions of the Unity are classified as: (a) The four self-supporting and independent divisions—the Brethren's Unity in Germany, the British Province, the American Province, North, and the American Province, South; (b) the 15 mission fields; and (c) the Brethren's Church in Austria. The General Synod is the legislative body of the whole Church, and consists of members *ex officio* (certain missionary and provincial officers); elected members, including nine delegates from the German and British districts respectively and nine from the two American districts, which for this purpose are counted as one; one delegate from each mission field entitled to such representation; and not more than five missionaries called by the Mission Board, with also advisory members. These members of the General Synod, while considering the welfare of their own provinces and being generally guided by their directions, are expected to be primarily solicitous for the good of the whole Church. The General Synod relegates to the provincial synods the right to elect their bishops, while it reserves to itself the election of bishops for the work of missions among the heathen. The General Synod will meet every ten years, but special convocations may be ordered by the Governing Board. The Governing Board or Unity's Board, which takes the place and the general power of the former Unity's Elders' Conference, consists of the Mission Board and the directing boards of the four independent provinces. Its organization and functions are so shaped as to give the provincial boards more freedom in their own administration than they had before, while it remains as the central body for reference and appeal and for ultimate decision in matters that may touch the unity as a whole; and it will act when necessary in the intervals between meetings of the General Synod, holding meetings at which each corporation shall be represented by one delegate (the two American provinces having one delegate and one vote each), except that the Mission Board is given two delegates. The Mission Board will have its seat at Berthelsdorf, near the General Synod. Provision is made in the constitution of all the committees and of the Mission Board for the even representation upon them of all the three nationalities—German, British, and American—of the Church.

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NATIONAL ACADEMY OF SCIENCES.

The officers of the Academy in 1899 were: President, Wolcott Gibbs; Vice-President, Asaph Hall; Foreign Secretary, Alexander Agassiz; Home Secretary, Ira Remsen, Johns Hopkins University, Baltimore, Md.; Treasurer, Charles D. Walcott.

Two meetings were held in 1899. The first or stated meeting was held in Washington, April 18-20. On that occasion the following papers were read: On the Diamond and Gold Mines of South Africa and On the Tanner Deep-sea Tow Net, by Alexander Agassiz; also On the Acalephs of the East Coast of the United States, by Alexander Agassiz and A. G. Mayer; On the Development by Selection of Supernumerary Mammary in Sheep and On Kites with Radial Wings, by Alexander G. Bell; Ophiura Brevispina, by William K. Brooks and Caswell Grave; exhibition of specimens of *Nautilus pompilius*, by William K. Brooks and L. E. Griffin; The Shadow of a Planet, by Asaph Hall; Remarks on the Work of the Nautical Almanac Office during the Years 1877-'98 in the Field of Theoretical Astronomy, by Simon Newcomb; and Progress in Surveying and Protection of the United States Forest Reserves, by Charles D. Walcott.

The following papers were read by scientists not members of the Academy: On the Limestones of Fiji, by E. C. Andrews (communicated by Alexander Agassiz); On the Bololo of Fiji and Samoa, by William McM. Woodworth (communicated by Alexander Agassiz); The Work of the Division of Forestry, Department of Agriculture, by Gifford Pinchot; and The Resulting Differences between the Astronomic and Geodetic Latitudes and Longitudes in the Triangulation along the Thirty-ninth Parallel, by Henry S. Pritchett, both of whom were introduced by Charles D. Walcott.

The meetings were held in the hall of Columbian University. The public business included the fifth conferring of the Watson gold medal, the recipient of which was David Gill, astronomer in the observatory at the Cape of Good Hope for the British Government, for his work in perfecting the application of the heliometer to astronomical measurements; also the conferring of the Draper medal on James A. Keeler, of the Lick Observatory, for his researches in spectroscopic astronomy. The new members elected were Charles E. Beecher, of the department of paleontology in Yale University, New Haven, Conn.; George C. Comstock, director of Washburn Observatory, University of Wisconsin, Madison, Wis.; Theodore W. Richards, of the chemical department of Harvard University, Cambridge, Mass.; Edgar F. Smith, of the chemical department of the University of Pennsylvania, Philadelphia, Pa.; and Edmund B. Wilson, of the biological department of Columbia University, New York city. The following six members were elected to the council: John S. Billings, Henry P. Bowditch, George J. Brush, Arnold Hague, Samuel P. Langley, and Simon Newcomb. These gentlemen, together with the officers *ex officio* of the Academy, constitute the council. A popular lecture On the Photography of Sound Waves and a Description of a New Process of Color Photography was presented by Prof. Robert W. Wood, of the University of Wisconsin, Madison, Wis.

The scientific session was held in Columbia University, New York city, Nov. 14 and 15, 1899, when the following papers were read: The Hydrogen Vacua of Dewar, by George F. Barker; The Definition of Continuity, Topical Geometry in General, and The Map-coloring Problem, by Charles S. Peirce; Recent Results of the Henry Draper Memorial, by Edward C. Pickering; The Electro-chemical Equivalents of Copper and Silver, by Theodore W. Richards; Variations in Normal Color Vision, by Ogden N. Rood; and The Statical Properties of the Atmosphere and A Direct Proof of the Effect on the Eulerian Cycle of an Inequality in the Equatorial Motions of Inertia of the Earth, by Robert S. Woodward; also, by invitation, The Time of Perception as a Measure of Difference in Intensity; Relations of Time and Space in Vision, by J. McKeen Cattell, of Columbia University.

A biographical Memoir of William A. Rogers as a Physicist, by Edward W. Morley, was read. At the business session Henry P. Bowditch presented the report of the delegates who represented the Academy at the congress held in Wiesbaden during the summer to consider the establishment of an international scientific association. A committee of five was appointed to select the name of the scientist who, within the past five years, has made a discovery in physics or astronomy or in the application of science which shall be adjudged most valuable to the human race, and to present the name of that person as a candidate for the Barnard medal at the next meeting.

NEBRASKA, a Western State, admitted to the Union March 1, 1867; area, 77,510 square miles. The population, according to each decennial census since admission, was 122,993 in 1870; 452,402 in 1880; and 1,058,910 in 1890. Capital, Lincoln.

Government.—The following were the State officers in 1899: Governor, William A. Poynter; Lieutenant Governor, E. A. Gilbert; Secretary of State, W. F. Porter; Treasurer, J. B. Meserve; Auditor, John F. Cornell; Attorney-General, C. J. Smythe; Adjutant General, P. H. Barry; Superintendent of Education, W. R. Jackson, all Populists except E. A. Gilbert, Silver Republican, and C. J. Smythe, Democrat; Land Commissioner, J. V. Wolfe; Chief Justice of the Supreme Court, T. O. C. Harrison, Republican; Associate Justices, T. L. Norval, Republican, and J. J. Sullivan, Fusion; Clerk, D. A. Campbell, Republican.

Finances.—The receipts for the year ending Nov. 30 were \$2,650,324.78; the expenditures, \$2,660,737.87. The balance at the beginning of the year was \$624,523.43; at the end, \$614,110.34.

Of the receipts, \$996,378.25 were for the general fund, the main part of which, \$856,638.86, came from taxes. The disbursements from this fund were \$968,819.33; of this amount, \$894,033.63 were for general fund warrants and the remainder for interest.

The permanent school fund received from sales of lands \$243,059.36.

The total appropriations of the Legislature for 1899 were \$2,591,373.

The assessed valuation for 1899 was \$169,105,905. The general fund levy was \$845,529, and the total levy \$1,286,792. The floating debt now consists almost solely of general fund warrants outstanding. Nov. 30, 1898, there were general

fund warrants outstanding amounting to \$1,571,686.61. This with a bonded debt amounting to \$153,267.35 made a total of \$1,724,953.96. The bonded debt is now \$55,000 and the outstanding warrants amount to \$1,774,588.92.

Education.—The school population in 1898 was 366,069; the enrollment, 273,919; the average daily attendance, 173,930; number of school-houses, 6,676; average number of days of school in all districts, 131; number of teachers in public schools, 9,608; total wages, \$2,359,807. The total expenditures, including a balance on hand at the close of the year of \$673,341, were \$4,385,358.

The number of students in the State University in December, 1899, was 1,560. There were 622 new students admitted in the autumn.

The enrollment at the State Normal School for the year ending June, 1898, was 699.

There were 110 at the Institute for the Blind. The School for the Deaf had 165 pupils.

Charities and Corrections.—The State Industrial School for Boys, at Kearney, in 1898, had 150 inmates. In all 1,202 boys have been in the school since it was established in 1881. The Girls' Industrial School was established at Geneva in 1893.

The Institution for Feeble-minded Youth, at Beatrice, had 220 inmates, and applications for 250 more who could not be accommodated.

A fire at the State Penitentiary, Dec. 15, consumed the manufactures building and caused a loss amounting to between \$75,000 and \$100,000. The principal part of the loss falls upon the State, which owned the building and machine shop, together valued at \$50,000 and uninsured.

Products.—The annual crop review of the Omaha Bee, compiled from reports of correspondents in every part of the State, and published in October, indicates that the corn crop of 1899 exceeds the record of 1897, the best previous year, by 142,17,240 bushels and reaches 244,125,093 bushels. The average yield per acre is 34.5 bushels, and the crop is not only the largest, but, taken as a whole, is of as good quality as any ever raised in the State. The total of the wheat yield is below that of the last two previous years. This is due to the damage to the plant during the winter in the winter wheat district. In the spring wheat region in the northern part of the State the crop is fully up to the average in quality and quantity. The total yield is 29,333,914 bushels, an average of 11.4 bushels per acre. The oat crop amounts to 53,575,097 bushels, an average yield of 33.1. This is about an average with other years.

Mortgages.—The report of the mortgages given and canceled in the first half of 1898 shows the number of farm mortgages filed to be 6,411, the amount being \$7,003,266.46. The number satisfied was 8,758, amounting to \$8,197,147.84. The number of town and city mortgages filed is 2,593, amounting to \$1,908,343.60. The number satisfied is 3,215, amounting to \$3,623,290.64.

The number of chattel mortgages filed is 38,839, amounting to \$21,518,388.48. The number satisfied is 20,558, amounting to \$9,019,358.87. The number of foreclosures of farms is 502, and of city property 432. Lancaster County is not included in the report of chattel mortgages.

Banks.—The semi-annual report of the State banking department in July shows a total of resources and liabilities of \$30,453,723; with loans and discounts, \$17,898,386; capital stock paid in, \$7,232,485; and general deposits, \$21,025,766. This was believed to be the best showing so far made by the banks of the State. The whole number of banks covered by the statement is 398,

including State, savings, and private banks. The average reserve is 45 per cent. In three months the legal reserve had increased \$2,230,506; the cash reserve, \$64,170; the capital and surplus, \$190,740; the deposits, \$1,772,716; the total resources, \$1,658,125.

Building Associations.—There were 60 of these doing business in the State June 30, 8 having gone out of operation since the beginning of the year, while 4 new ones had been formed. Their assets amounted to \$3,331,042, of which \$2,358,773 was in first mortgage loans, besides \$35,652 that were in process of foreclosure. The loans made amounted to \$539,149.

Insurance.—From the statement of the insurance department, published in April, covering 1898, it appears that the joint fire insurance companies of other States and nations wrote risks amounting to \$96,326,346 and received \$1,250,079 in premiums. The losses paid amounted to \$552,704, and the losses incurred to \$569,760. This shows a great increase in the amount of business. The Nebraska farmers' mutual companies wrote risks amounting to \$18,592,249, and received an income of \$176,409. The expenses of these companies amounted to \$77,456. The losses paid were \$79,349, and the policies in force at the end of the year amounted to \$56,537,124. This does not include the Nebraska farmers' mutual companies organized under the law of 1873. Companies organized under that law wrote risks amounting to \$7,972,723, and received \$134,693 in premiums. Their expenses amounted to \$54,454, and the losses paid were \$33,827. The losses incurred amounted to \$31,244. In addition there were many city and village insurance companies that paid \$32,654 for losses and wrote risks amounting to \$6,852,566 and received an income of \$86,151. Agents' commissions and expenses amounted to \$80,498.

Nebraska joint stock companies wrote risks amounting to \$11,106,593, received \$157,947 in premiums, and paid out \$63,752 for losses. The expenses of these companies amounted to \$81,375.

The business of these mutual companies also shows a large increase.

The Exposition.—No full account of the affairs of the Omaha Exposition has come to hand, but reports at the close appear to indicate that it was not financially successful. An Omaha letter of Nov. 1 says: "It would be impossible to state the exact total receipts. The paid stock was \$89,300; sale of buildings and material about \$50,000; water plant, \$18,000; concessions, about \$70,000; admissions, something over \$190,000; making a total of something less than \$420,000 as received by the management. At the opening of the gates the corporation was in debt something like \$60,000. At the time of the reorganization, a month later, the new management, by hard work, was able to secure loans to the amount of about \$40,000 within ten days after taking control. The gates closed with a debt in excess of \$130,000, not counting the \$89,300 capital stock paid up."

Legislative Session.—The session of the Legislature lasted from Jan. 3 to March 31. A. R. Talbot was president *pro tempore* of the Senate, and Paul F. Clark Speaker of the House.

There were 6 Democratic members of the Senate, 10 of the House; 18 Republicans in the Senate and 55 in the House; 9 Populists in the Senate and 35 in the House.

The term of United States Senator William V. Allen having expired, a successor was elected, but only after a long contest. Mr. Allen was the candidate of the fusionists, Monroe L. Hay-

ward was the leading candidate of the Republican members, but there were so many others that no choice was made till March 7, after Mr. Hayward had been made the caucus candidate. He was elected by a vote of 74 against 58 for Mr. Allen. Among the candidates were D. E. Thompson, J. L. Webster, G. M. Lambertson, and Messrs. Field, Reese, Hinshaw, Hainer, Weston, Foss, Van Duzen, Adams, Cornish, Talbot, and J. S. Morton. Mr. Hayward died before taking his seat, and the Governor appointed William V. Allen.

An important amendment to the law for the registration of voters was adopted, making it the duty of the registrars to provide an additional column in the registry list for the name of the party with which each voter claims to be connected. The object is to prevent frauds at primary elections by votes of men not belonging to the party; and committees in charge of primaries may take copies of the registry lists. The voter is not obliged to declare allegiance to any party, but if he refuses so to register he can not vote at any primary. The use of voting machines was authorized.

A general law to prevent corrupt practices at elections was adopted. Candidates and political committees must file statements of expenditures; the expenses of candidates are limited, the maximum from \$100 to \$650. Contributions to defray expenses of naturalization are prohibited. Changes were made in the form of the ballot—a return substantially to the style of the Australian ballot as adopted in the State in 1891. No candidate may have his name on the ballot more than once; if one is nominated by more than one party, the party designations must be set at the right of a brace.

A committee was appointed to investigate charges against the conduct of the Auditor and his examiners in the affairs of the insurance department; and in consequence, presumably, of this inquiry, an act was passed taking the department from the charge of the Auditor, and making the Governor the insurance commissioner, with power to appoint a deputy. The law also provided for an increase of fees from insurance companies. The Governor appointed a deputy, but the Auditor resisted the enforcement of the law, taking the ground that it was unconstitutional, in that it created a new executive office, contrary to the constitutional prohibition. The Supreme Court decided in December against the validity of the law.

Other laws affecting insurance authorized the incorporation of mutual companies to insure against loss of hogs by disease; provided that only resident agents may issue policies on property in the State; that brokers may be licensed to act as agents for companies not authorized to operate in the State; and extending the powers of mutual benefit life associations.

Another committee inquired into charges of newspapers against the Supreme Court and the commission that has been in existence about six years, the object of which was to give help to the court until the number of judges should be increased by constitutional amendment. The charges seem not to have been sustained, as a bill was passed continuing the life of the Supreme Court commission, but it was vetoed.

A law was passed, at the instance of labor leaders and the confederated women's clubs, regulating and limiting the hours of employment of women in manufacturing, mercantile, and mechanical establishments, and requiring that seats be provided for them. The limit is ten hours a day or sixty hours a week.

Children under ten may not be employed in manufacturing or mercantile establishments, nor children under fourteen except in school vacations—with some exceptions. A record of the age and residence of every employee under sixteen must be kept at each establishment, and be open for inspection.

The law relating to deposits of State funds was amended; the interest on daily balances was reduced from 3 to 2 per cent.; and the officers of a bank seeking to qualify as a depository are ineligible to sign the required bond. Warrants issued by the State will draw interest at 4 per cent., instead of 5 as formerly.

It was enacted that any precinct, township, or city of 1,000 to 25,000 inhabitants may issue bonds, and the maximum rate of interest was reduced from 8 to 6 per cent. Provision was made for the refunding of bonded indebtedness of counties, villages, and second-class cities.

A board of medical examiners was created. Other boards that were created were: For examining barbers, for licensing embalmers, for exercising supervision over brands and marks.

Further acts in the interest of health and safety were: Creating an emergency fund for the suppression of epidemics and contagious diseases, to be under the control of the State Board of Health; providing that it shall be unlawful to build fire escapes without permit from the department of labor and in accordance with its directions.

Some amendments were made to the laws regarding irrigation districts and the levying of taxes in them. The law providing for a bounty on trees along section lines was repealed. Dogs were declared personal property, and owners were made liable for damage done by them. Cities and villages of 100 to 25,000 inhabitants are permitted to collect a dog tax of \$1 to \$3, instead of \$3 to \$10. The law relating to destruction of grasshoppers was repealed.

Mutual bond companies were authorized to insure members in offices of responsibility.

A food commission was created, and regulations were made for preventing adulterations of food; \$5,000 annually was appropriated for the department. The power of the Legislature to create the office seems to have been disputed. A packing company applied for an injunction restraining the commission from interference, attacking the legality of the act creating the commission. The court had not passed upon it at the end of the year.

A compulsory education law requires children between eight and fourteen to attend some public, private, or parochial school, and the board of education is required to serve notice on parents of delinquents. Public high schools must be open to nonresident pupils free of tuition to the pupils; but the county where each one resides must pay for him 75 cents a week. A one-mill levy for the State University was made a law.

The Governor vetoed a resolution commending the conduct of the First Nebraska Regiment in the Philippines, objecting to the clauses which spoke of the men as "defending the principles of our Government and adding new glory to the flag." The Senate passed the bill over the veto, but the House had not the necessary three-fifths vote.

Among appropriations made were: \$25,000 for the purchase of an executive mansion; \$13,500 for buying the site of the Soldiers' Home at Milford; \$48,000 for new buildings at the Beatrice Institute for Feeble-minded Youth; \$40,000 for a new wing at the Lincoln Hospital for the Insane; \$20,000 for a new building at the Hast-

ings Hospital for the Incurable Insane. The estimates of expenses deemed necessary by State officers and heads of State institutions, not including new buildings, amounted to \$2,613,235. A deficiency of \$186,785 was included.

Other enactments were:

Providing that receivers in insolvency cases may be paid by salary, percentage, or fixed sum, according to the discretion of the court.

Providing that railroad companies may not permit trainmen to work more than eighteen consecutive hours without eight hours for rest.

Forbidding street railway companies to carry municipal officers free; does not apply to firemen and policemen.

Locating the State fair permanently at Lincoln, and appropriating for buildings.

Requiring pawnbrokers to be licensed and to keep records of pledged goods and descriptions of persons pledging.

Regulating the control of building and loan associations.

An appropriation of \$17,840 was made to pay chicory bounty claims. The bounty law was passed by the Legislature of 1895, but no specific appropriation was made. The Legislature of 1897 declined to make an appropriation, but the Legislature of 1899 appropriated money to pay the chicory bounty, but failed to make provision for the bounty on beet sugar.

A committee was appointed by the Senate to investigate certain charges relative to alleged irregularities in the recount of ballots on a constitutional amendment relating to increasing the number of judges of the Supreme Court, as well as other matters in connection with the official conduct of certain State officers. The Governor vetoed a bill appropriating \$2,000 for expenses of the investigation, but the investigation took place after the adjournment of the Legislature, and the report was finished July 27 and forwarded to the Governor, who declined to receive it, on the ground that the investigation was not properly authorized, the committee without standing, and that he did not wish to encumber his office with documents that are not public. The report declares "that the charges of fraud in connection with the recount on the constitutional amendments have been sustained by the most conclusive evidence, as well as by the appearance of the ballots themselves. It finds that ex-Gov. Holcomb has misappropriated at least \$773 of the amount drawn by him on account of house rent during his terms of office, and recommends that the Attorney-General be instructed to take the necessary steps to recover the amount. The committee also comments with some severity on the action of the State officials in refusing to aid its members in their investigations.

Court Decisions.—The Board of Transportation was created by an act of 1887, and in 1897 its powers were extended so as to apply to telephone, telegraph, and express companies. The Pacific Express Company applied for an injunction to restrain the board from proceeding in the matter of a complaint against certain express rates, taking the ground that the act of 1897 was invalid because, while it was amendatory of the act of 1887, that act was not mentioned in the later act. The Supreme Court decided against the company and declared the law not unconstitutional.

In a suit in which the State sought to recover \$5,622.56, collected as fees by ex-Oil Inspector Hilton and his deputies for the inspection of gasoline, the Supreme Court gave judgment

in favor of the State. The defense was that the law did not require the inspection of gasoline, and therefore the State was not entitled to the fees. The court held that the law did not contemplate the inspection of gasoline.

In an opinion given at the close of the year the Supreme Court held that the State can recover from insurance companies the fees paid to Eugene Moore and retained by him when he left the office of auditor of public accounts. The decision came in the form of a reversal in the case of the State against the Home Insurance Company of New York, in which suit the State sought to recover \$272 from that company. The decision is construed to mean that the State will be able to recover from insurance companies the full amount of Eugene Moore's shortage, amounting to over \$23,000. Nearly the entire shortage comprised fees paid by insurance companies. The court holds that the Constitution prohibited the insurance companies from paying fees to the auditor.

Political.—A State election was held this year for a justice of the Supreme Court and two regents of the university.

Three conventions were held in Omaha, Aug. 22, and all united upon one ticket. The Populists nominated ex-Gov. Silas A. Holcomb for the Supreme Court, and the nomination was accepted by the Silver Republicans and by the Democrats, though not without some opposition on the part of the Democratic convention, where ex-Senator William V. Allen was the choice of many delegates. The candidates for regents were J. L. Teeters and Edson Rich. The platform of the Democratic convention opens as follows: "We, the Democrats of the State of Nebraska, in convention assembled, indorse and emphasize each and every plank of the national platform adopted at Chicago in 1896." Then follows a specific declaration in favor of the free coinage of silver at the ratio of 16 to 1, and this: "Our confidence in the principles set forth in that platform has been increased, as these principles have been vindicated by events. The gold standard is less defensible now than it was in 1896."

The Populist platform contains a deliverance upon the question of the war in the Philippines, protesting that if the Cubans "are and of right ought to be free, the same can be said of the Filipinos, and this nation would suffer no humiliation in acknowledging adherence to the doctrine that governments derive their just powers from the consent of the governed."

The platform of the Silver Republicans is much the same.

The Republican convention met in Omaha, Sept. 21. M. B. Reese was made the candidate for the Supreme Court judgeship, and E. G. McGilton and Dr. William B. Ely were nominated for regents of the university. The resolutions approved the policy of the administration, declared for the gold standard, and denounced "the attempt now desperately being made to again array labor and capital in hostile camps. The Republican party now, as always, opposes trusts and combinations having for their purpose the stifling of competition and arbitrarily controlling production or fixing prices, but we also recognize that legitimate business interests, fairly capitalized and honestly managed, have built up our industries at home, given the largest employment to labor at the highest wage, and have enabled us to successfully compete with foreign countries in the markets of the world. Such industries must not be struck down by legislation aimed at dishonestly organized institutions which

destroy legitimate enterprise and the opportunities of labor and plunder the public. We favor the creation by act of Congress of a bureau of supervision and control of corporations engaged in interstate business with powers similar to those exercised over national banks by the controller of the currency, enforcing such publicity and regulations as shall effectually prevent dishonest methods and practices, and generally such legislation, State and national, as from time to time may be required for the correction of abuses."

The resolutions also recommended a liberal pension policy, commended the loyalty of the sound-money Democrats, and praised the bravery of the First Nebraska Volunteers in the Philippines.

The Prohibition party made no nomination for justice, but named Charles E. Smith and Albert Fitch for regents.

The result of the election was the success of the fusion candidates. The vote for justice stood: Holcomb, 109,320; Reese, 94,213. For regents, the returns gave: Teeters, 101,194; Rich, 96,202; Ely, 94,411; McGilton, 90,464; Smith, 5,695; Fitch, 4,437.

A dispatch from Hastings, Dec. 23, notices the organization of a new party. It says: "Under the banner of the Union Reform party over three-score delegates met here to-day and effected a State organization. The old Middle-of-the-Road element is behind the plan, and the spirit of that branch of Populism was rampant. The convention was sprinkled with Democrats, but at no time during the conference was Bryan's name mentioned. Ordinances as fundamental law of party organization and management were adopted, and channels laid out by which contributions may reach national headquarters. The National Union Reform party platform was adopted."

NETHERLANDS, a monarchy in western Europe. The legislative authority is vested in the States General, consisting of a First Chamber, containing 50 members, elected by the provincial councils for nine years, and a Second Chamber, containing 100 members, elected for four years by the direct votes of all citizens who pay 10 guilders of direct taxes above the limit of partial exemption or who occupy separate dwellings. The reigning sovereign is Queen Wilhelmina, born Aug. 31, 1880, daughter of Willem III by his marriage with Princess Emma of Waldeck, who succeeded to the throne Nov. 23, 1890, on the death of her father, and assumed the royal authority on Sept. 6, 1898, the Queen Dowager having acted as regent during her minority.

The Council of Ministers constituted July 26, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs, Dr. W. H. de Beaufort; Minister of the Interior, Dr. H. Goeman Borgesius; Minister of Finance, Dr. N. G. Pierson; Minister of Justice, Dr. P. W. A. Cort van der Linden; Minister of the Colonies, J. T. Cremer; Minister of Marine, J. C. Jansen; Minister of War, Lieut.-Gen. K. Eland; Minister of Public Works and Commerce, C. Lely.

Area and Population.—The area of the Netherlands, or Holland, is 12,648 square miles. The population was 4,511,415 at the census of 1889, and on Dec. 31, 1897, it was computed to be 5,004,204. On Dec. 31, 1898, the estimated population was 5,074,631, of whom 2,513,267 were males and 2,561,364 females. The number of emigrants in 1897 was 792; but the emigrants, both Dutch and foreigners, that took passage in Dutch ports numbered 9,036. Amsterdam at the end of 1897 had 503,285 inhabitants; Rotterdam, 298,433; The

Hague, 196,325. The number of marriages in 1898 was 36,817; of births, 167,991; of deaths, 93,039; excess of births, 74,152; emigration, 1,172.

Finances.—The revenue of the Government in 1897 was 135,408,474 guilders from ordinary and 260,000 guilders from extraordinary sources; total, 135,668,474 guilders. The expenditures were 39,312,394 guilders for defense, 32,643,746 guilders for the debt, 11,596,285 guilders for public works, and 55,674,733 guilders for general expenses; total, 139,227,158 guilders. The estimate of revenue for 1898 was 134,432,350 guilders, and of expenditure 141,743,746 guilders. For 1899 the budget estimate of revenue was 140,796,900 guilders, and of expenditure 152,613,959 guilders. Of the revenue for 1899 the land tax was estimated to yield 12,400,000 guilders; the personal tax, 8,675,000 guilders; the tax on capital, 7,000,000 guilders; the tax on incomes from trades and professions, 5,044,000 guilders; excise duties, 45,600,000 guilders; indirect taxes, 20,732,000 guilders; import duties, 8,816,950 guilders; the tax on gold and silver plate, 300,900 guilders; domains, 2,350,000 guilders; the post office, 9,447,000 guilders; the telegraphs, 1,795,000 guilders; the state lottery, 659,000 guilders; shooting and fishing licenses, 130,000 guilders; pilot dues, 1,950,000 guilders; mining dues, 7,245 guilders; state railroads, 4,162,990 guilders; share of the interest and sinking fund of the debt paid by the Government of the East Indies, 3,847,250 guilders; miscellaneous receipts, 7,789,565 guilders. The total yield of direct taxes in 1897 was 32,998,960 guilders; of excise duties, 44,800,796 guilders; of indirect taxes, 20,075,659 guilders; of customs duties, 8,588,810 guilders. Of the expenditures as provided in the budget for 1899 the civil list took 800,000 guilders; the legislative body and royal Cabinet, 684,707 guilders; the Ministry of Foreign Affairs, 849,134 guilders; the Ministry of the Interior, 15,067,028 guilders; the Ministry of Justice, 5,841,167 guilders; the Ministry of Marine, 15,890,424 guilders; the Ministry of War, 22,585,901 guilders; the Ministry of Finance, 25,081,465 guilders; the Ministry of Public Works and Commerce, or Waterstaat, 26,633,231 guilders; the Ministry of the Colonies, 1,300,696 guilders; the public debt, 37,830,205 guilders; provision for contingencies, 50,000 guilders. The total receipts for 1899 were estimated at 140,796,900 guilders, of which direct taxes supplied 33,209,000 guilders, excise 45,600,000 guilders, stamps, registration, and succession duties 20,732,000 guilders, customs 8,816,950 guilders, guarantee of works of gold and silver 300,900 guilders, domains 2,350,000 guilders, posts 9,447,000 guilders, telegraphs 1,795,000 guilders, lottery 659,000 guilders, hunting and fishing licenses 150,000 guilders, pilot dues 1,950,000 guilders, railroads 4,162,990 guilders, and other sources 11,638,060 guilders. The total expenditures for 1899 were estimated at 151,744,632 guilders.

The funded debt in 1899 consisted of 626,008,500 guilders of 2½-per-cent. consols, 517,327,000 guilders of loans issued in 1895 and 1898 at 3 per cent., and 294,000 guilders of 5-per-cent. and 2,719,693 guilders of 6-per-cent. bonds issued for the purchase of railroads and maturing in 1899; total, 1,146,349,193 guilders, requiring an annual payment of 31,289,614 guilders for interest and 6,228,571 guilders for the sinking fund and redemption of debt. The annuities amounted to 262,019 guilders for the year, and interest on floating debt to 50,000 guilders, making the annual charge to the public debt 37,830,204 guilders. The interest in 1898 was 29,852,993 guilders, and the sinking fund 2,638,100 guilders.

The paper money amounts to 15,000,000 guilders. Since 1850 the payments for redemption of debt have amounted to 302,868,689 guilders.

The expenditure of the provincial administrations amount to 5,760,000 guilders per annum, and the expenditures of communes to 93,994,000 guilders, including 22,051,000 guilders of interest on debts.

The Army.—The standing army at the end of 1897 consisted of 1,971 officers and 27,834 men. The main part is composed of soldiers enlisted for a term of years, in addition to whom about 11,000 young men are drawn by lot every year to serve in the ranks for twelve months, after which they are summoned for six weeks of training each year till the five years of service in the active army have passed. Substitution was abolished by the law of 1898, and personal service was rendered compulsory without exemption except for ministers of religion. The militia embraces the whole male population capable of bearing arms, and is divided into three bans, one composed of the unmarried men and widowers who have no children, one of men with small families which are able to subsist without their labor, and one of married men and widowers who have sons in the militia. The first ban in 1897 numbered 42,243 men. The colonial army of the East Indies has no connection with that of the Netherlands.

The Navy.—The naval force maintained for the defense both of the Dutch coast and the East Indies consists of 6 armor clads, 20 armored gunboats of from 240 to 2,500 tons, 3 fast and powerful deck-protected cruisers, 50 unprotected cruisers, gunboats, and small-armed craft for river and harbor defense, 28 first-class torpedo craft, and 28 torpedo boats of the second and third classes. Whenever vessels become obsolete or inefficient they are replaced by modern ships, according to an authorized programme. The ram *Koningin Willemine*, of 4,600 tons, carries 1 11-inch, 1 8½-inch, and 2 6½-inch guns in turrets protected by 9½ inches of armor, and has a nominal speed of 17 knots. The *Koning der Nederlanden*, of 5,400 tons, is protected by 8-inch plates and armed with 4 11-inch guns, but can make only 11 knots. The *Prins Hendrik*, of 3,375 tons, carries 4 8½-inch and 4 4½-inch guns, and has a speed of 12 knots. The *Evertsen*, *Kortenaer*, and *Piet Hein*, of 3,400 tons, having 6 inches of armor on their sides, are designed to carry 3 guns of 8½ and 6 inches caliber, and to have a speed of 20 knots. The new protected cruisers are the *Holland*, *Zeeland*, and *Friesland*, built for a speed of 20 knots, and an armament of 2 6-inch and 6 4½-inch guns, besides smaller quick-firing and machine guns.

Commerce and Production.—There were 865,458 hectares under crops in 1896, and of pasture lands 1,182,879 hectares, 61,405 hectares of garden and orchard, and 248,383 hectares of forest; total productive area, 2,358,125 hectares. Of estates exceeding 100 hectares there were only 192, while 25,198 ranged from 20 to 100 hectares, 64,147 from 5 to 20 hectares, and 78,813 were less than 5 hectares, 58.5 per cent. of the total number being cultivated by the proprietors and 42.8 per cent. by tenant farmers. Of the area cropped, 214,917 hectares were devoted to rye, 150,203 hectares to potatoes, 128,420 hectares to oats, 62,265 hectares to wheat, 45,571 hectares to beets, and the rest to barley, beans, buckwheat, peas, flax, and minor crops. The imports of wheat in 1897 were 144,359,000 guilders in value, and exports 113,677,000 guilders; imports of rye were 78,838,000 guilders, and exports 37,769,000

guilders; imports of rye and wheat flour were 48,870,000 guilders, and exports 12,227,000 guilders; imports of barley were 27,395,000 guilders, and exports 19,239,000 guilders; imports of oats were 23,398,000 guilders, and exports 20,352,000 guilders; imports of potatoes were 197,000 guilders, and exports 1,081,000 guilders; imports of potato starch were 4,230,000 guilders, and exports 16,059,000 guilders; imports of buckwheat were 2,956,000 guilders, and exports 1,013,000 guilders; imports of flax were 967,000 guilders, and exports 13,585,000 guilders; imports of beets were 107,000 guilders, and exports 1,494,000 guilders; imports of bulbs, plants, and trees were 425,000 guilders, and exports 5,109,000 guilders; imports of vegetables were 1,752,000 guilders, and exports 39,167,000 guilders. The herring catch in the North Sea in 1897 was valued at 5,567,756 guilders.

The total value of imports of cereals and flour in 1897 was 325,816,000 guilders, and of exports 204,277,000 guilders; imports of drugs were 176,105,000 guilders, and exports 236,726,000 guilders; imports of iron and steel and manufactures thereof were 160,196,000 guilders, and exports 101,142,000 guilders; imports of textile materials and manufactures were 98,339,000 guilders, and exports 73,984,000 guilders; imports of copper were 72,882,000 guilders, and exports 67,801,000 guilders; imports of timber and wood were 50,944,000 guilders, and exports 34,298,000 guilders; imports of coffee were 47,939,000 guilders, and exports 24,762,000 guilders; imports of sugar were 25,854,000 guilders, and exports 54,440,000 guilders; imports of margarine were 19,018,000 guilders, and exports 48,093,000 guilders; imports of rice were 44,955,000 guilders, and exports 20,110,000 guilders; imports of hides and skins were 26,921,000 guilders, and exports 29,696,000 guilders; imports of coal were 49,516,000 guilders, and exports 3,480,000 guilders; imports of saltpeter were 21,760,000 guilders, and exports 19,686,000 guilders; imports of oil seeds were 32,917,000 guilders, and exports 15,881,000 guilders; imports of paper were 5,144,000 guilders, and exports 32,035,000 guilders; imports of tin were 18,914,000 guilders, and exports 15,365,000 guilders; imports of paints were 12,250,000 guilders, and exports 10,787,000 guilders; imports of grease and tallow were 22,331,000 guilders, and exports 9,326,000 guilders; imports of butter were 1,655,000 guilders, and exports 17,625,000 guilders; imports of cheese were 82,000 guilders, and exports 13,334,000 guilders; imports of mineral oil were 11,419,000 guilders, and exports were 82,000 guilders; imports of flax were 967,000 guilders, and exports 12,685,000 guilders; imports of indigo were 8,789,000 guilders, and exports 6,119,000 guilders; imports of zinc were 10,997,000 guilders, and exports 10,792,000 guilders; imports of tobacco were 9,208,000 guilders, and exports 5,388,000 guilders. The imports of gold and silver in 1897 were 22,194,000 guilders, and the exports were 81,000 guilders.

The total value of imports in 1898 was 1,795,700,000 guilders, of which amount 544,300,000 guilders represent articles of alimentation, 654,800,000 guilders raw materials, 290,500,000 guilders manufactured articles, 273,500,000 guilders miscellaneous merchandise and 32,600,000 guilders precious metals. The total value of exports was 1,515,800,000 guilders, of which 518,300,000 guilders represent alimentary substances, 547,300,000 guilders raw materials, 288,600,000 guilders manufactured articles, 159,300,000 guilders miscellaneous merchandise, and 2,300,000 guilders precious metals. The commerce of 1898, valued in guilders,

was distributed among different countries as shown in the following table:

COUNTRIES.	Imports.	Exports.
Germany	00	787,300,000
Great Britain ..	00	337,800,000
Dutch India	00	68,600,000
Belgium	00	180,900,000
United States	00	41,400,000
Russia	00	7,400,000
British India	00	1,600,000
France	00	32,100,000
Sweden and Norway ..	00	10,100,000
Spain	00	2,900,000
Roumania	00	3,800,000
Brazil	00	.....
Peru and Bolivia	00	.....
Italy	00	3,800,000
Turkey	00	6,100,000
Africa ..	00	4,600,000
All other countries ..	00	45,000,000
Total	1,785,700,000	1,815,800,000

Navigation.—During 1898 there were 1,201 sailing vessels, of 954,538 cubic metres, entered at the ports of Holland, 534 of them, of 251,124 cubic metres, being Dutch, and 667, of 897,281 cubic metres, having cargoes. The number of sailing vessels cleared was 1,288, of 959,032 cubic metres, of which 626, of 264,051 cubic metres, were Dutch, and 662, of 383,878 cubic metres, carried cargoes. The total number of steamers entered was 9,866, of 23,652,325 cubic metres, of which 2,468, of 5,958,563 cubic metres, were Dutch, and 9,405, of 23,017,237 cubic metres, brought cargoes. The number of steamers cleared was 9,709, of 23,466,194 cubic metres, of which 2,480, of 5,991,166 cubic metres, were Dutch, and 6,279, of 12,214,790 cubic metres, carried cargoes.

The Dutch mercantile navy in the beginning of 1899 consisted of 429 sailing vessels, of 249,918 cubic metres, and 176 steamers, of 605,375 cubic metres.

Railroads, Posts, and Telegraphs.—There were 2,648 kilometres of railroads in operation on Jan. 1, 1899. The telegraph lines of the Government had a total length of 5,907 kilometres, with 20,945 kilometres of wire. The number of dispatches during the year was 5,072,788, of which 2,678,420 were internal, 2,279,271 international, and 115,097 service dispatches. The receipts were 3,590,552 francs; the ordinary expenditures 4,835,333, and extraordinary 1,183,735 francs.

The post office in 1898 forwarded 78,375,000 internal and 26,622,000 foreign letters, 40,510,000 internal and 7,724,000 foreign postal cards, 130,450,000 internal and 15,671,000 foreign newspapers and circulars, and 3,702,000 internal letters with declarations of value and postal money orders, remitting 353,838,000 francs, and 617,000 foreign ones, remitting 120,211,000 francs.

Legislation.—The States General in the session opened on Sept. 19, 1899, gave long consideration to a measure for the reorganization of the army. Another bill dealt with labor contracts, and one was passed against the excessive consumption of spirituous liquors. Changes were made in the import duties, and a different system was adopted for the keeping of public accounts. The estimates for 1900 amounted to 151,000,000 guilders, showing a deficit of 6,500,000 guilders, of which 3,500,000 guilders represented expenditure on public works. The accumulated deficit from previous years was reduced to 15,500,000 guilders. There was an increase of 650,000 guilders in army expenditure, but the Minister of Finance saw no necessity for fresh taxation.

The Peace Conference.—The proposal of the Emperor of Russia for a conference on the limita-

tion of armaments, communicated by Count Muravieff to the foreign representatives in St. Petersburg on Aug. 24, 1898, in a circular that was commonly called the Czar's *ironicon*, received ostensibly favorable and sympathetic responses from all the governments, and they promised to delegate representatives to the conference whenever they received the invitation. Lord Salisbury suggested that this should be accompanied by some indication of the special points to which the attention of the conference was to be directed. On Dec. 30, 1898, Count Muravieff, at the Czar's behest, addressed a second circular to the powers, in which the restriction and diminution of armaments, the extension of arbitration as a mode of settling international differences without war, and the modification of the laws of war so as to bring them more nearly into accord with modern ideas of humanity and civilization were indicated as the general objects of the conference, with a suggestion that the conference be not held in the capital of any great power, where political interests center that might impede its work. Since the issue of the *ironicon* some of the powers had taken steps to increase their armaments. Notwithstanding these untoward symptoms, the hope was expressed that the general situation would again become favorable to the success of the conference. It was suggested that there should be a preliminary exchange of ideas between the cabinets in order to prepare the way for diplomatic discussion, with the object of seeking without delay means for putting a stop to the progressive increase of military and naval armaments, which had become more urgent in view of the fresh extension given to those armaments, and of preparing the way for the discussion of questions relating to the possibility of preventing armed conflicts by the pacific means at the disposal of international diplomacy. It was well understood that, as a condition of holding the conference, nothing touching the existing political relations of states or the actual order of things as established by treaties, should be admitted as a subject of discussion, nor in general any question not entering into the programme adopted by the cabinets. In this second Russian circular the following subjects were tentatively suggested as matters for the preliminary consideration of the powers suitable for discussion at the conference:

"An understanding not to increase for a fixed period the present effective of the armed military and naval forces, and at the same time not to increase the budgets pertaining thereto. A preliminary examination of the means by which a reduction might even be effected in the future in the forces and budgets above mentioned.

"To prohibit the use in the armies and fleets of any new kind of firearms whatever and of new explosives, or any powders more powerful than those now in use, either for rifles or cannon; to restrict the use in military warfare of the formidable explosives already existing, and to prohibit the throwing of projectiles or explosives of any kind from balloons or by any similar means; to prohibit the use in naval warfare of submarine torpedo boats or plungers or other similar engines of destruction; to give an undertaking not to construct vessels with rams in the future; to apply to naval warfare the stipulations of the Geneva convention of 1864 on the basis of the articles added to the convention of 1868; to neutralize ships and boats employed in saving those overboard during or after an engagement; and to raise the declaration concerning the laws and customs of war elaborated in 1874 by the

conference of Brussels, which has remained unratified to the present day.

"To accept in principle the employment of the good offices of mediation and optional arbitration in cases lending themselves thereto, with the object of preventing armed conflicts between nations; an understanding with respect to the mode of applying these good offices, and the establishment of a uniform practice in using them."

Questions of a technical character would have to be dealt with by the aid of specialists who should be invited to take part in the labors of the conference.

Both circulars were sent through the Russian minister to the Vatican at the same time and in the same manner as to the other governments. The Government of Italy, which had acquiesced in the admission of a papal delegate to the International Metrical Congress of 1872, with the reservation that it should not be taken as a precedent for the representation of the Vatican in conferences of a political character, intimated that it would send no representative if the Holy See were invited to take part in the conference. The efforts of partisans of the Church to secure the representation of the Vatican for the avowed purpose of establishing its position as an international state and raising political questions confirmed the Italian Government in its attitude. The incorporation of Tuscany, Modena, Parma, the Two Sicilies, and the papal states in the Kingdom of Italy had indeed never been consecrated by treaty, as the cession of Alsace-Lorraine to Germany had been, and if territorial questions came to be discussed in the conference the rights of the deposed princes and the temporal power of the Pope could not be excluded. The invitations to the conference were issued by the Government of the Netherlands, The Hague having been selected by the Czar as the place of meeting. The Czar's Government retained the initiative and the right to decide the preliminary conditions. No programme was discussed or decided upon by the cabinets beforehand. No invitation was sent to the Vatican, the Italian minister having, on Feb. 16, positively informed the Dutch Government that the presence of a papal delegate would be incompatible with that of a representative of Italy, and when the conference assembled the papal internuncio departed from The Hague. The Dutch Government desired to send invitations to the South African Republic and the Orange Free State. The British Government, however, let it be known that it would not recognize the international position of the former. The Dutch Government therefore suggested that in order not to make an invidious distinction between the two Boer republics neither should be invited. The Porte consented to the representation of Bulgaria, but raised a question of precedence, which was settled by seating the Bulgarian representatives with the Turkish delegation, but giving them an independent vote. Montenegro was represented only by the Russian delegates. None of the Spanish-American republics received an invitation. Outside of Europe, only the United States, China, Japan, Persia, and Siam were invited to send delegates.

The conference assembled in the Huis ten Bosch at The Hague on May 18. Baron De Staal, the first Russian delegate, was elected president. The states represented were Germany, the United States, Austria-Hungary, Belgium, China, Denmark, Spain, France, Great Britain, Greece, Italy, Japan, Luxembourg, Netherlands, Persia, Portugal, Roumania, Russia, Servia, Siam, Sweden and Norway, Switzerland, Turkey, and Bulgaria.

Three commissions were appointed. The first commission, which had to inquire into the question of the restriction of armaments and expenditure for military purposes, had as material to guide its deliberations Prince Metternich's memorandum of 1816 regarding the suggestion of the Prince Regent of England, supported by Alexander I of Russia, that the normal peace footing of the individual powers should be determined by an international conference; the letter sent by Napoleon III, the Emperor of the French, on Nov. 4, 1863, to the various sovereigns of Europe, proposing a conference in Paris to lay the foundations of universal peace; and documents containing arguments for disarmament or the reduction or limitation of armaments by Rolin Jacquemyns, Prof. Lorimer, Count Kamarowski, David Dudley Field, M. Merignhac, Johann von Bloch, M. Bastiat, and Prince Obolinsky. The second commission, which dealt with the laws governing civilized warfare, had its attention directed to the declaration of the congress of Paris signed on April 6, 1856; the Geneva convention of Aug. 22, 1864; the additional clauses to the Geneva convention adopted on Oct. 20, 1868, but never ratified; the St. Petersburg convention prohibiting among civilized nations the use of certain projectiles; the minutes of the Brussels conference of 1874 on the laws and observances of war, which did not lead to the conclusion of a convention; the original suggestions for an international convention on the laws and observances of war which the Russian Government laid before the Brussels conference; the manual on the laws of land warfare adopted by the Institute of International Law sitting at Oxford in 1880; the rules regarding the bombardment of cities by naval forces adopted by the Institute of International Law sitting at Venice in 1896; the declaration of France and Great Britain regarding the additional clauses to the Geneva convention; the proposal of M. Moynier for the revision of the Geneva convention; the provisional programme submitted by the Swiss Federal Council; and the circular sent by the Dutch Minister of Foreign Affairs on Feb. 13, 1871, suggesting an agreement of the powers to admit the principle of the inviolability of private property on the seas and a precise definition of the term contraband of war. The third commission, to which the question of mediation and arbitration was referred, received as documents to guide its deliberations Lord Clarendon's proposal at the Paris congress of 1856 as regards a friendly state being called in as mediator before having recourse to force; Signor Mancini's resolution presented in the Italian Chamber of Deputies, expressing the hope that arbitration would become the frequent and accepted method of solving international controversies in accordance with the principles of justice; the resolution regarding compromise adopted by the Institute of International Law sitting at Zurich in 1877; the twelfth article of the general act of the Berlin conference of 1885, regarding mediation or arbitration in the case of controversies connected with the basins of the Congo and the Niger; the scheme of procedure in international arbitration drawn up by the Institute of International Law sitting at The Hague in 1875; David Dudley Field's plan for the establishment of an international arbitration tribunal; the bases of an international treaty for arbitration laid down at the meeting of the Association of International Law at Brussels in 1895; the proposal for the establishment of a permanent court of international arbitration adopted by the interparliamentary conference at Brussels in 1895;

the conclusions arrived at in the interparliamentary conference on arbitration and peace which met at Brussels in 1897; the Washington treaty of May 8, 1871; the proposal for the establishment of a tribunal of arbitration for the settlement of disputes between states of North, Central, and South America, signed at Washington on April 18, 1890; Lord Salisbury's letters of March 5 and May 18, 1896, to the British ambassador at Washington relating to the conclusion of a treaty of arbitration; the treaty of arbitration concluded between the United States and Great Britain, but not ratified; the treaty providing for arbitration between the Argentine Republic and Italy, signed at Rome on July 23, 1898; the fifty-fifth and fifty-eighth clauses of the Brussels general act of July 2, 1890; the twenty-third clause of the Universal Postal Convention of July 4, 1891; the decisions of the Madrid Judicial Congress of 1892; and the opinion of M. Descamp on the subject of arbitration.

The 15 articles added to the Geneva convention of 1864 by the second convention of 1868, which Russia proposed to bring before the conference, aimed at giving more security for the protection of the wounded during war on land, and at applying for the first time in naval warfare the principles of the Red Cross. After they were adopted by the Geneva conference Russia proposed an amendment to one of the articles that Germany hesitated to accept, and that the Netherlands and Portugal accepted only with reservations. Hence the convention was never ratified. During the Franco-German War the two belligerents agreed upon a special *modus vivendi* for observing the additional articles.

Petitions were received from the Armenian and Macedonian committees and from Finland presenting the grievances of the former against the Turkish Government and of the latter against violations of its charter of liberties by the Russian Government. The petitioners were given to understand that the conference could not go outside of the points contained in Count Muravieff's circular.

The American delegates submitted a proposal for exempting private property at sea from capture. It was not supported by Great Britain, and was opposed by France and Russia, as it would enable Great Britain to wage war without endangering her vast commerce or her food supplies, and allow her to concentrate her great naval forces against a weaker enemy. The representatives of other countries having small shipping interests were also opposed to the proposal. The United States had declined in 1856 to sign the declaration of Paris abolishing privateering and agreeing that the neutral flag covers enemy's goods except contraband of war; but at that time the United States Government expressed its willingness to forego the right of privateering if the powers would agree to declare all private property at sea exempt from capture, as President Monroe had argued that it ought to be. In the Spanish-American War the governments of the United States and Spain issued declarations that they would not employ privateers. The proposal submitted by the American commissioners to the Peace Conference was as follows:

"The private property of all citizens or subjects of the signatory powers, with the exception of contraband of war, shall be exempt from capture or seizure on the high seas or elsewhere by the armed vessels or by the military forces of any of the said signatory powers. But nothing herein contained shall extend exemption from seizure to vessels and their cargoes which may

attempt to enter a port blockaded by the naval forces of any of the said powers."

The commission would not admit that the subject came within the scope of the matters to be considered at the conference as defined in the circular of the Russian minister, and resolved to refer its consideration to a future conference.

The Russian delegates laid before the first commission the following proposals for the limitation of the military forces and budgets:

"1. The establishment of an international agreement for a term of five years stipulating the nonaugmentation of the present peace establishment of the troops serving in their own country.

"2. In case such an agreement be arrived at, the strength of the armies of all the powers, not including colonial forces, shall be determined for time of peace.

"3. The maintenance for the same term of five years of the military budgets at their present figures."

The Russian proposal for the limitation of naval armaments was as follows:

"Acceptation of the principle that for a term of three years the sum of naval budgets shall be determined, with the engagement not to increase the total during that triennial period, and with the obligation of announcing in advance for the said period, first, the total in tonnage of those ships of war which it is proposed to build without specifying the models thereof; secondly, the number of officers and crews in the navy; thirdly, the expenditure on works in ports, such as forts, docks, arsenals, etc."

None of the Continental military experts favored the principle of arresting or limiting the military armaments. The German delegate denied that military service was a burden in his country, arguing that, on the contrary, the army had made Germany united, strong, and prosperous, and was a school of civic virtue, of duty, energy, and application. Germany, England, and other countries were equally loath to submit their naval armaments to international control or self-denying restrictions. The commission, on June 30, adopted the following conclusions:

"1. That it would be very difficult to determine, even for a period of five years, the figure of effective forces without regulating at the same time the other elements affecting national defense.

"2. That it would be no less difficult to regulate by an international convention the elements of that defense as organized in each country according to very different views.

"3. That the restriction of the military burdens that at present weigh upon the world is greatly to be desired for the material and moral welfare of humanity."

The convention for the peaceful regulation of international conflicts by mediation and arbitration contains the principal ideas of the Russian, British, and American projects, in so far as they do not conflict with suggestions made by French, German, Belgian, Portuguese, and other delegates. Clauses providing for obligatory arbitration in certain classes of cases were omitted because Germany objected strongly to anything of the nature of compulsion. The Russian delegates first submitted the scheme proposed by their Government of mediation and arbitration. The British representatives had another plan, involving the creation of a permanent tribunal, which was acceptable to the Russians. A permanent court was also a feature of the American scheme, more complete and elaborate than the British. The American representatives also introduced a plan

for special arbitration. The text of the convention finally completed and adopted by the conference is as follows:

"THE MAINTENANCE OF THE GENERAL PEACE.

"ARTICLE I.—In order to prevent as far as possible the recourse to force in international relations, the signatory powers agree to employ all their efforts to bring about, by pacific means, the solution of the differences which may arise between states.

"GOOD OFFICES AND MEDIATION.

"ART. II.—The signatory powers agree that in case of grave disagreement or conflict, before appealing to arms, they will have recourse, so far as circumstances allow it, to the good offices or mediation of one or more of the friendly powers.

"ART. III.—Independently of this recourse, the signatory powers consider it useful that one or more powers that are not concerned in the conflict should offer of their own initiative, so far as the circumstances lend themselves to it, their good offices or their mediation to the disputing states.

"The powers not concerned in the conflict have the right of offering their good offices or their mediation even during the course of hostilities.

"The exercise of this right can never be considered by either of the disputing parties as an unfriendly act.

"ART. IV.—The part of the mediator consists in the reconciliation of contrary pretensions and in the allaying of the resentments which may be caused between the disputing states.

"ART. V.—The duties of the mediator cease from the moment when it is announced, whether by one of the disputing parties or by the mediator himself, that the compromise or the bases of a friendly understanding proposed by him have not been accepted.

"ART. VI.—Good offices and mediation, whether recourse is had to them by one of the disputing parties or on the initiative of powers not concerned in the conflict, have exclusively the character of counsel and are devoid of any obligatory force.

"ART. VII.—The acceptance of mediation can not have the effect, unless it be agreed to the contrary, of interrupting, retarding, or impeding mobilization and other measures preparatory to war.

"If it (mediation) intervenes before the opening of hostilities, it does not, unless the contrary be agreed upon, interrupt the current military operations.

"ART. VIII.—The signatory powers agree to recommend the application, in circumstances which permit it, of a special mediation in the following form:

"In the case of a grave disagreement endangering peace the disputing states should each choose one power to which they may intrust the mission of entering into direct communication with the power chosen by the other side for the purpose of preventing the rupture of pacific relations.

"During the continuance of their mandate, the duration of which, unless the contrary is stipulated, can not exceed thirty days, the question in dispute is considered as referred exclusively to these powers. They must apply all their efforts to arranging the difference.

"In case of the actual rupture of pacific relations these powers remain charged with the common mission of profiting by every opportunity of re-establishing peace.

"INTERNATIONAL COMMISSIONS OF INQUIRY.

"ART. IX.—In cases in which a difference of appreciation of questions of fact should arise between the signatory powers which has given rise to a disagreement of an international character which could not be settled by the ordinary diplomatic methods, and in which neither the honor nor the vital interests of these powers are at stake, the interested parties agree to have recourse, so far as the circumstances permit it, to the institution of international commissions of inquiry, in order to establish the circumstances which have given rise to dispute and to clear up by an impartial and conscientious inquiry on the spot all questions of fact.

"ART. X.—The international commissions of inquiry are instituted by special convention between the disputing parties, defining the scope of the inquiry and the powers of the commissioners. The question at issue is to be argued from the standpoint of the two contending parties.

"ART. XI.—The commissions of inquiry, unless otherwise stipulated, are constituted as described in Article XXXI.

"ART. XII.—The interested powers undertake to furnish to the international commission of inquiry, to the fullest extent that they shall consider possible, all the means and all the facilities necessary for the complete knowledge and exact appreciation of the facts in question.

"ART. XIII.—The international commission of inquiry shall present to the interested powers its report signed by all the members of the commission.

"ART. XIV.—The report of the international commission of inquiry has in no wise the character of an arbitral decision. It leaves the disputing powers entire freedom, either to conclude a friendly arrangement on the basis of this report or to have recourse ultimately to mediation or to arbitration.

"INTERNATIONAL ARBITRATION.

"ART. XV.—International arbitration has for its object the settlement of disputes between states by judges of their own choosing and in conformity with their reciprocal rights.

"ART. XVI.—In questions of right, and especially in questions of the interpretation or application of international conventions, arbitration is recognized by the signatory powers as the most effective and at the same time the most equitable means of settling disputes not arranged by diplomatic methods.

"ART. XVII.—The agreement to arbitrate may be concluded for disputes already in existence or for disputes about to arise. It can deal with every sort of dispute or only with disputes of a specified category.

"ART. XVIII.—The arbitral convention involves an engagement to submit in good faith to the arbitral decision.

"ART. XIX.—Independently of general or special treaties, which may already bind the signatory powers to have recourse to arbitration, these powers reserve to themselves the liberty to conclude, either before the ratification of the present article or afterward, new agreements, general or particular, with the object of extending compulsory arbitration to all cases which they judge capable of being submitted to it.

"ART. XX.—With the object of promoting the development of arbitration, the signatory powers consider it useful to lay down certain rules concerning arbitral jurisdiction and procedure.

"These provisions are only applicable in case

the parties themselves do not adopt other rules with reference to this matter.

"OF THE PERMANENT COURT OF ARBITRATION.

"ART. XXI.—With the object of facilitating immediate recourse to the arbitration of international differences not settled by diplomatic means the signatory powers pledge themselves to organize in the following manner a permanent court of arbitration, accessible at all times and working, except there be a contrary stipulation of the disputing parties, in conformity with the rules of procedure inserted in the present convention.

"ART. XXII.—This court has competence in all cases of arbitration unless the disputing parties agree to establish a special arbitral jurisdiction.

"ART. XXIII.—An international bureau established at The Hague, and placed under the direction of a permanent secretary general, is to act as the office of the court.

"It is to be the intermediary for the communications dealing with the meetings of the latter.

"It is to have care of the archives and the conduct of all the administrative business.

"The signatory powers shall communicate to the bureau a copy of every agreement to resort to arbitration and of every arbitral decision made by special arrangement apart from the permanent court. They shall likewise communicate all laws, regulations, and documents evidencing the execution of sentences of the court.

"ART. XXIV.—Each of the signatory powers shall designate in the three months following the ratification of the present act four persons at the most, of recognized competence in questions of international law, and enjoying the highest esteem, and ready to accept the duties of arbitrators.

"The persons thus nominated will be entered, with the title of members of the court, on a list which will be communicated by the bureau to all the signatory powers.

"Every modification of the list of arbitrators shall be brought to the notice of the signatory powers by the bureau.

"Two or more powers may agree to nominate one or more members in common.

"The same person may be nominated by different powers.

"The members of the court are appointed for a term of six years. Their appointment may be renewed.

"In case of the decease or of the retirement of a member of the tribunal the vacancy will be filled in accordance with the rules established for nomination.

"ART. XXV.—The signatory powers which desire to apply to the court for the settlement of differences which have arisen between them choose out of the general list the number of arbitrators jointly agreed upon.

"They give notice to the bureau of their intention to apply to the court and of the names of the arbitrators whom they have nominated.

"In case of a difficulty arising as to the choice of an umpire the choice is to be intrusted to a third power designated by agreement between the parties. Failing such agreement, each party is to designate a different power, and the umpire is to be agreed upon by the powers thus designated.

"ART. XXVI.—The tribunal sits usually at The Hague.

"It has the right to sit elsewhere with the consent of the parties in litigation.

"ART. XXVII.—Every power, though not a signatory of this act, can apply to the court

under the conditions prescribed by the present convention.

"ART. XXVIII.—The signatory powers consider it a duty, in case a sharp conflict should threaten to break out between two or more of them, to remind these that the permanent court is open to them.

"Consequently, they declare that the fact of one or several of them reminding the disputing states of the provisions of the present convention and the advice given, in the higher interest of peace, to apply to the permanent court, can only be considered an exercise of good offices.

"ART. XXIX.—A permanent council, composed of the diplomatic representatives of the signatory powers resident at The Hague and the Dutch Minister for Foreign Affairs, who shall discharge the functions of president, shall be constituted in that city as soon as possible after the ratification of the present act.

"This council shall be charged with establishing and organizing the international bureau, which shall remain under its direction and under its control.

"It shall notify the powers of the constitution of the court, and shall provide for its installation.

"It shall decree its procedure, as well as all other necessary regulations.

"It shall decide all questions which may arise touching the working of the tribunal.

"It shall have absolute powers as to the nomination, suspension, or recall of the functionaries and employees of the bureau.

"It shall fix the pay and salaries, and control the general expenditure.

"The presence of five members at meetings duly convoked shall suffice to enable the council to deliberate in valid form. Decisions are taken by a majority of votes.

"The council addresses each year to the signatory powers a report on the labors of the court, on the discharge of the administrative services, and on the expenditure.

"ART. XXX.—The costs of the bureau shall be borne by the signatory powers in the proportion fixed by the international bureau of the Universal Postal Union.

"OF ARBITRATION PROCEDURE.

"ART. XXXI.—The powers which accept arbitration will sign a special agreement or compromise, in which are clearly laid down the object of the dispute as well as the extent of the arbitrators' powers. This document shall confirm the undertaking of the parties to submit themselves in good faith to the arbitrators' decision.

"ART. XXXII.—The arbitral functions may be conferred on one single arbitrator, or on several arbitrators, named by the parties at their own discretion, or chosen by them among the members of the permanent arbitration court established by the present act.

"In the absence of a contrary agreement the formation of the tribunal of arbitration shall be proceeded with in the following manner:

"Each party shall name two arbitrators, and they shall choose together an umpire.

"In case of a division of votes, the choice of the umpire shall be intrusted to a third power, named in agreement by the parties.

"If an agreement is not come to on this subject, each party shall designate a different power, and the choice of the umpire shall be made in concert by the powers so designated.

"ART. XXXIII.—When the arbitrator is a sovereign or the chief of a state the arbitration pro-

cedure shall be exclusively settled by his high determination.

"ART. XXXIV.—The umpire is president *de jure* of the tribunal.

"When the tribunal does not include an umpire it shall itself name its president.

"ART. XXXV.—Except there be a stipulation to the contrary, in case of the decease or resignation of one of the arbitrators, or his inability from any cause whatever to act, the vacancy will be filled in accordance with the rules established for nomination.

"ART. XXXVI.—The seat of the tribunal is designated by the disputing parties, or, in default of such designation, by the tribunal of arbitration.

"The seat thus fixed upon can only be changed in consequence of a new agreement between the interested states or, in case of necessity, by decision of the tribunal itself.

"ART. XXXVII.—The disputing parties have the right to name to the tribunal delegates or special agents to serve as intermediaries between the tribunal and the litigating parties.

"They are, moreover, authorized to intrust the defense of their rights and interests before the tribunal to counsel or advocates named by them for that purpose.

"ART. XXXVIII.—The tribunal decides upon the choice of languages authorized to be employed before it.

"ART. XXXIX.—The arbitral procedure comprises as a general rule two phases—the phase of instruction and the phase of pleading.

"The first consists in the communication made by the agents of the disputing parties to the members of the tribunal and to the opposing party of all printed or written deeds and of all documents containing the cases of the parties.

"The second is oral, and consists in the hearing before the tribunal.

"ART. XL.—Every document produced by one of the parties must be communicated to the other party.

"ART. XLI.—The hearing before the tribunal is directed by the president.

"It is recorded in reports set forth by secretaries appointed by the president. These reports alone are to be regarded as authentic. The pleadings are to be public only if so decided by the court with the consent of the parties.

"ART. XLII.—The preliminary procedure being private and the debates being public, the tribunal has the right to refuse all new deeds or documents which the representatives of one of the parties wish to submit to it without the consent of the other.

"ART. XLIII.—The tribunal remains free to take into consideration new documents or proofs of which the agents or counsel of the disputing parties have made use in their arguments before it.

"It has the right to demand the production of these documents or proofs apart from the obligation of making them known to the opposite party.

"ART. XLIV.—The tribunal can, moreover, require from the agents of the parties the production of all the documents and explanations which it requires. In case of refusal the tribunal takes note of the fact.

"ART. XLV.—The agents and counsel of the litigating parties are authorized to present orally to the tribunal all the arguments they consider useful for the defense of their cause.

"ART. XLVI.—They have the right to raise objections or incidental points. The decisions of the tribunal upon these points settle the contro-

versy, and can not give rise to any further discussion.

"ART. XLVII.—The members of the tribunal have the right to ask questions of the agents and counsel of the disputing parties, and to demand from them explanations of doubtful points.

"Neither the questions put nor the observations made by the members of the tribunal in the course of the debates can be regarded as enunciations of the opinion of the tribunal in general or of its members in particular.

"ART. XLVIII.—The tribunal alone is authorized to settle its competence by the interpretation of the agreement to arbitrate as well as of other treaties which may be invoked in the matter, and by the application of the principles of international law.

"ART. XLIX.—The tribunal has the right to make rules of procedure for the direction of the arbitration, to settle the forms and periods within which each party will be obliged to finish its case, and to carry out all the formalities necessary for the receiving of evidence.

"ART. L.—The agents and counsel of the disputing parties having presented all explanations and evidence on behalf of their cause, the president of the tribunal announces the closing of the hearing.

"ART. LI.—The deliberations of the tribunal take place with closed doors.

"Every decision is taken by a majority of members of the tribunal.

"The refusal of a member to give his vote must be noted in the report.

"ART. LII.—The arbitral decision voted by a majority must state the reasons on which it is based. It is to be set down in writing and signed by all the members of the tribunal.

"Those of the members who are in a minority may, when signing, record their dissent.

"ART. LIII.—The arbitral decision is read out at a public sitting of the tribunal in the presence of the agents and counsel of the disputing parties or after they have been duly summoned.

"ART. LIV.—The arbitral decision, duly pronounced and notified to the agents of the disputing parties, definitely decides the question at issue, and closes the arbitration proceedings instituted by the agreement to arbitrate.

"ART. LV.—Except in the case of a contrary provision contained in the agreement to arbitrate, revision of the arbitral decision may be demanded of the tribunal which has given the decision, but only on the ground of the discovery of a new fact, which would have been of such a nature as to exercise a decisive influence on the judgment, and which at the moment of such judgment was unknown to the tribunal itself and to the parties.

"The procedure of revision can only be opened by a decision of the tribunal expressly declaring the existence of the new fact, possessing the character set forth in the preceding paragraph, and declaring that the demand is admissible on that ground.

"No demand for revision can be accepted three months after the notification of the decision.

"ART. LVI.—The arbitral decision is only obligatory on the parties who have concluded the agreement to arbitrate.

"When it is a question of the interpretation of a convention existing between a greater number of powers than those between which the difference at issue has arisen the disputing parties notify to the other powers who have signed the convention the agreement to arbitrate which they have made. Each of those powers has the right

to intervene in the proceedings. If one or more of them have availed themselves of this privilege, the interpretation contained in the judgment is equally obligatory on them also.

"ART. LVII.—Each party bears its own expenses and an equal share of the expenses of the tribunal, without prejudice to the penalties which may be imposed by the tribunal against one or another of the parties.

"ART. LVIII.—The present convention shall be ratified with the least possible delay and the ratifications deposited at The Hague. The officer is to draw up a *procès-verbal* of each ratification, a certified copy of which is to be sent by the intermediary of diplomacy to all the powers which have been represented at the conference.

"ART. LIX.—Nonsignatory powers which have been represented at the conference can adhere to the present convention. For this purpose they must make known their adhesion to the contracting powers by means of a written notification addressed to the Government of the Netherlands, and communicated by the latter to the other contracting powers.

"ART. LX.—The conditions on which powers which have not been represented at the conference can adhere to the present convention will form the object of a further agreement among the contracting powers.

"ART. LXI.—If it should occur that one of the high contracting powers denounce the present convention, such denunciation shall only take effect one year after notification made in writing to the Government of the Netherlands, and immediately communicated by the latter to all the other contracting powers. This denunciation only to affect the power which has given such notification."

The representatives of the United States desired to have the wording of the twenty-eighth article altered, so as to leave no implication of an obligation or pledge of the United States to intermediate or intervene in any way in international differences arising between European states, since that would contravene the principles of Washington and Monroe that have been adopted as the settled policy of the United States. The French representatives were so desirous of letting the phrase stand that the American delegates accepted it, expressing their reservation in the following declaration:

"The delegation of the United States of America, in signing the convention regulating the peaceable settlement of international conflicts as proposed by the International Peace Conference, makes the following declaration: Nothing contained in this convention shall be so construed as to require the United States of America to depart from its traditional policy of not entering upon, interfering with, or entangling itself in the political questions or internal administration of any foreign state. Nor shall anything contained in the said convention be construed to require a relinquishment by the United States of America of its traditional attitude toward purely American questions."

In signifying the adhesion of the Ottoman Government to the arbitration convention the Turkish delegation made the following declaration:

"1. It is formally understood that recourse to good offices, to mediation, to the commissions of inquiry, and to arbitration is purely optional, and can not in any case assume an obligatory character or degenerate into intervention.

"2. The Imperial Government will have to judge for itself as to the cases in which its interests allow of its admitting of those means, with-

out its abstention or refusal to have recourse thereto being considered by the signatory states as an unfriendly proceeding. Of course, none of the means referred to can be applied to questions of a domestic order."

The second convention adopted by the conference deals with the laws and customs of war on land. The signatory powers bind themselves to issue instructions to all their land forces to act in conformity with the articles of this convention. The articles only apply to the contracting powers. Powers not represented at the conference or not signatories of the convention can give in their adhesion by notifying the Government of the Netherlands. The convention, which replaces the code drawn up at the Brussels conference of 1874, runs as follow:

"SECTION I.—OF BELLIGERENTS.

"CHAPTER I.—OF THE QUALITY OF BELLIGERENT.

"ARTICLE I.—The laws, rights, and duties of war apply not only to the army, but also to the militia and corps of volunteers which combine the following conditions:

"1. Of having at their head some person responsible for his subordinates;

"2. Of having a fixed distinctive badge recognizable at a distance;

"3. Of carrying their arms openly; and

"4. Of conforming in their operations to the laws and customs of war. In countries where the militia or corps of volunteers constitute the whole or part of the army they are included in the designation army.

"ART. II.—The population of a nonoccupied territory which at the approach of the enemy spontaneously takes up arms to combat the invading troops without having had time to organize itself conformably to the first article shall be considered as belligerent, provided it respects the laws and customs of war.

"ART. III.—The armed forces of the belligerent parties may be composed of combatants and non-combatants. In the case of capture by the enemy both have the right to be treated as prisoners of war.

"CHAPTER II.—OF PRISONERS OF WAR.

"ART. IV.—Prisoners of war are in the power of the hostile government, but not of the individuals or corps which have captured them. They are to be treated with humanity. All their personal belongings excepting their arms, their horses, and military papers remain their property.

"ART. V.—Prisoners of war may be interned in a town, fortress, camp, or other place, with the obligation of not transgressing certain fixed boundaries; but they may only be imprisoned when that is an indispensable measure of precaution.

"ART. VI.—The state can employ prisoners of war for work according to their rank and their aptitudes. The work must not be excessive, and must have no relation with the operations of the war.

"The prisoners can be authorized to work for public administrations or individuals or on their own account.

"The work done for the state is to be paid on the scale applicable to the same work when done by soldiers of the national army.

"When the work is done for other public administrations or for private individuals, the terms

are regulated by agreement with the military authorities.

"The wages of the prisoners are to contribute to making their condition more pleasant, and the balance, after deducting the cost of their maintenance, is to be handed to them at the moment of their liberation.

"ART. VII.—The government in whose power prisoners of war have fallen has to support them.

"In default of a special agreement between the belligerent parties prisoners of war are to be treated as regards food, lodging, and clothing on the same footing as the troops of the government which has taken them captive.

"ART. VIII.—Prisoners of war shall be subject to the laws, regulations, and orders in force in the army of the state in whose power they are. Any act of insubordination will authorize the application of such rigorous measures as are necessary. Prisoners who escape but are recaptured before being able to rejoin their army, or before quitting the territory occupied by the army which has captured them, are liable to disciplinary penalties.

"Prisoners who, after having made good their escape, are again made prisoners are not liable to any penalty for their former flight.

"ART. IX.—Every prisoner of war is bound to declare, if questioned on the subject, his true name and rank, and make himself liable, if he contravenes this regulation, to a restriction of the privileges accorded to prisoners of war of his class.

"ART. X.—Prisoners of war can be liberated on parole, if the laws of their country permit it, and in such a case are obliged under the guarantee of their personal honor to fulfill scrupulously, both toward their own government and toward the government which has made them prisoners, the engagements they have entered on. Their own government, in such a case, is bound not to demand or accept of them any service contrary to the parole given.

"ART. XI.—A prisoner of war can not be compelled to accept liberty on parole; nor is the hostile government obliged to accede to the prisoner's request to be set at liberty on parole.

"ART. XII.—Every prisoner of war who has been liberated on parole and is then retaken while bearing arms against the government to which he has pledged his word of honor, or against its allies, loses the right to be treated as a prisoner of war, and may be surrendered to the tribunals.

"ART. XIII.—Individuals who follow an army without actually forming part of it, such as the correspondents and reporters of newspapers, sutlers, and contractors, who fall in the power of the enemy, and whom the latter thinks it advisable to detain, have the right to be treated as prisoners of war, provided they are furnished with a legitimation from the military authorities of the army they have been accompanying.

"ART. XIV.—An office of information relating to prisoners of war is to be established from the commencement of hostilities in each of the belligerent states, or, as the case may be, in neutral countries which have received the belligerents in their territory. This office, which has the duty of answering all questions addressed to it concerning prisoners, shall receive from the various competent sources all the indications necessary to enable it to individually identify each prisoner of war. It is to be kept informed of all internments and transfers of prisoners, as well as of all admissions to hospital and deaths. The information office also has the duty of collecting and bringing to one place all the objects of per-

sonal use, money, or letters, etc., found on fields of battle or left by prisoners who have died in hospitals or ambulances, and of transmitting them to the interested parties.

"ART. XV.—The societies of aid for prisoners of war, if regularly constituted in accordance with the law of their country with the object of acting as the agents of charity, are to receive every facility for effectively accomplishing their humane task on the part of the belligerents both for themselves and their duly accredited agents within the limits of military necessities and administrative regulations. The delegates of these societies may be admitted to distribute relief in the depots where prisoners are interned, as well as to the halting places of prisoners who are being sent back to their country, on obtaining personal permission from the military authorities, and on undertaking, in writing, to submit to all the disciplinary and police measures prescribed by them.

"ART. XVI.—The information offices are exempt from customs dues. Letters, checks, and money orders, as well as postal packets addressed to prisoners of war or dispatched by them, are to be post free, not only in the countries from and to which they are sent, but also in those they have to pass through. Gifts and help in kind destined for prisoners of war shall be admitted free of all customs or other dues, as well as of all transport rates on railways worked by the state.

"ART. XVII.—Officers who are prisoners may be paid such portion of their pay as becomes due to them in this situation according to the regulations of their country, their own government being responsible for repaying the amounts thus expended.

"ART. XVIII.—Prisoners of war are to be allowed all possible freedom for the exercise of their religion, including the right of attending their own particular services, provided always they conform to the disciplinary and police measures prescribed by the military authorities.

"ART. XIX.—The wills of prisoners of war are to be taken care of or drawn up on the same conditions as those of the soldiers of the national army. The same rules are also to be followed with regard to the documents testifying the decease, and to the burial of prisoners of war having regard to their rank and position.

"ART. XX.—After the conclusion of peace the repatriation of prisoners is to take place with the least possible delay.

"CHAPTER III.—OF THE SICK AND WOUNDED.

"ART. XXI.—The obligations of belligerents with regard to attendance on the sick and wounded are regulated by the Geneva convention of Aug. 22, 1864, excepting such modifications as may be introduced.

"SECTION II.—OF HOSTILITIES.

"CHAPTER I.—OF THE MEANS OF INJURING AN ENEMY, OF SIEGES AND BOMBARDMENTS.

"ART. XXII.—The right of belligerents as to the choice of means to injure an enemy is not unlimited.

"ART. XXIII.—Besides the prohibitions established by special conventions, it is more particularly forbidden—

"(a) To employ poison or poisoned arms.

"(b) To kill or wound treacherously individuals belonging to the hostile nation or army.

"(c) To kill or wound an enemy who, having laid down his arms, or having no means of defense, has surrendered at discretion.

"(d) To declare that no quarter will be given.

"(e) To employ arms, projectiles, or other objects of a nature to inflict unnecessary injury.

"(f) To make improper use of flags of truce, of the national flag or the ensigns or uniform of the enemy, or of the distinctive badges of the Geneva convention.

"(g) To destroy or seize hostile property except where such destruction or seizure is imperatively enjoined by the necessities of war.

"ART. XXIV.—Ruses of war and the employment of the means necessary to secure information about the enemy and about the conformation of the country are considered permissible.

"ART. XXV.—It is forbidden to attack or bombard undefended towns, villages, dwellings, or buildings.

"ART. XXVI.—The commander of an attacking force before commencing bombardment, except in the case of an attack by storm, must do all he can to warn the authorities.

"ART. XXVII.—In sieges and bombardments all the necessary measures ought to be taken for sparing as much as possible buildings devoted to worship, the arts, the sciences and benevolence, hospitals and places for assembling the sick and wounded, on condition that they be not employed at the same time for a military purpose. It is the duty of the besieged to distinguish these buildings or places of assembly by special visible signs, which shall be notified beforehand to the besieging party.

"ART. XXVIII.—It is forbidden to give up to pillage even a town or locality taken by assault.

"CHAPTER II.—OF SPIES.

"ART. XXIX.—Only the individual who, acting clandestinely or under false pretenses, gathers or seeks to gather information in the zone of operations of a belligerent, with the intention of communicating it to the opposing side, can be considered a spy.

"Thus soldiers not disguised who have gone within the zone of operations of the enemy's army in order to gather information are not to be considered spies. Similarly, the following are not to be considered spies: Soldiers and civilians who have been intrusted with the duty of taking dispatches, whether intended for their own army or for the army of the enemy, and are fulfilling their mission openly. To this category belong equally persons sent in a balloon to take dispatches, and, in general, to maintain communications between the different parts of an army or a territory.

"ART. XXX.—It shall not be possible to punish untried a spy taken in the act.

"ART. XXXI.—A spy who having rejoined the army to which he belongs is captured later by the enemy is to be treated like a prisoner of war, and incurs no responsibility for his previous acts of espionage.

"CHAPTER III.—OF BEARERS OF FLAGS OF TRUCE.

"ART. XXXII.—The individual is considered the bearer of a flag of truce who is authorized by one of the belligerents to enter into negotiations with the other, and who presents himself with the white flag. He has the right of inviolability, just as have the trumpeter, bugler, or drummer, the flag bearer, and the interpreter who accompany him.

"ART. XXXIII.—The commander to whom the bearer of a flag of truce is dispatched is not obliged to receive him in all circumstances.

"He can take all the measures necessary to hinder the bearer of a flag of truce from profiting by his mission to gain information.

"He has the right, in case of abuse of privileges, to detain the bearer of a flag of truce temporarily.

"ART. XXXIV.—The bearer of a flag of truce loses his rights of inviolability if it is proved, in a positive and undeniable manner, that he has profited by his privileged position to provoke or to commit an act of treason.

"CHAPTER IV.—OF CAPITULATIONS.

"ART. XXXV.—Capitulations agreed upon between the contracting parties ought to take into account the rules of military honor.

"Once settled, they ought to be scrupulously observed by the two parties.

"CHAPTER V.—OF THE ARMISTICE.

"ART. XXXVI.—An armistice suspends the operations of war by a mutual agreement of the belligerent parties. If its duration has not been fixed, the belligerent parties can resume operations at any time, provided always that the enemy be warned within a time agreed upon, in conformity with the conditions of the armistice.

"ART. XXXVII.—An armistice may be general or local—the former suspends everywhere the operations of war of the belligerent states; the latter only between certain divisions of the belligerent armies and within a defined radius.

"ART. XXXVIII.—The armistice must be notified officially, and within time to be of use, to the competent authorities and the troops. The hostilities are suspended immediately after the notification or at a fixed period.

"ART. XXXIX.—It depends on the contracting parties to settle, in the clauses of the armistice, the relations which should obtain on the theater of war with the populations and between themselves.

"ART. XL.—Every serious violation of the armistice by one of the parties gives to the other the right of denouncing it, and even, in an urgent case, of resuming hostilities immediately.

"ART. XLI.—The violation of the clauses of the armistice by individuals acting on their own initiative gives only a right to demand the punishment of the guilty persons, and an indemnity for proved losses if there have been any.

"SECTION III.—OF MILITARY AUTHORITY ON THE TERRITORY OF THE HOSTILE STATE.

"ART. XLII.—A territory is considered occupied when it is placed actually under the authority of the enemy's army.

"The occupation only extends to those territories where that authority is established and in a position to be exercised.

"ART. XLIII.—The authority of legal power having actually passed into the hands of the occupying state, that state shall take all the measures which depend on it in order to re-establish and to assure as much as possible public life and order, while respecting, unless it is absolutely prevented from doing so, the laws in force in the country.

"ART. XLIV.—It is forbidden to force the population of an occupied territory to take part in military operations against their own country.

"ART. XLV.—It is forbidden to compel the population of an occupied territory to take an oath of allegiance to the hostile power.

"ART. XLVI.—The honor and the rights of the family, the life of individuals, and private prop-

erty, as well as religious convictions and the performance of worship, ought to be respected.

"Private property can not be confiscated.

"ART. XLVII.—Pillage is formally forbidden.

"ART. XLVIII.—If the occupying power levies in the occupied territory the taxes, rights, and tolls established for the profit of the state, it shall do so as much as possible according to the rules of the assessment and apportionment in force, and on it therefore will also rest the obligation to provide for the expenses of the administration of the occupied territory to the same extent to which the legal government was bound in that respect.

"ART. XLIX.—If, apart from the taxes referred to in the preceding article, the occupying power levies other contributions in money in the occupied territory, it shall only be for the needs of the army or for the administration of this territory.

"ART. L.—No collective penalty, pecuniary or other, shall be proclaimed against the populations by reason of individual acts of which they could not be considered responsible in the mass.

"ART. LI.—No contribution shall be collected except in virtue of a written order and under the responsibility of a general in chief.

"This collection shall only be proceeded with, as far as possible, according to the rules of the assessment and apportionment of the taxes in force.

"For every contribution a receipt shall be delivered to the contributors.

"ART. LII.—Requisitions in kind and of services shall only be demanded of communes or of inhabitants for the needs of the army of occupation. They shall be in accordance with the resources of the country, and of such a nature as not to imply on the part of the populations the obligation to take part in the operations of the war against their country.

"These requisitions and these services shall only be demanded with the authorization of the commandant in the occupied locality.

"Levies in kind shall, as far as possible, be paid for in cash; if not, they shall be certified by receipts.

"ART. LIII.—The army which occupies a territory shall only seize the specie, the funds, and the realizable securities belonging to the state in its own right, the depots of arms, means of transport, magazines, and victualing, and, in general, all movable property of the state of such a kind as to subserve the operations of war.

"The plant of railways, land telegraphs (including cables at the landing points), telephones, steamships and other vessels, apart from cases governed by maritime law, as well as depots of arms and, in general, every kind of munitions of war, even belonging to companies or private persons, are equally means of a kind to subserve the operations of war; but they ought to be given back and the indemnities for their use shall be adjusted at the conclusion of peace.

"ART. LIV.—The plant of railways coming from neutral states, which belongs to those states or to companies or private persons, shall be sent back to them as soon as possible.

"ART. LV.—The occupying state shall consider itself only as the administrator and usufructuary of public buildings, landed property, forest, and agricultural estates belonging to the hostile state and situate in the occupied country. It shall be bound to safeguard the substance of these properties and to administer them in conformity with the rules of usufruct.

"ART. LVI.—The property of local bodies, that

of establishments devoted to worship, to charity, and to teaching, to the arts and sciences, even when belonging to the state, shall be treated as private property.

"Every intentional seizure, destruction, or degradation of establishments of this kind, of historic monuments, of works of art and science, is forbidden and ought to be prosecuted.

"SECTION IV.—OF BELLIGERENTS CONFINED AND WOUNDED CARED FOR AMONG NEUTRALS.

"ART. LVII.—The neutral state which receives on its territory troops belonging to the belligerent armies shall confine them, as far as possible, at a distance from the theater of war.

"It shall keep them in camps, and even shut them up in fortresses or in places appropriated to this object.

"It shall decide if the officers can be set free while giving their parole not to leave the neutral territory without permission.

"ART. LVIII.—In default of special convention, the neutral state shall furnish to the confined persons the victuals, clothes, and relief enjoined by humanity.

"Allowance shall be made, when peace is restored, for the expenses occasioned by their confinement.

"ART. LIX.—The neutral state shall authorize the passage on its territory of wounded or sick persons belonging to the belligerent armies, under the stipulation that the trains bringing them shall not carry either men or equipment of war. In like case the neutral state is bound to take the measures of safety and control necessary to secure this object.

"The wounded or sick persons who are brought under these conditions on to the neutral territory by one of the belligerents, and who belong to the opposing side, shall be kept by the neutral state in such a manner that they shall not be able to take part afresh in the operations of war. The neutral state shall have the same duties as regards the wounded or sick persons of the other army who may be intrusted to it.

"ART. LX.—The Geneva convention applies to sick and wounded persons confined on neutral territory."

The convention extending the provisions of the Geneva convention of 1864 to naval warfare was, like the convention given above amending and supplementing the Brussels declaration of 1874, the task of a subcommission, which adopted with few alterations a scheme submitted by Prof. Louis Renault, the French member. The draft convention adopted at Geneva in 1868 provided in substance that hospital ships, merchantmen with wounded on board, and boats picking up wounded and wrecked men shall be neutral; that they should carry the Red Cross flag and their crews the Red Cross armband; that hospital ships belonging to a government should be painted white with a green streak, and those of aid societies white with a red streak; and that in naval warfare if any strong presumption arises that the convention was being abused for belligerent purposes the power having presumptive evidence of such abuse would have the right to suspend the convention toward the suspected power until the contrary is proved, and if the presumption becomes a certainty of suspending it till the end of the war. These provisions, with the exception of the last, were incorporated in the convention contained in the final act of the conference. Hospital ships were divided into three classes: 1.

Military hospital ships—that is, ships built and fitted out by states specially and solely for the purpose of carrying aid to wounded, sick, and shipwrecked persons. 2. Hospital ships equipped entirely or in part at the cost of private individuals or of relief societies officially recognized by a belligerent government. 3. Hospital ships fitted out entirely or in part at the cost of private persons or of officially recognized societies belonging to neutral countries. All three classes are neutralized—that is, are to be respected and exempted from capture, provided the names of the vessels have been communicated to the belligerent powers before they are employed; and in the case of the second and third classes, provided the belligerent power to which they are attached has given them an official commission and has notified their names to the other belligerent power, as in the case of the first class. All three classes are expected and required to take relief and assistance to the wounded, sick, and shipwrecked without distinction of nationality. The hospital ships of any of the three classes are not to impede in any way the movements of the combatants. During and after a battle they will act at their own risk and peril. Either belligerent shall possess the right of controlling and visiting the ships, and shall be able to reject their aid, order them away, oblige them to take a given direction, put a commissioner on board, and even detain them should the gravity of the situation require it. Trading vessels, yachts, or neutral boats carrying the wounded, sick, or shipwrecked men of the belligerents may not be captured on account of this transportation, but they will be liable to be captured if they commit any violation of their neutrality. An article providing for the internment of sick, wounded, and shipwrecked men landed at a neutral port was only carried after much discussion. The rules are only binding on the contracting powers in case of war between two or more of them, and they cease to be binding from the moment when in a war between several of the contracting powers a non-contracting power joins one of the belligerents. The convention was to be ratified with the least possible delay, and the ratifications were to be deposited at The Hague and certified copies sent to all the powers represented at the conference. Powers not signing the convention, but being signatories of the Geneva convention of 1864, could give in their adhesion at any subsequent time by notifying the Government of the Netherlands, which would communicate the notification to all the other contracting governments. The convention remains in force until denounced, and this must be done in a written notification to the Netherlands Government, which will instruct the other governments. The denunciation shall only take effect one year after notification, and only affect the notifying power.

A Dutch resolution, supported by Russia, to extend the St. Petersburg declaration of 1868 against explosive bullets, so as to prohibit also the use of bullets that expand in the human body, such as jacketed bullets with a part of the core exposed, was directed against the dum-dum bullet employed by the British in fighting the Pathans in India and the dervishes in the Soudan. The description covers also the latest service bullet adopted for the British army. The British military delegate denied that even the dum-dum bullet inflicted a cruel wound, saying that it was not equal in stopping power to the Martini bullet. Capt. Crozier, of the United States delegation, showed how easily bullets could be devised that would inflict more tearing wounds, and yet not

come within the prohibited classes. He therefore offered an amendment, by which the use of bullets which inflict wounds of useless cruelty, such as explosive bullets, and in general any kind of bullet which exceeds the limit necessary for placing a man immediately *hors de combat*, would be forbidden. The resolution was carried in its original form. Another, forbidding the dropping of explosives from balloons, and one against filling shells with asphyxiating gases, were opposed by Capt. Mahan, a United States delegate, who asked why submarine torpedo boats should not be prohibited, as they were intended to be far more destructive of human life than such devices could be, and to cause asphyxiation by water. The prohibition of submarine torpedo boats was one of the specified subjects in the original Russian programme. It was strongly opposed by France, whose engineers have applied themselves especially to the invention of boats of that kind; and when the conference decided against the prohibition, the vote of Russia was given also in favor of the French contention. The other resolutions were carried and were embodied in declarations, separate from the conventions, as follow:

"DECLARATION I.—The undersigned, as plenipotentiary delegates at the International Peace Conference, duly authorized by their governments to this effect, inspired by the sentiments which found expression in the declaration of St. Petersburg of Dec. 11, 1868, and taking in consideration the final clause of that declaration, hereby declare that the contracting parties prohibit themselves, for a period of five years, from throwing projectiles or explosives from balloons or by other new analogous means.

"DECLARATION II.—The undersigned, as plenipotentiary delegates, hereby declare that the contracting parties prohibit themselves from making use of projectiles whose sole object is to diffuse asphyxiating or deleterious gases.

"DECLARATION III.—The undersigned, as plenipotentiary delegates, hereby declare that the contracting parties prohibit themselves from making use of bullets which expand or flatten easily in the human body, as, for instance, bullets with a hard case which case does not cover the whole of the inclosed mass or contains incisions."

Suggestions in the original Russian programme which were not adopted by the conference, but were platonically approved, were made the subject of pious aspirations, including also the American proposal to exempt maritime commerce from seizure. These pious wishes were expressed in a series of resolutions referring to future conferences such subjects as these, on which this conference was deterred by political motives from coming to a decision:

"I. The conference considers that the limitation of the military charges at the present time weighing upon the world is greatly to be desired for the increase of the material and moral welfare of humanity.

"II. The conference expresses the wish that the question of the rights and duties of neutrals should be inscribed on the programme of a conference to be held at an early date.

"III. The conference expresses the opinion that questions relative to the type and the caliber of rifles and naval artillery such as have been examined by it should be the subject of study by the different governments with a view to arriving eventually at a uniform solution by means of a further conference.

"IV. The conference, taking into consideration the preliminary steps taken by the Swiss Federal

Government for the revision of the Geneva convention, expresses the wish that a special conference be shortly convened for the purpose of revising this convention.

"V. The conference has resolved unanimously, with the exception of a few abstentions, that the following questions should be reserved for examination by future conferences: (1) A proposal tending to declare the inviolability of private property in war at sea; (2) a proposal regulating the question of the bombardment of ports, towns, and villages by a naval force."

The following additional protocol, fixing the conditions of adhesion, was appended to the final act:

"Considering that a certain number of the governments represented at the Peace Conference have not yet found themselves able to sign the conventions and declarations, the text of which has been fixed by the conference, the undersigned, as plenipotentiary delegates, at the moment of proceeding to sign the final act have agreed as follow: The conventions and declarations, the text of which is annexed to the final act, can be signed by the governments represented at the conference either at once or at a future date, but at the latest by Dec. 31, 1899. After Dec. 31, 1899, adhesion to the conventions can be made in conformity with the final dispositions of the aforesaid conventions. Adhesion to the declarations can be made by means of a notification addressed to the Government of the Netherlands, and communicated by it to all the governments who have signed the declaration."

The Peace Conference ended its labors and separated on July 29. The final act was signed by all of the 26 powers represented. The convention on arbitration was signed immediately by 16 powers, but Germany, Austria-Hungary, China, Great Britain, Italy, Japan, Luxembourg, Servia, Switzerland, and Turkey withheld their signatures in order to study its provisions more carefully. The same states abstained from signing the convention on the laws of war and the convention adapting the principles of the Geneva convention to maritime warfare, and were joined by Portugal. The declaration interdicting balloon projectiles was signed by all the states that gave their adhesion to arbitration and by Turkey. The same powers, with the exception of the United States, signed the declaration concerning the prohibition of projectiles containing asphyxiating gases. The declaration concerning the interdiction of expanding bullets was signed by the same states without Portugal.

The Dutch East Indies.—The total area of the Dutch possessions in the East Indies is estimated at 736,400 square miles, and the population at 34,000,000. The island of Java, the principal one, contains, with the adjacent island of Madura, 25,697,701 inhabitants, as estimated at the end of 1897, on an area of 50,554 square miles. The estimate for the island of Sumatra is 3,209,037 inhabitants, on an area of 161,612 square miles. The island of Celebes has an area of 71,470 square miles, with 1,997,860 inhabitants. The Riau-Lingga Archipelago has 107,861 inhabitants, area 16,301 square miles; Banca, 93,600 inhabitants, area 4,446 square miles; Billiton, 41,558 inhabitants, area 1,863 square miles; Molucca Islands, 309,208 inhabitants, area 43,864 square miles; Timor Archipelago, 119,230 inhabitants, area 17,698 square miles; Bali and Lombok, 1,044,757 inhabitants, area 4,065 square miles; Borneo, 1,180,578 inhabitants, area 212,737 square miles; Dutch New Guinea, extending to 141° of east longitude, about 200,000 inhabitants, area 151,789

square miles. The number of Europeans and persons assimilated to them in 1896 was 67,156, of whom 35,134 were males and 32,022 females. Of the males 29,666 were Dutch, of whom 23,295 were born in the East Indies; of the females 25,389 were Dutch, 22,435 of them born in the East Indies. There were 1,183 Germans, 243 French, 236 English, and 236 Belgians, and the others were Swiss, Austrians, Armenians, etc. The Chinese numbered 460,000; Arabs, 24,000; other Orientals, 27,000. The number of Christians among the natives and foreign Orientals was 19,193 in Java and 290,065 in the other possessions. In March, 1899, the ordinances were revised by the vote of the States General so as to place Japanese in the Dutch East Indies on the same footing as Europeans.

The revenue in 1898 amounted to 139,412,904 guilders, and expenditure to 154,519,438 guilders, leaving a deficit for the year of 15,106,534 guilders. Of the receipts 36.3 per cent. came from taxation, 24.1 per cent. from monopolies, 22.4 per cent. from sales of products, and 17.2 per cent. from other sources. The budget for 1899 makes the revenue 132,742,514 guilders and the expenditure 146,085,944 guilders, leaving a deficit of 13,343,430 guilders. Of the revenue 7,543,168 guilders come from sales of Government coffee in the Netherlands and 6,626,600 guilders from sales in India, 148,500 guilders from sales of cinchona and 7,164,729 guilders from sales of tin in the Netherlands, 470,000 guilders from the profits of the Billiton company, 925,000 guilders from railroads in the Netherlands and 10,975,000 guilders from railroads in Java, 8,807,000 guilders from sales of salt, 18,860,000 guilders from sales of opium, 17,211,500 guilders from import, export, and excise duties, 19,806,100 guilders from land revenues, 824,567 guilders from other sources in the Netherlands, and 33,380,350 guilders from other sources in India.

The area planted to rice in Java and Madura was 4,828,642 acres in 1896; to maize, arachis, cotton, and various crops, 3,595,226 acres; to sugar cane, 213,349 acres; to tobacco, 258,930 acres; to indigo, 54,252 acres. The production of coffee in 1896 was 42,164,666 pounds by the Government, 10,663,066 pounds by free cultivation, 58,309,333 pounds on leased Government lands, and 4,928,000 pounds on private properties. The production of cinchona was 293,603 kilogrammes by the Government, 3,440,393 kilogrammes on leased lands, and 63,932 kilogrammes on private lands. The production of tobacco was 13,360,013 kilogrammes in Java and 15,704,703 kilogrammes in Sumatra. The production of tea in Java was 3,916,398 kilogrammes; of indigo, 721,719 kilogrammes. The production of sugar in 1896 was 501,122 tons, and in 1897 it was 548,750 tons. The farm animals in Java at the beginning of 1896 were 2,643,000 buffaloes and 2,572,000 oxen and cows. The quantity of tin produced in 1896 was 15,000 tons; of mineral oil, 111,387,385 litres. The Government imports of merchandise in 1896 amounted to 6,746,332 guilders and of specie to 615,000, private imports of merchandise to 152,055,300 guilders and of specie to 8,932,001 guilders; total value of imports, 168,348,633 guilders. The Government exports of merchandise were 14,325,256 guilders; private exports of merchandise were 184,413,534 guilders and of specie 891,921 guilders; total value of exports, 199,630,711 guilders.

There were entered during 1896 at the ports of the Dutch East Indies 213 sailing vessels, of 133,812 tons, and 3,692 steamers, of 1,469,808 tons. The length of railroads open at the beginning

of 1897 was 1,112 miles. The receipts in 1896 were 14,048,230 guilders. The telegraphs in East India had a total length of 6,899 miles. The number of dispatches in 1896 was 638,388. Telephone lines connected Batavia, the capital, with Samarang and Soerabaya, the other large cities.

The most determined and formidable of the rebel chiefs in Acheen, and almost the last to hold out, Tokoe Oemar, was fatally wounded in a skirmish on Feb. 10, 1899, at Malabuh, on the west coast. He and his party were surprised by an ambuscade prepared by a lieutenant with a detachment of Dutch troops. The Acheenese, who greatly outnumbered the soldiers, fled after a sharp fight, losing 16 killed, while the leader of the Dutch troops was wounded and 2 soldiers were killed. Gen. Van Heutz, who was operating with a column from Tenom, after this received the submission of many of the chiefs. Tokoe Oemar's force dispersed. That crafty and influential chief was once the pretended ally of the Dutch, and for a long time received subsidies and arms for fighting their enemies, which he employed secretly to fight the Dutch themselves. When found out at last he resisted with great energy and ability the expeditions sent against him by the Dutch Government, which resolved to end once and for all the interminable Acheenese war. Jonkheer van der Wyck, the Governor General, followed up this policy with energy, on the principle that an immediate sacrifice of men and treasure in active operations would prove more economical than the prolonged retention of garrisons in unhealthy posts. Gen. Van Heutz proved himself equal to the task of carrying on a harassing guerrilla war in a difficult mountainous country, covered with forest and jungle and to a great extent unexplored, against brave and skillful enemies, who were well supplied with arms and ammunition by English and American traders, the Dutch blockade of the extended coast proving inefficient. Nearly every expedition proved successful, yet Tokoe Oemar, the leading spirit of the rebellion, always slipped through, to reappear with another army in a remote district. Except for him the resources and the spirit of the rebellion that has lasted twenty years were exhausted long before his death. Disturbances almost ceased, and the Dutch garrison was reduced to its former strength. On the coast Dutch influence continued to increase.

Colonies.—In America the Dutch have the colonies of Curaçoa (see WEST INDIES) and Surinam, or Dutch Guiana. The area of Surinam is 46,060 square miles. The population in 1897 was 64,372, exclusive of the negroes of the forests. The Governor is assisted by a council of four members, and for purposes of legislation by the Colonial States, which is partly appointed and partly elected by the people. The revenue in 1898 was 2,348,000 guilders, of which 2,141,000 were raised in the colony and 207,000 contributed by the home Government. The imports in 1897 were valued at 5,635,161 guilders, and exports at 5,241,671 guilders. The number of vessels entered during that year was 248, of 107,153 tons; cleared, 253, of 108,988 tons.

NEVADA, a Western State, admitted to the Union Oct. 31, 1864; area, 110,700 square miles. The population, according to each decennial census since admission, was 42,491 in 1870, 62,266 in 1880, and 45,761 in 1890. Capital, Carson City.

Government.—The following were the State officers in 1899: Governor, Reinhold Sadler; Lieutenant Governor, James R. Judge; Secretary of State, Eugene Howell; Treasurer, D. M. Ryan;

Comptroller, Samuel P. Davis; Attorney-General, William D. Jones; Surveyor General, Edward D. Kelley; Superintendent of Instruction, Orvis Ring; Adjutant General, J. R. Judge, *ex officio*—all of the Silver party except Superintendent Ring, who is a Republican; Chief Justice of the Supreme Court, M. S. Bonnifield; Associate Justices, W. A. Massey, C. H. Belknap; Clerk *ex officio*, Eugene Howell—all of the Silver party.

Finances.—The valuation placed on Nevada assets by assessors in the State is about \$25,000,000. The tax levy throughout the State averages 3.8 per cent. The State Board advises the raising of the assessed valuation to \$75,000,000.

Education.—The school population in 1898 was 8,996. The expenditures for the schools amounted to \$203,339.93. The apportionment of State school moneys for 1899 was \$119,844.88. The State University, by the last report at hand, had 366 students. It has an endowment of \$128,600. The expenses for the last biennial term were \$88,980.63.

Public Lands.—Applications were made in 1897 and 1898 for 111,451 acres of State lands. The vacant public land of Nevada amounts to about 61,358,000 acres, or very nearly seven eighths of the total area—a larger proportion than in any other State, according to the Department of Agriculture. There are in addition nearly 6,000,000 acres reserved for settlement. Of the 3,000,000 acres or less no longer in the hands of the National Government by far the greater part is included in a 2,000,000-acre grant to the State for the support of common schools and in minor grants for various other purposes. The amount taken up by individuals is therefore very small in proportion to the State's surface, and it is scattered in small tracts along the borders of streams, the only considerable areas being in the western corner of the State, near Lake Tahoe. The vacant public land is described in the General Land Office report as arid, mountainous grazing land, with little or no timber, but it appears to include also the greater part of the numerous small valleys between the mountain ranges. The last annual report of the Surveyor General places the area of unselected land remaining from the 2,000,000-acre grant mentioned above at 57,242 acres, and to this is to be added 732,884 acres to which the State is still entitled, leaving an area of nearly 800,000 acres still open to entry.

Mining.—The value of the gold, silver, copper, and lead produced in 1898 was given as \$3,595,542; the gold alone, \$2,799,785, though the estimate of the director of the mint was about \$160,000 more. In 1899 it was \$2,742,000.

The deposits of copper are in process of rapid development.

Among other minerals found in the State and attracting recent attention are manganese, found in nearly every mining district in the State; silicon, found in the chalk hills northeast of Virginia City; gypsum, of which the Nevada deposits are of superior quality; and kaolin.

The following in regard to the utilization of the drainage of the Sutro Tunnel was published in September: "The Sutro Tunnel discharges a vast volume of water into Carson valley, for it embraces not only the drainage of the Comstock by gravitation to the tunnel's level, but also the water used by two hydraulic pumps under a pressure of nearly 2,000 feet and the drainage of the lower levels which these pumps lift. This big stream emerges from the mouth of the tunnel at an elevation of about 150 feet above the floor of Carson valley. So far, the power represented in the descent of so much water has gone

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grow and prosper, but that we may, in your interests and for the good of our land, have a greater incentive to renewed and increased efforts. We have honestly and faithfully conserved the public resources, and in our expenditures have been guided by the needs of the people consistent with a strict regard to economy. Other provinces may be more wisely governed, but none more economically."

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over half a million dollars for building what they call permanent bridges. For the superstructure of all those bridges built within the last five years, so far as can be ascertained, Mr. Emmer-son, without competition or tender, has paid two prices, and in some cases even more. The province should have two bridges where there is but one. It would have been far better in the public interest to have paid a fair price and have two bridges than two prices and have but one bridge. The application of ordinary business principles would have saved large sums of money.

"All fines derived from civic and county officers, and from licenses after paying necessary salaries and expenses, should go to the funds of the municipality. The reckless extravagance of the Government has forced direct taxation upon us, and in seizing those sources of revenue, always before held by the municipalities, the burden of taxation upon them has been still further increased. The Government has no right to take from the municipalities fines properly belonging to them.

"We need cold-storage facilities to enable our farmers to hold their farm produce for the highest markets. We can produce excellent butter and cheese. These industries should be given every encouragement. Pork packing should become a great industry. The great majority of our farmers could raise pigs for that purpose without very great labor or expense.

"The lumber industry is growing in importance every year. The introduction of pulp mills increases the value of our forest wealth. Measures should be taken to prevent unnecessary destruction of our forests, and the labor required to fit the raw material for the foreign market should as far as possible be done within the province.

"Our fisheries need careful attention. The recent judgment of the Privy Council gives to the province larger rights in the fisheries than it was supposed we had. The extent of those rights it is not necessary now to consider. But great care and wise legislation are required to obtain from our fisheries the largest benefit for all of our people."

The result was singularly disastrous to Mr. Stockton, and gratifying to the Government. The latter swept the province, winning 42 seats and leaving the Opposition 4 seats. Mr. Stockton himself was defeated for the Assembly. When the Legislature met, March 22, it was opened by Lieut.-Gov. A. R. McClellan with a speech from the throne, of which the following paragraphs are the most important:

"The interesting character of the exhibit made by this province at the Sportsmen's Show, held in Boston in March last, did so much to bring to the notice of the people of this continent the unrivaled opportunities which we offer to the sportsman and tourist, and was in all respects so promotive of good results that the expectations of my Government in undertaking this display were, I am pleased to say, more than realized.

"The awakened interest which I am glad to note is being taken in the mineral resources of our province has encouraged my Government to take further steps to secure the prospecting and development of the heretofore dormant wealth of our country's undeveloped resources, and a measure having this object in view will be submitted for your consideration.

"The efforts already put forth by my Government in the past to stimulate and advance the agricultural interests of New Brunswick have been fraught with such favorable results that

further advances in this same direction are deemed desirable, and there will be presented to you propositions to develop and promote that branch of animal husbandry known as pork raising, with a view to the promotion of pork-packing establishments in our midst, thus enabling us as a province to compete more successfully with other provinces and states in the markets of Great Britain and other countries.

"The pronounced success which has attended the efforts of my Government to advance the cheese industry has encouraged them to make additional strenuous efforts to induce the manufacture of creamery butter throughout the province during the whole year. To this end there has been erected a model creamery and butter-making establishment at Sussex, which is now in successful operation, and has so fully demonstrated the fact that butter of the best grade can be advantageously made in the province at all seasons that the Government confidently anticipate that similar industries will be established as the result of private enterprise at all suitable points; already one such industry has been started at Woodstock. This establishment at Sussex has incidentally enabled the Government to provide the very best facilities for a provincial dairy school.

"The desirability of encouraging the settlement of our public lands by our own people and by suitable emigrants from other lands has been recognized in the past by the Government, and I feel assured that there is no abatement of that desire upon the part of the present Legislature and the people generally. The authority given at their last session has been acted upon, with results that promise favorably, but it is realized that if we are to encourage any appreciable flow of desirable settlers from the old lands it will be necessary to have more and better information, in succinct form, as to the natural features and varied resources of our whole province, and of its facilities for every branch of industry than has heretofore existed, with a view to its judicious dissemination and distribution among the people of Great Britain and other European countries.

"You will be asked to make provision for the introduction of modern road machinery, so as to demonstrate to the people as far as possible its utility in making and maintaining proper roadways.

"The recent decision of the Judicial Committee of the imperial Privy Council, dealing with the subject of the fisheries, and the respective rights therein of the provinces and Dominion, confirms the claim made by the provinces to valuable and extensive fishing rights over which the Dominion Government has hitherto assumed the exclusive property and control, and define more fully than had before been done the respective jurisdictions of the federal and local governments over the subject-matter of the fisheries, at the same time leaving unimpaired the duty cast upon the Dominion to foster and protect all fisheries. A committee of my Government early in the year held a conference on the matter with a committee of the Federal Government, and their report will be submitted to you, from which it will appear that the Department of Marine and Fisheries claims that, while the judgment of the Privy Council is explicit upon most points, it still, unfortunately, leaves open to question the claim of the province to proprietary rights in those shore fisheries located within the three-mile limit and below low-water mark.

"The unprecedentedly high price realized from

the sale of provincial 3-per-cent. bonds issued in February, 1898, to redeem outstanding debentures then maturing, was most satisfactory, demonstrating, as it did, the very excellent standing of the province in financial circles. Since then my Government has effected the sale of 3-per-cent. bonds at par. A measure will be submitted to you giving authority to redeem from time to time, as they mature, bonds bearing a rate of interest above 3 per cent. by other bonds to be issued at a rate not exceeding 3 per cent."

J. D. Hazen, Q.C., was elected leader of the Opposition, and George F. Hill Speaker of the House. Mr. Hazen announced the Conservative provincial policy as follows: Secret ballot in provincial elections; tender and public competition for Government contracts; independence of the Auditor General, as at Ottawa; abolition of the office of Solicitor General; decreased number of members in the House, with single-member constituencies; special steps for the preservation of forests.

On April 12 a debate took place on the question of woman suffrage, and Premier Emmerson introduced the following resolution, which was lost by a vote of 7 to 34:

"Resolved, That in the opinion of this House the time is now ripe for the enactment of a law providing that the rights of citizenship shall not be denied or abridged on account of sex, but that full franchise shall be granted to the women of this province on the same terms as to the men."

A few days later an Opposition motion in favor of an absolutely secret ballot was voted down, and on April 24 a resolution asking the Dominion Government to assume control of the Canadian Eastern Railway and incorporate it with the Intercolonial was carried unanimously. The Government also introduced useful legislation regarding provincial fairs and agricultural matters generally. But the legislation effected, as a whole, was not of material importance.

Finances.—On April 13 L. J. Tweedie, provincial Treasurer, reviewed the finances of the preceding year, and the following extracts may be given from his speech:

"The largest item of receipt, of course, was the Dominion subsidies, which last year amounted to \$483,510.36. Territorial revenue came next. It was hard to estimate this item, owing to the uncertainty of the lumber cut, or the amount derived from the annual sale of licenses. Last year he had estimated for territorial revenue, including stumpage and sales of licenses, mining receipts and game returns, \$155,000, whereas the amount actually returned was \$155,959.63. The same observation might be made in regard to fees in the provincial Secretary's office, which vary greatly from year to year. The succession duties of course depend upon the number of deaths and the value of the estates. Last year the Government estimated something more than they got from this source, because several estates were included which had not yet been settled for.

"In his estimate of income last year he had predicted a balance over the expenditure of \$6,038.52. He regretted that that had not been verified on account of a shortage of revenue and some other expenditures, which he would explain in detail. The fact was that there had been about \$14,000 of overexpenditure. A great deal of criticism was often made upon the fact that over-expenditures were made, but, as he had already said, it was not possible to estimate some of these items closely, and an overexpenditure was no more evidence of mismanagement than an under-expenditure would be. Last year the territorial

revenue had fallen short of the expectation by \$3,040.37. The revision of the statutes had cost \$1,479.48, or \$2,052 less than the estimate. Unforeseen expenses, placed at \$2,000, had amounted to \$1,032.25. The total expenditure had been for the year \$727,049.75, as contrasted with the estimate of \$712,991.98, an excess of \$14,057.77."

Commerce and Navigation.—The decline in the registered tonnage of the province continued during 1898, the drop being more than 14,000 tons. The comparative statement of vessels and tonnage for 1897-'98 shows that in the former year the number was 913 and the tonnage 104,028, while in the latter the figures were 903 and 89,976 respectively. The loss in St. John vessels during the year, from the standpoint of value, was much greater than usual. The total value was \$305,000, compared with \$171,000 in 1897, \$118,420 in 1896, and \$102,050 in 1895. The vessels lost in 1898 numbered 25, of 9,771 tons, against 16 vessels, of 9,466 tons, in 1897, 23 vessels, of 6,748 tons, in 1896, and 15 vessels, of 10,150 tons, in 1895.

The exports from the port of St. John for 1898 were valued at \$6,830,429, against \$6,256,659 in 1897. The imports were \$3,333,446, against \$3,444,338. Of the exports, products of the forest were nearly \$3,000,000, and agricultural products \$2,318,000.

Education.—On June 30, 1898, there were 1,778 public schools in the province, with 1,864 teachers, 63,333 pupils, and an average attendance of 38,874. The grammar-school pupils were only 657, and those at the normal school 281. The Education Department's receipts from Government grant were \$188,104; from municipalities, \$90,807; from district assessments, \$230,000; a total of \$508,911. The expenditure for the year was \$483,829.

NEWFOUNDLAND, a North American British colony; area, 42,200 square miles; population, 210,000. Capital, St. John's.

Legislation.—The legislative work of the Parliament in the session of 1899 comprised several useful and important enactments, bearing mainly on the industrial activities connected with the settlement of lands along the railway, mining, pulp making, lumbering, etc. One of the most important of these is an act relating to Crown lands. It deals with mining, the establishment of pulp mills, and the survey of lands, and is a marked improvement on previous acts. It provides that lands hereafter applied for shall be surveyed within a year and all fees be paid, and that lands already applied for shall be surveyed within two years. For the establishment of pulp mills it declares that the Governor in Council may grant, after one month's notice in the Royal Gazette, license to cut timber over not less than 5 nor more than 150 square miles, the licensee to pay a premium of \$5 a mile and an annual rental of \$3 a mile. The licensee must further expend \$20,000 on buildings and machinery. The licensee is not to exclude any person from cutting wood on the land for the *bona fide* purposes of the fisheries. In regard to mining grants, it provides that the applicant must mark distinctly the place he applies for. The extent of the square of land applied for shall not be more than 320 acres. Upon the payment of \$10 the person filing the notice shall receive a lease good for one year, and, if he wishes it, shall then, on payment of \$20, receive a lease for ninety-nine years, subject to a rental of \$20 for the first year, \$30 a year for the next five years, \$50 a year for the next five years, and \$100 a year for the remainder of the term. A lessee may, if he chooses, commute rent

by a single payment, or may obtain a grant in fee simple on payment of \$8,000. Where more than one apply for the same location it shall be granted to the first erecting boundary posts and applying within two months thereof for a grant. Mining leases entitle the holder to all minerals in his location. On the treaty coast the rental of mineral lands is to be one fifth of those above, and holders of licenses on that part of the island shall apply within one year for a new lease, when previous payments will be accepted as far as they go.

by a stipendiary magistrate, a warden, or Minister of Marine and Fisheries on payment of \$1 and the fee for the particular license taken. The fee for license to take two stags and one doe is \$40; to take three stags and one doe, \$50; and five stags and two does, \$80. The first license is good for four weeks, the second for six weeks, and the third for two months. Nondomiciled guides are not to be employed unless licensed. The fee for such license is \$25. No guide or member of a hunting party shall kill caribou except as part of the number specified in the license.

PLACENTIA BAY, NEWFOUNDLAND.

The next most important is the act that relates to the constitution, incorporation and registration, management and winding up of companies, liabilities of shareholders, powers of courts, etc. It provides for its application to existing companies, which must register under the new law within six months from the passing thereof (July 10, 1899).

The act respecting the extradition of criminals provides that a warrant for the apprehension of fugitive criminals may be issued by a stipendiary magistrate in St. John's on an order from the Governor—in other places, on complaint—but the Governor to whom the issue of such warrant must be communicated may order release. If a stipendiary magistrate apprehending a fugitive criminal do not receive an order from the Governor in a reasonable time, he shall discharge such criminal.

Important changes have been made in the game laws by an amendment of the act for the preservation of deer. In future caribou may not be hunted from Feb. 1 to July 15 or from Oct. 1 to Oct. 20 in one year. No one not licensed under this act shall kill more than three stags and one doe caribou. Persons not domiciled may not hunt caribou without a license, which may be issued

Export of caribou carcass or skin is prohibited except to licensee, who may export what he may have killed under his license, entering the same at the customhouse. Pits and snares for caribou are not allowed, under penalty of \$50, nor are they to be hunted with dogs or with hatchet or other contrivance except firearms.

Another act authorizes a loan of \$100,000 for encouragement of agriculture, to be expended in bonuses on clearing land.

An amendment of the revenue act imposes 10 per cent. additional on the duties collected under the revenue act of 1898. It provides that an excise duty of 1 per cent. a pound shall be paid on all oleomargarine manufactured, and 27½ cents on tobacco manufactured.

By another act the Governor's salary is increased to \$10,000 per annum.

A loan of \$146,000 for the erection of lighthouses, beacons, fog alarms, public wharves, public buildings, repairs, and improvements is authorized by another act.

An act for the amendment of the law relating to trial by jury provides for special juries in criminal and civil cases.

An act relating to light dues provides that

vessels entering shall pay once a year dues at the rate of 24 cents up to 500 tons, 12 cents additional per ton from 500 to 1,000 tons, and 6 cents additional on every ton over 1,000 up to 2,000. No ship shall pay more than \$240 in one year. Ships entering for repairs or supplies shall pay half rates, and Labrador coasting and fishing craft shall be exempt.

The act respecting marine courts of inquiry confers on such courts the power to inquire as to the conduct of any master who has failed to render assistance in a case of collision. It further provides that the court shall have power to cancel the certificate of a master's mate or engineer if through any wrongful act any ship has been lost or loss of life has occurred; if he is incompetent, drunk, or cruel; if in case of collision he has failed to render all practicable assistance or to stay by the other vessel until she has no further need of assistance; or if he has refused in case of collision to give the master of the other vessel particulars of his own.

Finances.—The prosperity of the colony in 1899 is indicated by the revenue, which is mainly derived from duties on imports. The average revenue is \$1,500,000, but the year's returns show a marked increase. The revenue for the last six months of 1899 was \$1,043,966, being \$230,862 more than in the corresponding period of 1898, and the largest ever received. At the close of the fiscal year, June 30, 1900, it is anticipated there will be a surplus of \$300,000. This advance is largely owing to the increased industrial activities resulting from the operations of the Reid contract, and partly to the abundant fisheries of the year and the good prices of fish in foreign markets.

The value of the exports in 1898-'99 was \$6,936,315. In the previous year the exports were in value \$5,226,933, and in 1896-'97 \$4,925,789. The value of the imports in 1898-'99 was \$6,311,244, against \$5,188,863 in 1897-'98.

The funded public debt of the colony is \$16,485,878, the greater part of which was spent in the construction of railways and public works.

The value of the fishery products in 1898-'99 was \$6,024,931.

The value of exports to the United Kingdom in 1898-'99 was \$1,443,266; to the Dominion of Canada, \$541,727; to the United States, \$620,056; to Italy, \$143,397; to Spain, \$88,317; to Portugal, \$799,649; to Brazil, \$1,912,868.

Mining.—The mining industries are making satisfactory progress. Mr. G. P. Howley, director of the Geological Survey, in his last report shows that the total value of the copper ore exported from 1888 to 1898 was \$5,907,638, and that the total value of copper ore exported since its first discovery was \$10,500,000. The total value of all minerals exported from 1888 to 1898 was \$7,829,158. Of this, \$1,502,260 was realized from the export of iron pyrites. The story of the copper mine at Tilt Cove, Notre Dame Bay, is remarkable. It was opened in 1864, and has been worked ever since without showing any signs of exhaustion. In the first twelve years it yielded 49,719 tons of ore, valued at \$1,572,347. The value of copper ore has advanced greatly, and last year the shareholders had a net profit of £70,000 sterling. Other copper mines are in operation. A new discovery of copper ore has been made at York harbor, Bay of Islands, of which mining experts report very favorably. It is worked by an English company. The splendid iron mine at Belle Isle has been already referred to. That portion of it purchased by the Whitney Syndicate is not the whole. Another, though

probably much smaller, deposit on the island is held by another company. Reports of the discovery of iron ore have been received from many quarters. On the west coast magnetic iron ore and chrome iron are found over large areas. Asbestos is also abundant on that coast. Petroleum wells have been sunk, with favorable results, in two localities on the west coast.

The greater part of the southern peninsula, called Avalon, belongs to the Cambrian formation, and contains immense veins of the finest roofing slate. Hitherto these slate deposits were considered to be of little importance, as the slate could not be exported with profit. But recently it has come to light that all the best slate quarries in Wales are approaching exhaustion, and no new deposits are in sight or likely to be found. The consequence is that from 15,000 to 20,000 Welsh quarrymen are likely to be thrown out of work ere long. Much anxiety is felt regarding their future, and the Welsh slate capitalists are looking round for new fields. Their attention has been drawn to Newfoundland. On the shores of Smith's Sound, Trinity Bay, is a large deposit of roofing slate. Charles D. Walcott, Esq., director of the United States Geological Survey, saw this slate quarry last summer. In his report he says: "In my opinion, this is one of the great roofing-slate deposits of the world, comparable with that of North Wales and the American deposits of Washington County, New York, and Rutland County, Vermont." This quarry has lately been sold for \$25,000. At Bay of Islands is another fine deposit on one of Mr. Reid's land concessions.

Gypsum of the best quality is found on the west coast in immense masses. It is also rapidly advancing in value. One gypsum property in St. George's Bay was lately sold for \$30,000. It will be worked on a large scale in 1900.

The Seal Fishery.—The seal fishery of 1899 was fairly remunerative. Eighteen steamers were employed, having a tonnage of 5,730 tons, and carrying 3,502 men. The number of seals taken were 268,541; gross weight, 6,280 tons. The greatest number of seals was brought in by the steamer Neptune, 32,134.

The Bank Fishery.—In 1898 the number of vessels employed was 74; number of men, 1,000; tonnage of vessels, 4,224 tons; codfish caught, 74,002 quintals.

The French Shore.—The Imperial Government appointed a commission in 1898 to report on the operation of the treaties and the condition of the people on the treaty shore. This report has not yet been published. The *modus vivendi* expired on Dec. 31, 1899. It is expected that it will be renewed for another year when the Legislature meets in April, 1900, so as to afford further time for negotiations.

Events.—Early in March Lieut.-Col. Sir Henry Edward McCallum, R. E., K. C. M. G., arrived as Governor of the colony. He was an officer of distinction, who had been Governor and commander in chief in Lagos. When there he had been sent on a special mission to the *Hinterland* in connection with French aggression, for which service he received the thanks of her Majesty's Government. Previously he had been colonial engineer and surveyor general at the Straits Settlements and commandant of the Singapore volunteer artillery. Since his arrival in the colony he has become very popular, having taken a deep interest in public affairs and shown zeal and energy in promoting the best interests of the people. In the summer and autumn he made tours around the island, calling at the principal

towns, inquiring into the condition and wants of the population, and in his public addresses pointing out various improvements and suggesting new industries. He specially urged the young fishermen to take advantage of the Naval Reserve, the organization of which has been extended to the colony, dwelling on the advantages they would derive from it. He is also endeavoring to promote the formation of a volunteer force.

The beneficial effects of the Reid contract of 1898 were fully apparent last year. One good result to the working classes has been the employment of more than 2,500 men in connection with the various operations of this contract at good wages. Indirectly, too, the contract has awakened among the people a spirit of hopefulness and enterprise. The operation of the railway was thoroughly efficient and satisfactory. Mails were carried regularly three times a week between Canada and the island, thus greatly increasing the facilities of business men. At Grand lake coal mining was carried on. In the same region, on one of Mr. Reid's land concessions, preparations are made for the erection of a great pulp factory, which will give a large amount of employment. A joint-stock company with a capital of \$2,500,000 has been formed, and in connection with the pulp works a fine mine of iron pyrites at the Bay of Islands will be worked. The first of Mr. Reid's fine fleet of seven steamers, built under the contract, has arrived. This is the *Glencoe*, intended to ply in summer between St. John's and Labrador, going as far north as Nain. Meantime during the winter months she will run between St. John's and Halifax. She is a splendid vessel, and beautifully fitted up for passengers. The other steamers built by Mr. Reid will arrive in May and June, and will ply on the great bays. The scenery of these bays is very fine, and hitherto almost unknown.

The influx of tourists, sportsmen, and health and pleasure seekers in 1899 was very great. One of the chief attractions to sportsmen is caribou shooting. The deer are in immense numbers in the interior, and their haunts can now be readily reached by the railway. Newfoundland is by far the finest deer-stalking country in the world, and is attracting sportsmen from all quarters. There is also ptarmigan shooting and salmon fishing. Mr. Reid is about to erect a fine hotel in St. John's for the accommodation of tourists and travelers, and along the line of railway several comfortable hotels are in course of erection.

Another notable event of the year was the visit of Sir William Van Horn, accompanied by several capitalists from the United States and Canada. The main object of their visit was to examine the great iron mine lately opened in Belle Isle, Conception Bay, about a dozen miles from St. John's. The Whitney Syndicate recently purchased this mine for \$1,000,000. The ore, which is red hematite, yielding from 48 to 56 per cent. of iron, lies in horizontal strata a few feet under the surface, and can be put on board for 25 to 30 cents a ton. No shafts are needed; it is worked like an open quarry. Experts estimate the quantity of ore in sight at 80,000,000 tons, and the probability is that the beds run out under the sea. Two thousand men will be employed here next summer, and the ore will be shipped at the rate of 3,000 tons a day. The bulk of it will go to Sydney, Cape Breton, where the Whitney Syndicate are erecting enormous steel works.

In St. John's the year 1899 will be memorable for the introduction of the electric street railway. The power house is at Petty Harbor, 7 miles from

St. John's, where there is a fine water power capable of generating sufficient electricity to operate the street railway, to light the streets and houses, and to drive all the machinery in the city. The work was approaching completion at the close of the year.

A deputation of Finlanders visited the colony in August, with the view of ascertaining whether the unoccupied lands would be suitable for the settlement of Finnish immigrants. Owing to the oppressive measures of the Russian Government, there is likely to be a large emigration from Finland, and the attention of the people had been directed to this island as likely to afford them desirable lands for colonization. The plan adopted by the leaders of this movement is to settle the immigrants in large groups of 1,000 or 2,000 families each, so that they can carry with them their language and customs. The deputies visited various parts of the island, but were unable to find sufficiently large spaces of good lands for their purpose. The fertile lands lie in belts along the principal rivers, but none were found to be sufficiently spacious. They then went to British Columbia.

NEW HAMPSHIRE, a New England State, one of the original thirteen, ratified the Constitution June 21, 1788; area, 9,305 square miles. The population, according to each decennial census, was 141,885 in 1790; 183,858 in 1800; 214,460 in 1810; 244,022 in 1820; 269,328 in 1830; 284,574 in 1840; 317,916 in 1850; 326,073 in 1860; 318,300 in 1870; 346,991 in 1880; and 376,530 in 1890. Capital, Concord.

Government.—The following were the State officers during the year: Governor, Frank W. Rollins; Secretary of State, Edward N. Pearson; Treasurer, Solon A. Carter; Attorney-General, Edwin G. Eastman; Adjutant General, Augustus D. Ayling; Insurance Commissioner, John C. Linehan; Bank Commissioners, John Hatch, Alpheus W. Baker, and George W. Cummings; Superintendent of Public Instruction, Channing Folsom; Secretary of the Board of Agriculture, N. J. Bachelder; Labor Commissioner, Lysander H. Carroll; Public Printer, Arthur E. Clarke; Chief Justice of the Supreme Court, Isaac N. Blodgett; Associate Justices, William M. Chase, Robert M. Wallace, Frank N. Parsons, Robert G. Pike, Robert J. Peaslee, John E. Young; Law Reporter, John H. Riedell.

Finances.—The cash in the treasury June 1, 1898, was \$414,515.86; the receipts during the year were \$1,260,239.07; total, \$1,674,754.93. The disbursements during the year amounted to \$1,333,168.05, and the cash on hand June 1, 1899, was \$341,586.88. The revenue was from the following-named sources: State tax, \$425,000; railroad tax, \$135,619.40; insurance tax, \$28,277.03; interest on deposits, \$3,843.11; license fees (peddlers), \$2,050; license fees (fertilizers), \$1,200; telegraph tax, \$3,283.50; telephone tax, \$4,202.55; charter fees, \$1,932.50; fees (insurance department), \$10,197.20; Lura S. Craig refunds part of the asylum charges, account of the Commissioner of Lunacy, \$10; Benjamin Thompson estate, income for the year ending Jan. 30, 1899, \$14,968.90; fees (Secretary of State) \$100.50; fines and forfeitures, \$110.

The ordinary expenses were \$344,616.57; extraordinary expenses, \$145,828.68; interest, \$107,759.88; total expenses, \$598,205.13; excess of revenue over expenses, \$32,589.56.

The disbursements by departments were: Executive, \$6,871.41; Secretary, \$5,351.33; Treasurer, \$5,050.95; Adjutant General, \$3,008.18; Public Instruction, \$5,942.28; Insurance, \$5,565.24; Su-

preme Court, \$29,315.05; State Library, \$17,424.80; Asylum for the Insane, \$15,014.84; Industrial School, \$6,182.62; State Prison, \$3,697.57; College of Agriculture, \$6,524.15; Normal School, \$10,580.11; Railroad Commissioners, \$8,736.60; Bank Commissioners, \$10,632.76; National Guard, \$29,999.56; Board of Agriculture, \$5,475.47; Board of Equalization, \$2,389.90; Board of Health, \$7,194.76; Forestry Commission, \$1,140.58; Labor Bureau, \$3,525.04.

The State debt was reduced during the year by \$32,589.56, leaving the net indebtedness June 1, 1899, \$1,335,068.05. The trust funds are: Fiske legacy, \$26,378.43; Kimball legacy, \$6,753.49; teachers' institute fund, \$58,668.98; Agricultural College fund, \$80,000; unclaimed savings bank deposits, \$2,096.19; Benjamin Thompson trust fund, \$517,834.02; Benjamin Thompson State trust fund, \$33,018.34; Hamilton Smith trust fund, \$10,000; total, \$734,749.45. The total expenditures on account of the Soldiers' Home for the year ending May 31, 1899, were \$15,626.25; received from the United States during the year as above, \$7,227.

The Treasurer says in his report: "The results of the operations of the treasury department the past year have been generally satisfactory, and the close of the year finds the treasury in a strong condition. The reduction of the State debt has not been as large as for the past three years, owing to two causes: First, the reduction of the State tax in the sum of \$75,000, and second, the expenses on account of the Spanish war, which have all been charged to the extraordinary expense account during the year to the amount of \$110,018.66, no part of which has been reimbursed by the United States. Notwithstanding this unusual expenditure, the balance has been on the right side and the State debt reduced \$32,589.56."

Banks.—There are under the supervision of the Bank Commissioners 80 savings banks, 13 State banks and trust companies, 10 of which have savings departments, 17 building and loan associations organized under the general laws, and 2 building and loan associations organized under special charters—the Granite State Provident Association, now in the hands of an assignee, and the Citizens' Building and Loan Association of Manchester, in liquidation by vote of its directors. Of the 80 savings banks, 28 are, in liquidation, as are 4 of the 13 trust companies.

The liabilities of the savings banks and savings departments of the trust companies that were in active business June 30, 1899, were: Amount due depositors, \$52,131,878.75; guarantee fund, \$2,964,930.30; interest, \$1,159,803.82; miscellaneous indebtedness, \$2,000—\$56,258,612.87; premium, \$3,491,632.17; total, \$59,750,245.04, showing an increase in bank deposits of \$2,570,148.05, against an increase of about \$80,000 for the year 1898—a fair index of the prosperity of the State in 1899.

The total accumulations of the building and loan associations organized under the general laws were, on June 30, 1899, \$1,921,927.88. Of this sum, there is invested in loans on local real estate, \$1,755,495.93; loans on shares, \$52,440.50; cash on hand and on deposit, \$42,074.09.

The total withdrawals during the year were as follow: Dues (capital), \$164,272.50; profits, \$34,826.77; dues retired, \$127,745; profits retired, \$51,070.69; dues matured, \$46,748; profits matured, \$28,912.80; profits forfeited, \$3,723.57; total dues withdrawn, retired, and matured, \$342,081.50; total profits withdrawn, retired, and matured, \$115,217.83.

Two cases of financial wrongdoing were un-

earthed in the year, one in the Colebrook Guarantee Savings Bank, involving \$18,765.94; the other in the Cochecho Savings Bank of Dover. In the former case, the deficit was made good by the stockholders, and the bank continues business; in the latter, the bank goes into liquidation.

Insurance.—The report of the Insurance Commissioner for the year ending Dec. 31, 1898, shows that 9 companies—7 of other States and 2 of other countries—were admitted during the year. One is conducted on the mutual and 8 on the stock plan. A recapitulation of the business of the New Hampshire companies, 30 in number, gives these figures: Risks written, \$41,887,421.13; premiums received, \$527,888.16; losses paid, \$233,112.53. The transactions of the Grange Mutual Company extend over the whole State, but insurance is written by it only on property belonging to members of the order of that name. Sixty-nine foreign fire and marine insurance companies (of other States and countries), including four mutuals, have done business in the State as follow: Risks written, \$49,511,494.67; premiums received, \$641,979.14; losses paid, \$384,347.03. Total business of all authorized companies: Risks written, \$91,398,915.80; premiums received, \$1,169,867.30; losses paid, \$617,459.56. The number of fires reported for the year 1898 was 467, against 403 reported for 1897.

The business of 18 authorized fidelity and casualty companies was: Risks written, \$16,161,151.03; premiums received, \$85,418.95; losses paid, \$26,703.73. No changes have taken place among the life insurance companies. The New Hampshire business of the 23 authorized companies for the year was: Premiums received, \$956,309.85; losses paid, \$381,879.30; policies issued (2,904), \$3,867,335.01; policies in force (18,843), \$30,402,181.82.

Six assessment life associations had 1,538 policies in force, amounting to \$3,065,648; assessments, etc., were paid to the amount of \$83,163.44; while the losses and claims paid amounted to \$63,359. Nine assessment casualty companies had 4,730 risks in force, amounting to \$3,785,150; assessments paid, \$48,903.32; losses and claims paid, \$23,712.10. Fraternal beneficiary associations to the number of 29—a reduction of six since 1897—report 18,803 certificates in force; amount received from assessments, \$291,299.80; and losses and claims paid to the amount of \$297,332.24.

Railroads.—The report of the Railroad Commissioners for 1899 says that the business depression which so diminished the earnings of all American railroads and seriously crippled those that were not very strong in 1893 and 1894 was not overcome until the spring of 1899, when the recovery came suddenly and with great force. The returns, therefore, for the year ending June 30, 1899, cover but a few weeks of prosperity, and show but a moderate improvement in earnings. Since then, however, our roads have had an immense traffic, especially in freight, the volume of which has been fully up to their ability to handle it promptly.

The report contains the returns of 23 steam railroad and 8 street railway corporations doing business in the State June 30, 1899, and the findings, decisions, and orders in 69 cases heard by the board during the year.

Taken together, the earnings of the four systems of steam railroads which include nearly all the mileage of the State—the Boston and Maine, the Fitchburg, the Atlanta and St. Lawrence, and the Maine Central—were respectively \$32,-

\$51,694.94 in 1897, \$33,107,952.11 in 1898, and \$33,735,540.02 in 1899.

There was no addition to the mileage during the year, which was 1,171 June 30, but the trackage was considerably increased by the construction of sidings. The Boston and Maine laid in the State 516,214 new ties, and 2,892 tons of new and 3,637 tons of old steel; the Maine Central, 48,853 ties and 500 tons of new steel rails; the Atlantic and St. Lawrence, 35,617 ties and 610 tons of new steel; and the Fitchburg, 24,075 ties and 400 tons of new steel.

During the calendar year 1899 the Boston and Maine purchased the property rights and franchises of the Eastern Railroad in New Hampshire, extending 16.08 miles from the State line of Massachusetts to the State line of Maine; the Portsmouth and Dover Railroad, 11 miles from Portsmouth to Dover; and the Portland and Rochester Railroad, from Rochester to Portland, 52 miles. Having acquired the Eastern Railroad in New Hampshire, the Boston and Maine proceeded to construct a second track and separate the grades upon the highway crossings between Newburyport and Portsmouth. The improvements involve an expense of about \$400,000, and will be completed early in 1900.

The Boston and Maine has completed the equipment of its locomotives and cars with the automatic couplers and power brakes required by the act of Congress, having expended for this purpose about \$800,000. The Maine Central and the Fitchburg have also practically met the requirements of the law, and the Atlantic and St. Lawrence are progressing with the same work.

The burning of coke fuel and the oiling of roadbeds in summer to prevent annoyance caused by smoke, cinders, and dust, have proved highly successful as experiments, under the direction of the Boston and Maine Railroad. These improvements will be adopted by this railroad system at an early day.

The Legislature of 1899 passed an act authorizing the Concord and Montreal Railroad to construct a branch from some point on its Manchester and North Weare road to Milford. It runs from a point beginning near Grasmere station, through Goffstown, Bedford, Merrimack, and Amherst, to a junction with the Wilton and Fitchburg roads in Milford. The new track will be 18½ miles long, and, with the section of the North Weare branch below Grasmere junction, which is to be used to make a connection with the Manchester station, will make a road 23 miles in length. It will be opened for business in 1900.

The Legislature of 1899 granted special charters for 8 electric railroads, and authorized several extensions. The earnings of the five principal street railways for the year ending June 30, 1899, were \$328,565.80; all expenses, \$313,230.99.

Bureau of Labor.—It has been the purpose of the Bureau of Labor in its canvass of the summer boarding statistics to collect for the general information of the public the most reliable data possible. The following is a general summary of the summer business of 1899:

Capital invested in summer property, as listed for taxation, \$10,442,352. Number of different guests remaining one week or longer, 58,222; number of guests remaining less than one week, 95,706; total, 174,280. Number of male help employed, 3,297; female help, 9,057; total, 12,354. Total wages paid, \$539,901. Increase in number of guests over 1898, 8,093; increase in cash received at hotels and farmhouses over 1898, \$402,341.

Cash received from summer people, \$4,947,935;

from railroad fares (estimated), \$600,000; from stage fares, \$63,275.50; from steamboat fares on Lakes Winnepesaukee, Assquam, Sunapee, and Newfound, \$60,369.21; invested in buildings and properties for summer use, \$937,785; total volume of summer business and investments for 1899, \$6,609,364.71.

Agriculture.—The Board of Agriculture, composed of 10 members appointed by the Governor, has a general oversight of the agricultural interests of the State. Educational work has been carried on by means of holding annually a good-roads institute, field meetings, winter public meetings, and 16 farmers' institutes. It has also taken action in advertising the attractions of the State for summer homes, resulting in the occupancy of many farms for the purpose. Dairy and fertilizer laws are enforced. Arrangements for carrying into effect the first systematic observance of Old Home Week, under State supervision, were, at the suggestion of Gov. Rollins, directed from its office. About 50 gatherings in as many towns were held during the period fixed upon as Old Home Week—Aug. 26 to Sept. 1. The largest of these gatherings was in Concord, Aug. 31, where 30,000 persons assembled, coming from all sections of the country.

The Grange is a farmers' organization, composed of 260 local branches, containing 23,000 members, and is a permanent educational and social factor. Over 7,000 meetings were held in 1899.

There were held in the State in 1899 1 State, 16 county or district, and 60 town agricultural fairs.

Military.—This State has a well-equipped National Guard of about 1,300 officers and men, organized as a brigade of 3 8-company regiments of infantry, 1 4-gun light battery, 1 troop of cavalry, a signal corps, and a hospital corps. This force, in uniforms, equipments, drill, and discipline, conforms as closely as is possible to the regulations of the United States army. The quota of New Hampshire under the President's call of April 23, 1898, was one 12-company regiment, with a maximum of 84 and a minimum of 81 officers and men to a company. The Third Regiment National Guard was selected as the basis of the quota, and was designated the First Regiment New Hampshire Volunteers. It left Concord, May 17, with 1,009 officers and men. On May 25 the President called for 75,000 additional volunteers, and the State quota under this call was 318 men, who were promptly enlisted as recruits for the First Regiment. The regiment was stationed at Chickamauga until Aug. 26, when it returned to Concord, and was mustered out Oct. 12, having seen no active service.

Education.—A law, known as "the Grange law," was enacted which it is believed will materially advance the cause of education in the smaller and financially weaker towns. It provides for the annual distribution of \$25,000 from the treasury, as follow: \$18,750 is to be distributed among those towns whose valuation is less than \$3,000 for each child of the average attendance in the public schools of such towns the preceding year, in direct proportion to said average attendance, and in inverse proportion to valuation per child. (Sixty-two towns received such aid.) The remainder of the \$25,000, or \$6,250, is devoted to skilled supervision in the following manner: School boards of two or more towns or districts whose aggregate number of teachers is not less than 20 nor more than 60 may unite and organize, elect a superintendent, fix his salary, and determine and apportion his services. Such superintendent assumes the powers

and duties delegated by law to town superintendents, and has a general oversight, examination, and charge of the teachers in his union. He must hold a State teachers' certificate and devote his entire time to the work. When a union of towns or districts has been effected, and a superintendent has been employed and paid, then the State reimburses the towns in the union to the extent of half the amount so expended for supervisory purposes. The towns or districts entitled to State aid are those under \$2,000,000 of valuation each.

The State Library.—This library consisted of about 1,000 volumes in 1846, 7,000 in 1867, 36,000 in 1890, 49,000 in 1898, and 61,000 at present. About half this number consists of the law library and the reports and journals of the different States and of the United States; the other half, of a general reference library on all subjects. The trustees are prohibited by law from purchasing fiction and poetry, except as written by New Hampshire authors or printed within the State, in which cases they are of special interest to the institution. The collection of works illustrating the bibliography of New Hampshire is large and constantly increasing. The miscellaneous library is also strong in New England local history, genealogy, natural science, and sociology. The rate of increase is about 7,000 bound volumes each year, and as many pamphlets. The librarian is Arthur H. Chase, of Concord.

The Anti-Saloon League.—This is a branch of the American Anti-Saloon League, a temporary organization having been effected by Dr. H. H. Russell, superintendent of the American League, Feb. 1, 1899. Dr. P. S. McKillop was appointed superintendent to carry forward the work of agitation with a view to permanent organization. This was perfected in Manchester, March 14, 1899. The president is Rev. J. H. Robbins, and the secretary and treasurer, L. M. Robbins, both of Concord. Rev. P. S. McKillop, who remained superintendent until his resignation, June 30, held about 100 meetings, and sought to arouse a better public sentiment in towns visited, and to concentrate such awakened public sentiment in organized effort for the suppression of the liquor traffic. After his resignation the work was continued by the president with such help as he could secure from the pastors of the State. In November the Hon. M. J. Fanning, of Baltimore, Md., was made superintendent, and continued a vigorous campaign throughout the year.

The objects of the league are the maintenance of the prohibitory law upon the statute books, with improvements as may from time to time be found necessary, and the securing of its impartial enforcement.

Legislative Session.—The session of the Legislature began Jan. 4 and ended March 11, with 24 Senators (22 Republicans and 2 Democrats) and 359 Representatives. Thomas N. Hastings was President of the Senate, and Frank D. Currier, Speaker of the House.

Frank W. Rollins was inaugurated, Jan. 5, the fifty-fifth Governor of the State and the forty-sixth person to occupy the office. The following were declared to have been elected councilors: Sumner Wallace, Stephen H. Gale, George F. Hammond, Harry M. Cheney, Henry F. Green.

The Republican candidates for State officers—Edward N. Pearson for Secretary of State, Solon A. Carter for Treasurer, and Arthur E. Clarke for Public Printer—were also elected.

In all, 179 bills (public and private) and 43 joint resolutions were passed; no bill was vetoed.

Punishment by imprisonment in the State Prison not exceeding ten years, or by fine not exceeding \$1,000 and imprisonment not exceeding one year, is provided for any person knowingly having in his possession, for any purpose, burglarious tools or implements.

An act relating to the repairs of highways provides that each town shall be divided into highway districts, with a surveyor for each; that each town shall annually appropriate a prescribed sum for the repair of highways and bridges, to be expended under the supervision of the surveyors; that the selectmen may determine the prices of labor and materials; and that the highway surveyors shall make all repairs subject to the general direction of the selectmen. This act to be in force only in such towns as vote to adopt the same.

An act in amendment of existing laws concerning the "public printer and public printing" materially reduces prices of composition, presswork, and stock.

All payments and expenditures made by the Governor and Council in connection with the furnishing of troops in the war with Spain are ratified and confirmed and the Treasurer authorized to charge them to the account of the Spanish war, against such time as a settlement may be effected with the United States Government.

The State accepts the donation of \$10,000 from Hamilton Smith, of Durham, for the benefit of the New Hampshire College of Agriculture and the Mechanic Arts, with the conditions specified in the deed of gift.

Every plumber in any city (or town, under certain conditions) must, before he can prosecute his business, secure a plumber's license from a board of examiners, which license is to be paid for and recorded, and renewed every year.

Provision is made for the appointment of State and town liquor agents, with regulations for their conduct.

Verification of the books of depositors in savings banks must be made every four years, under stringent provisions.

Foreign insurance companies may not write policies except through resident agents, nor re-insure risks except as provided.

The width of wheel rims or fellies for heavy wagons is prescribed, the act to take effect Jan. 1, 1900. Violations of its provisions are subject to a fine not exceeding \$25.

Two commissions were appointed to represent the State at the Paris Exposition of 1900.

The sum of \$25,000 was appropriated to the Asylum for the Insane for new buildings for each of the years 1899 and 1900; a special appropriation of \$9,400 for the Industrial School; \$20,000 for a "Soldiers' Home fund," to cover the years 1899 and 1900; \$7,500 for the New Hampshire College of Agriculture and the Mechanic Arts for each of the years 1899 and 1900; \$10,000 annually for two years to Dartmouth College; and \$8,000 for special uses at the State Normal School. The State Prison is nearly self-sustaining through its manufactures.

Among other measures passed were these:

Relating to holidays.

Relating to registration of births, marriages, and deaths.

For the protection of fish and game.

To prevent the adulteration of candy.

For protecting bald eagles.

A new apportionment for assessment of public taxes.

For better protection of water supplies.

To prevent the desecration of national and State

flags. For the better protection of the colors of the State war regiments.

To regulate the practice of embalming.

A State highway was authorized to be laid out between Nashua and Manchester; also one between the State line at Salisbury Beach and Newcastle.

NEW JERSEY, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 18, 1787. Area, 7,815 square miles. The population, according to each decennial census, was 184,139 in 1790; 211,149 in 1800; 245,562 in 1810; 277,426 in 1820; 320,823 in 1830; 373,306 in 1840; 489,555 in 1850; 672,035 in 1860; 906,096 in 1870; 1,131,116 in 1880; and 1,444,933 in 1890; by the State census of 1895, 1,672,942. Capital, Trenton.

Government.—The following were the State officers during the year: Governor, Foster M. Voorhees; Secretary of State, George Wurtz; Treasurer, George B. Swain; Comptroller, William S. Hancock; Attorney-General, Samuel H. Grey; Adjutant General, William S. Stryker; Superintendent of Public Instruction, Charles J. Baxter; Commissioner of Banking and Insurance, William Bettle—all Republicans. Chief Justice of the Supreme Court, William J. Magie, Republican; Associate Justices, Gilbert Collins, Republican; David A. Depue, Republican; Jonathan Dixon, Republican; Bennet Van Syckel, Democrat; Charles G. Garrison, Democrat; Job H. Lippincott, Democrat; William S. Gummere, Republican; George C. Ludlow, Democrat; Clerk, William Riker, Republican. Court of Errors and Appeals: Judges, J. W. Bogart, G. Krueger, Frederic Adams, W. H. Vredenburgh, Charles E. Hendrickson, and James H. Nixon. Chancellor, Alexander T. McGill.

Finances.—The income and disbursements of the State fund for 1898-'99 were as follow: Gross receipts, \$3,049,700.82; balance on hand Oct. 31, 1898, \$1,001,524.45; total, \$4,051,225.27; gross disbursements, \$2,798,071.85; balance in bank Oct. 31, 1899, \$1,253,153.42.

Payments were made during the year classed as "extraordinary disbursements," amounting to \$778,706.91, an increase over the preceding year of \$587,536.57, largely due to the expenditure of nearly \$400,000 for expenses incurred in aiding the United States to raise the volunteer army.

The "civil war debt" has been reduced by the payment of \$123,000, leaving a balance of \$71,000 of the "war debt," which falls due Jan. 1, 1902.

Valuation.—The assessed value of real and personal property taxable locally for all purposes for 1899 is as follows: Real estate, \$755,276,846; personal property, \$141,450,551; making the total, less the deductions for debts, \$864,516,527. The increase of the assessments of 1899 over those of 1898 shows a net gain of \$20,151,329. The total valuation of exempt property in the State for 1899 is \$97,096,589.

Corporations.—There were 1,945 corporations chartered and authorized to issue capital stock to the amount of \$3,500,000,000 in New Jersey during the fiscal year of the corporation department. Nearly 200 of these are each capitalized at \$2,000,000 and upward. Six hundred of them each have a capitalization of \$1,000,000 or more. Fifteen thousand corporations in every section of America are to-day operating under the laws of New Jersey. By the incorporating of these concerns, the State has legalized the issuance of stock aggregating nearly \$8,000,000,000. This year has witnessed the formation of more corporations in New Jersey than any other in the history of the State.

Banks.—The Legislature of 1899 changed the system of taxing bank shares by providing that "every person shall be assessed in the township or ward where he resides for all shares of the stock of any national bank in this State, or of any bank organized under the laws of this State, owned by him or in his possession or control as trustee, guardian, executor, or administrator; and in case said owner, trustee, guardian, executor, or administrator shall be a nonresident of this State, then and in that case such bank shall be assessed in the township or ward where said bank has its principal place of business, to the amount of such shares so owned or held by nonresidents as aforesaid in the manner now provided by statute in the case of other corporations, and except as aforesaid the property, real and personal, of such banks, shall not be subject to assessment or tax." This act apparently excludes the bank building and the real estate of the bank from taxation, and its constitutionality is likely to be passed upon by the Supreme Court in *certiorari* proceedings brought before it by the Mechanics' National Bank of Trenton.

Education.—The annual enrollment in the Normal School was, through the raising of the standard of admission, brought within the range of efficient management. The Model and Farnum schools each show an increased enrollment. The total annual enrollment was 1,455, or 5 more than last year. The Normal School graduated 273 students, all of whom are teaching. The average salary was \$40.66.

State Prison.—At the close of the fiscal year, Oct. 31, 1898, there were 1,228 inmates of the prison, against 1,131 a year before. The daily average for the year was 1,207. There were received under commitment during the year 640. There were received at the institution during the following year 478 felons. Of this number 445 males were received from the State courts, 22 females were received from the same source, 9 males were received from the Federal courts, and 2 males were returned from the insane asylums as cured. There were discharged during the year by the expiration of sentence 469 State prisoners and 99 United States prisoners.

Riparian Commission.—The commission, during a large part of the year, suspended the making of grants and other conveyances while it considered a change in the method of dealing with the riparian lands. Its receipts, therefore, were less than they would have been had the old policy been pursued. They report having received: From grants in fee, \$11,884.17; from leases, \$1,726; from licenses, \$710; from conversions, \$41,813.50; from rentals from leases, \$46,609.85; total, \$102,743.52. The State realized in all from the sale of its lands under waters about \$4,000,000 and from rentals therefor about \$1,000,000.

Sewerage Commission.—The Legislature created a State Sewerage Commission, and the following were appointed commissioners: William T. Hunt, president; John Hinchcliffe, treasurer; Charles A. Fuller, Charles T. Harrington, and David L. Wallace. The Legislature gave to the members a veto power upon new sewerage systems which they might deem injurious to the public.

Manufactures.—The following statement of leading manufactures having a capital invested of \$1,000,000 or more has been issued from the Bureau of Statistics. The results given are for 1898. Artisans' tools: 22 establishments; capital, \$2,317,144; product, \$1,529,630. Brewing: 26 establishments; capital, \$10,722,417; product, \$9,-

990,845. Brick and terra cotta: 45 establishments; capital, \$4,752,438; product, \$3,566,941. Chemical products: 22 establishments; capital, \$4,073,688; product, \$7,266,638. Cotton goods: 14 establishments; capital, \$1,642,500; products, \$2,062,493. Cotton goods (finishing and dyeing): 14 establishments; capital, \$4,449,400; product, \$6,640,930. Electrical appliances: 7 establishments; capital, \$1,692,000; product, \$1,534,969. Fertilizers: 10 establishments; capital, \$3,857,300; product, \$3,781,101. Food products: 9 establishments; capital, \$1,510,500; product, \$3,569,892. Foundry (iron): 24 establishments; capital, \$1,903,623; product, \$3,810,689. Furnaces, ranges, and heaters: 13 establishments; capital, \$2,184,437; product, \$3,493,282. Glass (window and bottle): 16 establishments; capital, \$2,654,440; product, \$3,225,205. Graphite products: 3 establishments; capital, \$1,134,300. Hats (felt): 36 establishments; capital, \$1,814,272; product, \$6,130,543. High explosives: 6 establishments; capital, \$1,488,735; product, \$1,433,750. Jewelry: 57 establishments; capital, \$2,651,107; product, \$4,587,405. Leather: 36 establishments; capital, \$2,994,653; product, \$8,249,889. Leather goods: 12 establishments; capital, \$1,021,000; product, \$1,819,004. Lamps: 7 establishments; capital, \$1,553,969; product, \$2,325,615. Machinery: 65 establishments; capital, \$8,790,070; product, \$10,431,775. Metal goods: 31 establishments; capital, \$3,191,794; product, \$4,398,335. Oilcloth (floor and table): 6 establishments; capital, \$1,975,000; product, \$2,574,426. Oils: 9 establishments; capital, \$13,969,270; product, \$27,071,024. Paper: 30 establishments; capital, \$2,255,200; product, \$3,627,503. Pottery: 22 establishments; capital, \$4,598,026; product, \$2,393,681. Rubber goods (hard and soft): 21 establishments; capital, \$3,359,794; product, \$6,057,748. Shoes: 40 establishments; capital, \$2,230,131; product, \$6,216,895. Shirts: 18 establishments; capital, \$725,100; product, \$1,811,099. Silk (broad and ribbon): 106 establishments; capital, \$18,663,609; product, \$37,042,215. Silk dyeing: 21 establishments; capital, \$1,692,773; product, \$4,279,859. Silver goods: 7 establishments; capital, \$1,263,400; product, \$1,021,203. Smelting and refining: 2 establishments; capital, \$2,500,000; product, \$18,958,000. Steel and iron (structural): 15 establishments; capital, \$1,786,500; product, \$3,256,964. Steel and iron (forging): 6 establishments; capital, \$2,180,900; product, \$2,314,801. Varnish: 10 establishments; capital, \$1,711,500; product, \$1,229,938. Watches, cases and materials: 8 establishments; capital, \$2,276,000; product, \$2,242,360. Woolen and worsted goods: 22 establishments; capital, \$5,764,066; product, \$6,818,752. Unclassified: 33 establishments; capital, \$4,043,110; product, \$3,316,299.

Labor Troubles.—Between Jan. 1, 1898, and Aug. 31, 1899, there were 34 strikes and lock-outs in the State, involving the labor of 5,257 men and 456 women. The number of idle days aggregated 1,751, and the loss in wages amounted to \$353,841. In 9 instances the strike was reported as successful, in 8 partly so, in 13 not successful, and 2 were unreported.

Vital Statistics.—The State Board of Health reports that the number of births in New Jersey during the last fiscal year was 34,687; the number of marriages, 13,664; the number of deaths, 28,033; the number of stillbirths, 2,083. This was an increase over the fiscal year of 1897 of 3,092 in births and 52 in stillbirths, and a decrease for the same period of 4,507 in marriages and 1,799 in deaths. The falling off in the marriages was due to the marriage license law, which

stopped the hasty marriages in Camden and some other points bordering on other States.

Insane.—This year 272 patients were admitted to the hospital at Morris Plains and 206 were discharged; 267 were sent to the hospital at Trenton, and 216 discharged therefrom. The total number under treatment during the year was 1,508 in the former and 1,386 in the latter.

National Guard.—The National Guard as re-organized consists of 4 regiments of infantry, of 12 companies each, 2 troops of cavalry, 2 field batteries of artillery, organized into 2 brigades, each brigade to consist of 2 regiments of infantry, 1 troop of cavalry, and 1 field battery of artillery. One signal corps, to be attached to division headquarters.

Political.—The Republican members of the Legislature on Jan. 10 nominated John Kean for United States Senator, to succeed James Smith (Democrat) for the six-year term beginning March 4. The two houses met on Jan. 24 and voted separately, the result being: Senate—Kean 14, Smith 7; House—Kean 37, Smith 22. On Jan. 25 the joint session confirmed the ballot of the day previous and declared Mr. Kean elected.

NEW MEXICO, a Territory of the United States, organized Sept. 9, 1850; area, 122,580 square miles. The population, according to each decennial census, was 61,547 in 1850; 93,516 in 1860; 91,874 in 1870; 119,565 in 1880; and 153,593 in 1890. Capital, Santa Fe.

Government.—The following were the Territorial officers: Governor, Miguel Antonio Otero; Secretary, George H. Wallace; Treasurer, J. H. Vaughn; Auditor, L. M. Ortiz; Adjutant General, William H. Whiteman; Solicitor-General, E. L. Bartlett; Superintendent of Public Instruction, Manuel C. de Baca; Mine Inspector, J. W. Fleming; Chief Justice of the Supreme Court, William J. Mills; Associate Justices, Frank W. Parker, Jonathan W. Crumacker, John R. McFie, and Charles C. Leland; Clerk, José D. Sena.

Finances.—From November, 1896, to June, 1899, the revenues of the Territory amounted to \$287,046.96. This amount does not include the following items: Proceeds of capital rebuilding bonds, \$73,125; proceeds of Insane Asylum bonds, \$30,000; money borrowed to complete payment of interest coupons under section 2607, Compiled Laws of 1897, \$51,600; United States annual appropriation for Agricultural College, \$47,000. The principal items of revenue are: Taxes, \$252,425.60; cattle indemnity fund, \$12,000; fees paid by district court clerks, \$7,820.79.

The expenditures for the same period are given as \$347,315.15, exclusive of the following items: United States annual appropriation for Agricultural College, \$47,000; paid notes given for the interest fund, \$23,600. The principal items of expenditure are: Interest funds, \$86,142.50; Territorial Institutions, \$42,459.19; Penitentiary, \$40,035.05; capital rebuilding fund, \$34,323.86. The Territorial debt, June 30, 1899, was \$1,243,400. The total indebtedness of the counties, June 30, 1899, was \$2,997,665. There has been paid to the several Territorial institutions during the past two years as follows: University, \$23,180; Agricultural College, \$9,404.57; Insane Asylum, \$59,189.03; School of Mines, \$8,655; Military Institute, \$9,700; Silver City Normal School, \$9,033; Las Vegas Normal School, \$9,318; total, \$128,479.60.

Valuation.—The assessed valuation of the Territory, 1898, is reported as \$40,124,724.79, as against \$39,478,119.18 in 1897, and \$36,091,192.48 in 1896. The rate of taxation, 1897, was 10.80 mills, as against 7.75 mills in 1896.

Education.—In 1898 the amount raised for schools was \$182,172.18; the number of teachers was 541; the average daily attendance for each school was 30 pupils; the average daily attendance for the Territory was 16,558 pupils; and the average number of months taught was five.

There are in successful operation the following Territorial institutions: The Agricultural College, at Las Cruces, with two substations, one at Las Vegas and one at Aztec; the University of New Mexico, at Albuquerque; the School of Mines, at Socorro; the Normal University, at Las Vegas; the Normal School, at Silver City; the Military Institute, at Roswell; and the School for the Deaf, Dumb, and Blind, at Santa Fé. These institutions during the last past school year have had 405 students. The Catholic Church has 18 schools in operation, attended by 1,602 pupils, employs 72 teachers, and has school property to the value of \$231,700. The Methodist Church supports 11 schools, attended by 462 pupils, and has school property valued at \$10,000. The New West Educational Commission supports 5 schools, attended by 219 pupils, employs 7 teachers, and has school property to the value of \$44,000. The Presbyterian Church supports 25 schools, attended by 1,105 pupils, employs 25 teachers, and has school property to the value of \$37,000. The total average daily attendance for the Territory is 20,273 pupils, counting all educational institutions.

The New Mexico Military Institute was first opened for students in September, 1898. It is at Roswell, 3,700 feet above the level of the sea. It receives about \$12,000 annually from the Territory, and during the session of 1898-'99 earned \$9,500 additional in tuition fees, enrolling 105 cadets.

Penitentiary.—The number of inmates during the past two years varied but little. Its highest number in 1897 was 215, and its highest number in 1898 was 222.

Insane Asylum.—The number of patients remaining at the asylum Nov. 1, 1896, was 59—36 males and 23 females. There were admitted during the two years 37 patients—23 males and 14 females, who, added to the 59 patients remaining in the institution Nov. 1, 1896, made a total of 96.

Irrigation.—The improved systems of irrigation are developing rapidly. The Springer system of irrigation is in operation, with 50 miles of ditches and 5 reservoirs, covering 22,000 acres. The Vermejo system of irrigation, which controls 57 miles of ditches and 10 reservoirs, supplies 30,000 acres. In the northwestern portion of the Territory there are 200 miles of ditches, watering 24,000 acres. Here are several tracts of fertile soil, accessible to streams that will afford an ample water supply. Also extensive ditch systems are in operation in the Mimbres region of Grant County.

Railways.—There were 290 miles of new railroad constructed within the Territory during the year by the following companies: El Paso and Northeastern, 152; Pecos Valley and Northeastern, 100; Alamogordo and Sacramento Mountain, 20; Atchison, Topeka and Santa Fé, 18.

Arrangements are being made for a new railroad to be constructed from Las Vegas through the Mora valley to Taos, 100 miles. A company has also been organized for constructing a new railroad from Durango, in Colorado, through San Juan County, New Mexico, to Albuquerque or Gallup.

State Capitol.—Senator Elkins introduced a bill in the United States Senate to authorize the

New Mexican Territorial Legislative Assembly to contract a debt not exceeding \$30,000, for completion and furnishing of the Territorial Capitol, at Santa Fé.

Statehood.—In the annual report, 1899, of Gov. Otero to the Secretary of the Interior, the Governor estimates the population at 285,829, and makes an urgent appeal for statehood. He says: "Our assessed value for taxation has increased, and it is now more than \$40,000,000, and constantly growing, while the population, owing to immigration, is also increasing rapidly. New Mexico sold more than 18,000,000 pounds of wool this year, which is 3,000,000 pounds more than ever before in her history, while her mines of copper and gold are being developed in a manner never before known. More capital has been invested in their development during the past year than previously."

Political.—The Territorial Legislature has 6 Democrats and 30 Republicans in the two branches.

NEW YORK, a Middle State, one of the original thirteen, ratified the Constitution July 26, 1788; area, 49,170 square miles. The population, according to each decennial census, was 340,120 in 1790; 589,061 in 1800; 959,049 in 1810; 1,372,111 in 1820; 1,918,608 in 1830; 2,428,921 in 1840; 3,097,394 in 1850; 3,880,735 in 1860; 4,382,759 in 1870; 5,082,871 in 1880; and 5,997,853 in 1890. According to a State census taken in 1892, the population was 6,513,344, and according to an estimate made at the close of 1899 the population was 7,100,000. Capital, Albany.

Government.—The following were the State officers during the year: Governor, Theodore Roosevelt, Republican; Lieutenant Governor, Timothy L. Woodruff; Secretary of State, John T. McDonough; Comptroller, William J. Morgan; Treasurer, John P. Jaeckel; Attorney-General, John C. Davies; State Engineer and Surveyor, Edward A. Bond; Superintendent of Public Instruction, Charles R. Skinner; Superintendent of Insurance, Louis F. Payn; Superintendent of Banking Department, Frederick D. Kilburn; Superintendent of State Prisons, Cornelius V. Collins; Superintendent of Public Works, the vacant office was filled early in January by the appointment of John N. Partridge; Commissioner of Labor Statistics, John T. McDonough, who was succeeded on Jan. 23 by John McMackin; Railroad Commissioners, Ashley W. Cole, George W. Dunn, and Frank M. Baker; Chief Judge of the Court of Appeals, Alton B. Parker; Associate Judges, John C. Gray, Denis O'Brien, Celora E. Martin, Edward T. Bartlett, Albert Haight, and Irving G. Vann.

Finances.—The State Treasurer reported a balance of \$3,973,804 in the treasury on Oct. 1, 1899, compared with \$1,654,225 on Dec. 31, 1898. The receipts for the fiscal year ending Sept. 30 were \$25,837,136, which, with the balances of the preceding year, gave a total of \$29,810,941. The total payments amounted to \$25,306,126, leaving a balance in the treasury of \$4,505,814. The present valuation of the State is \$5,076,396,824. The amount received for corporation and organization taxes was \$2,741,318. The amount in 1898 was \$2,497,247, showing an increase of \$244,071. The amount received for tax on inheritance was \$2,194,612, an increase of \$197,402. The amount received from the Excise Department was \$4,231,278, an increase of \$15,417. The State tax rate was 2.49, compared with 2.08 for 1898 and 2.67 in 1897. This increase is considered due to the fact that in 1898 there was a large surplus of the Raines law revenue. It is distributed as follows: Gen-

eral, including care of insane, 1.26; school, 0.81; canal maintenance, 0.18; canal, payment of debt, 0.13; canal, new work, 0.04; canal, extraordinary expenses, 0.07; total tax levy, 2.49 mills. This tax is on an estimated valuation of \$5,076,396,824, and will realize the following sums: General purposes, including care of the insane, \$6,396,200; for free schools, \$4,111,881; maintenance and ordinary repairs of the canals, \$913,751; new work on the canals, \$203,055; canal debt, \$659,931; extraordinary canal expenses, \$355,347; total, \$12,640,228. The revenues from indirect sources for the year are estimated at \$14,600,312.

Valuation.—According to a report issued by the Comptroller, showing the assessed valuation of real and personal property in the counties of the State, as returned to his office by boards of supervisors for 1899, the total valuation of real and personal property was \$5,562,204,198, as compared with \$5,186,635,964 in 1898, an increase of \$375,568,234. The total value of real property was \$4,813,779,260, as compared with \$4,419,918,435 in 1898, an increase of \$393,860,825. The total personal property was \$748,424,938, as compared with \$766,617,529 in 1898, a decrease of \$18,192,591. The total valuation of real estate in New York County was \$2,178,605,905, an increase of \$322,137,982. The personal property was \$490,482,930, a decrease of \$18,539,519. In Kings County the value of the real estate was \$669,822,267, an increase of \$99,714,525, and of personal property \$45,270,713, an increase of \$11,581,992. In Nassau County the real estate was \$21,176,703, an increase of \$1,356,041, and the personal property \$1,530,260, a decrease of \$44,620. In Richmond County the real estate was \$40,264,692, an increase of \$15,893,141, and the personal property \$3,838,890, an increase of \$2,210,181. The other larger counties of the State show the following: Queens, valuation of real estate, \$103,752,600, an increase of \$21,162,057; valuation of personal property, \$6,314,032, an increase of \$4,306,232. Albany, valuation of real, \$91,066,799, a decrease of \$46,068; personal, \$9,562,940, a decrease of \$295,880. Rensselaer, valuation of real, \$71,302,808, a decrease of \$45,899; personal, \$7,551,432, a decrease of \$405,499. Monroe, valuation of real estate, \$137,058,462, an increase of \$355,977; personal, \$10,217,432, a decrease of \$3,030,068. Onondaga, valuation of real, \$103,248,842, an increase of \$1,002,462; personal, \$15,124,626, an increase of \$1,239,609. Oneida, valuation of real estate, \$56,815,559, a decrease of \$5,169,032; personal, \$13,163,598, a decrease of \$92,739.

Legislative Session.—The one hundred and twenty-third session of the Legislature began on Jan. 4, 1899, and continued until April 28. As elected, the Senate consisted of 27 Republicans and 23 Democrats, and the Assembly of 87 Republicans and 63 Democrats.

Timothy E. Ellsworth was continued as President *pro tem.* of the Senate, and Samuel F. Nixon was chosen as Speaker of the Assembly. The Legislature passed 900 bills, of which 471 were approved by the Governor.

Among the more important measures enacted were the following, which were approved by the Governor:

Changing the title of the office of Capitol commissioner to State architect.

Providing that the highest rank on the Governor's staff shall be colonel.

Amending the insurance law by providing that the provisions of that act pertaining to the making of special deposits by domestic life insurance companies with the State Superintendent of Insurance and the registration of insurance com-

panies and annuity bonds of such corporations by the State Insurance Department shall apply to life insurance corporations organized on the stipulated premium plan.

Amending the insurance law by providing that companies operating on the stipulated premium plan shall maintain upon all their outstanding policies or certificates a reserve fund of not less than one annual net premium for a one-year term insurance computed upon the actuaries' table of mortality, with interest at 4 per cent. per annum, at the last age attained prior to the date of the valuation.

Permitting casualty insurance companies to engage in the business of insuring mercantile credits.

Providing for the appointment of an additional State race-track inspector to superintend the collection of the racing fees required by law from the trotting clubs that conduct race meets in the eastern district of the State.

Authorizing the levy of a State tax of 0.07 of a mill for extraordinary repairs to the canals, and authorizing the Comptroller, in anticipation of that tax, to borrow \$350,000.

Extending the period from two weeks to one month for the service of notices of tax collectors.

Amending the act taxing the transfers of property by providing that an appraisal of such property shall be made at its market value at the time of the transfer.

Providing that a certificate of a United States census officer as to the population of any political division of the United States shall be received as *prima facie* evidence in the courts of this State.

Prohibiting justices of the peace from holding court in a room where liquor is sold or in an adjoining apartment. The present law prohibits holding such courts in a building where liquor is sold.

Amending the State factory law providing for 50 deputy factory inspectors, of whom 10 shall be women, and for the better protection of employees in buildings used for manufacturing.

Providing that the filing of a certificate of consolidation of two companies with the Secretary of State shall be *prima facie* evidence in certain actions.

Exempting from jury duty licensed engineers of steam boilers.

Authorizing the Governor to remove county treasurers on charges, after due hearing has been given to the accused.

Amending the civil code relative to the discharge of a judgment against a bankrupt discharged from his debts.

Amending the penal code making it a misdemeanor for any person to sell air or spring guns to any person under twelve years of age.

Amending the code of civil procedure to allow correspondents in divorce suits to appear and defend themselves.

Providing that all moneys and jurors' fees forfeited shall be transferred and applied to the fund of the city or county from which they were taken on or before March 1.

Providing that justices of the peace shall keep docket books.

Amending the transportation corporation law to allow any company organized for the purpose of using electricity in cities, except in cities of the first class, to acquire its additional power of supplying steam to consumers from a central station or stations through pipes laid in the public streets of the cities, towns, and villages within this State.

Providing that no person shall be eligible to the office of justice of the municipal court after

March 1, 1899, unless he is a resident of the district for which he is elected or appointed or has heretofore served as a justice in such court.

Authorizing Supreme Court and county court judges to extend upon application of a lienor a mechanic's lien for a period of six months.

Providing that town clerks shall be among the persons designated to grant burial permits.

Amending the village law relative to imprisonment for nonpayment of penalties.

Amending the public-health law relative to the protection of potable water supplies.

Prohibiting the pollution of the waters of the Grass, Racquette, St. Regis, and Deer rivers, St. Lawrence County.

To prevent the adulteration of feeding stuffs, and providing for the official analysis and labeling of them.

Amending the State agricultural law by providing that boiled or process butter shall be branded with the words "renovated butter."

Providing for the branding of such as "process butter."

Providing that the canvass of the votes of soldiers and sailors absent at war shall be made on the seventh Tuesday after election.

Giving to Grand Army posts the control of public funds to be distributed to indigent veterans and their families.

Authorizing the city of Buffalo to pay the salaries of its employees while they are absent as soldiers during the war.

Authorizing State departments and institutions to pay salaries of employees while they are in the volunteer service of the United States.

Allowing veterans to sell at auction without a license.

Providing that beets raised and sold pursuant to the provisions of the State sugar-beet culture law shall be weighed by agreement of the buyer and seller at the station of shipment, the expenses to be paid by the buyer.

Authorizing town boards to make appropriations not to exceed \$500 in any one year for the erection of soldiers' and sailors' monuments.

Authorizing the Governor to appoint a commission of nine persons to have charge of the New York State exhibit at the Pan-American Exposition to be held in Buffalo in 1901.

Appropriating \$20,000 for continuation of work on the topographical map of the State.

Authorizing the acquisition of Watkins Glen by a commission appointed by the Governor.

Appropriating \$75,000 for the participation of the State in the Dewey reception.

Providing for the branding of all packages of fertilizers with weight, chemical composition, etc.

Repealing the law that required that all windows in tenement houses should be equipped with guards to prevent persons from falling out.

Providing for the licensing of all buildings or tenements used for manufacturing, and for the tagging of sweat-shop-made goods from other States.

Amending the banking law relative to co-operative building and loan associations, so that they may sell installment shares as a basis for making loans or advances on which the maximum number of payments may be definitely fixed.

Providing that any person who shall sell tickets for the benefit of any humane, benevolent, or charitable organization without obtaining the consent of its officers, or for any nonexistent organization of that character, shall be guilty of a misdemeanor; and making it a misdemeanor to interfere with any life-saving apparatus to the extent of damaging it.

Amending the stock-corporation law to provide that a domestic railroad corporation may increase or reduce its capital stock in the manner herein provided, notwithstanding any provision contained herein or in any general or special law fixing or limiting the capital stock that may be issued by it.

Amending the forest-preserve and land-purchase act to permit part payments to landowners releasing lands to the State under certain conditions to be imposed by the forest-preserve board.

Authorizing the United States Government to purchase in any city of this State one or more pieces of land, not exceeding two acres in extent, for the erection of a Government building.

Extending for five years from Dec. 31, 1899, the time allowed for the completion of all railways that have acquired one third of their right of way.

Authorizing the State Engineer and Surveyor to make a survey of Seneca lake and its outlet.

Repealing the bill of 1898 providing for the payment of bounties for the seizure of illegal fish nets.

Amending the fisheries, game, and forest law relative to the possession of quail killed on Long Island.

Providing that the section of the game law prohibiting the killing of meadow larks shall apply to Long Island, as it hereafter has to other parts of the State.

Authorizing the use of floating devices for shooting web-footed wild fowl in Gardiner's Bay, Long Island.

Amending the game law, providing that hares and rabbits shall not be hunted or possessed, except in that portion of Long Island embraced within the territory of Greater New York, except from Nov. 1 to Dec. 31.

Providing that in the counties of Alleghany, Livingston, Wyoming, Erie, Sullivan, Oneida, Orange, Schoharie, Montgomery, Fulton, Hamilton, Albany, Greene, Ulster, and Columbia hares and rabbits shall not be hunted or possessed except from Sept. 1 to Dec. 15 following, and prohibiting the use of ferrets in those counties.

Authorizing the distribution of \$98,000, collected from racing associations, among the organizations specified in the State agricultural law.

Providing for the better protection for bees from the disease known as foul brood.

Providing that fish shall not be caught for five years in the streams in Franklin and Clinton Counties that flow into the Chateaugay lakes.

Prohibiting fishing for pickerel, pike, perch, and bullheads through the ice of Loon lake, Steuben County.

Prohibiting the killing of partridge, woodcock, and quail in Rensselaer County until Sept. 1, 1903.

Prohibiting the transportation of more than 12 pounds of trout caught within the State to any point without the State.

Prohibiting until 1903 the catching of fish in East brook, West brook, Indian brook, and Finkle brook, Warren County.

Amending the fish and game law to provide as follows: "No salt-water striped bass less than 8 inches in length shall be intentionally taken from any of the waters of this State nor possessed; nor shall any person fish for or take any striped bass from the Hudson river with a net of any kind between the thirty-first day of March and the first day of July."

Amending the game law to allow the owner of any inclosed farm lands to kill hares and rabbits thereon at any time.

Amending the bass law to allow fishing in Jefferson County to begin June 9.

Also the following local measures for New York city were enacted:

Prohibiting the police from membership in a political organization.

Amending the New York building law relative to projection of buildings on the street.

Authorizing an additional appropriation by New York city of \$40,000 for the American Museum of Natural History.

Amending the Greater New York charter in relation to appropriations for charitable, eleemosynary, correction, or reformatory institutions.

Increasing the salaries of the New York city school-teachers.

Amending the charter of Greater New York relative to the consolidation of volunteer fire departments, and providing that on June 1 of each year in the borough of Richmond the treasurer of each engine company shall receive \$1,200, the treasurer of a hook-and-ladder company \$1,000, and the treasurer of a hose company and a patrol company \$1,000 each.

Authorizing a change in the plans of the East River Bridge.

Authorizing New York city to allow the present sheriff of the county such legal expenses as he may be put to, not exceeding \$5,000 a year, for three years after the expiration of his official term.

To place police matrons in Greater New York on the same plane as patrolmen as eligible for pensions.

Empowering the Municipal Assembly of New York city to regulate the use of every building now used, or hereafter to be used, as a hotel, in so far as the use thereof may involve the safety of the inmates in case of fire.

For the office of United States Senator to succeed Edward Murphy, Jr., Democrat, the nominees were Chauncey M. Depew by the Republicans and Edward Murphy, Jr., by the Democrats. A joint session was held on Jan. 18, when the vote was as follows: Depew, 111; Murphy, 83.

An extra session of the Legislature was convened on May 22, and continued until May 27. This session was called by the Governor for the purpose of preparing a substitution franchise-tax bill in place of the bill introduced in the Legislature, which he found to be defective. His message said: "I recommend the enactment of a law which shall tax all these franchises as realty, which shall provide for the assessment of the tax by the Board of State Tax Commissioners, and which shall further provide that from the tax thus levied for the benefit of each locality there shall be deducted the tax now paid by the corporation in question." An amended bill was duly passed, as well as one authorizing the expenditure of \$75,000 for the celebration of the return of Admiral George Dewey.

The Mazet Inquiry.—In consequence of a resolution introduced in the Assembly on March 29, declaring that it is "currently reported and generally believed that in the city of New York funds are being raised by levy upon the members of the police force, saloon and resort keepers, and by other contributions, for use in corruptly influencing legislation; that there is a lax enforcement of the laws in said city and in the counties included in said city; that corrupt and tyrannical methods have been resorted to in the enforcement of the same; and that the public funds of said city are being wasted in extravagant increases of official salaries and in other ways," a committee, consisting of Robert Mazet, chairman, Edward

H. Fallows, Benjamin Hoffman, Thomas M. Costello, Anthony J. Boland, Harris Wilson, and James B. McEwan, was appointed to investigate the said reports and charges, and all matters and things pertaining thereto. The commission convened in New York city on April 8, and, after selecting Frank Moss, John P. Clarke, and Francis E. Laimbeer as counsel, began their work by hearing witnesses in regard to the working of the Police Department. Nearly every branch of the municipal government received their attention, and many witnesses were heard, including Richard Croker. The failure of the commission to call Republican leaders before them led to the suggestion that the investigation was organized for partisan purposes. The report of the counsel was given to the public on Dec. 25, and early in 1900 a full report with testimony was submitted to the Legislature. The recommendations of the commission, as remedies for the existing abuses, are embodied in the following bills, which were introduced into the Legislature:

1. "To authorize the appointment of a commission to inquire into the local government of the city of New York and the charter thereof, and suggest legislation thereon." This bill provides that within thirty days after its passage the Governor shall appoint 11 persons as a commission to revise the charter, and said commission shall report to the Legislature by Jan. 15, 1901. The commission to have power to employ assistants, subpoena witnesses, books, and papers, to be given the power of a legislative committee, and the provisions of the code of civil procedure as to contempts made to apply to it.

2. "To amend section 410 of the Greater New York charter in relation to the Board of Public Improvement and the powers of borough presidents as members thereof." This bill confers upon the borough presidents power to vote on all matters in the Board of Public Improvements.

3. "To amend section 471 of the Greater New York charter in relation to the restriction on the power of the Commissioner of Water Supply to contract for the supplying or selling of water for public or private use or consumption." The bill requires the Commissioner of Water Supply before making any water contract to lay the full contract before and obtain the approval of the Board of Public Improvements, the Board of Estimate and Apportionment, and three fourths of all the members elected to the Municipal Assembly.

4. "To repeal chapter 942 of the laws of 1896, entitled 'An Act in relation to the supply of pure and wholesome water in certain counties of the State.'" This bill repeals the law under which the Board of Supervisors of Suffolk County can prevent the city from getting water in that county.

5. "To amend section 1528 of the Greater New York charter in relation to the printing of lists of officials in the City Record." This bill provides for the printing in January and July of a full list of all city employees, with their offices, residences, time of service, and salaries, and increase or decrease thereof, and provides that until such information is given to the supervisor of the City Record the head of the department offending shall not be paid his salary.

6. "To amend the Greater New York charter by repealing section 1527 thereof, relating to the publishing in the City Record of the registry of voters." As the election law now requires the Board of Police to publish in pamphlet form the registry, the retention of this section in the charter means an unnecessary duplication of work.

7. "To amend section 821 of the Greater New

York charter, relating to the regulation of the construction of piers and docks." This bill requires the Dock Board to purchase its tools, supplies, and material after public advertisement at public letting to the lowest bidder, as other departments are required to by sections 419 and 420 of the charter.

8. "To amend section 854 of the Code of Civil Procedure, in relation to compelling the attendance and testimony of a witness." This bill extends to a legislative committee sitting during the session or after the adjournment of the Legislature the power to invoke the prompt aid of the courts of record in aid of its process and authority.

Banks.—These are under the supervision of a State superintendent, who is appointed for three years and receives a salary of \$5,000. The incumbent during the year was Frederick D. Kilburn, whose term of office expired on May 9, and who was then reappointed to serve until 1902. His report for the year ending Sept. 30 shows that 7 new banks were organized in the year, with an aggregate capital of \$300,000. Four State banks were merged with other State institutions, one was converted into a national bank, another was merged with a national bank, and one went into liquidation. The aggregate capitalization of the 7 institutions which thus ceased to do business as State banks was \$1,193,500. There was a total increase of \$600,000 in the capital stock of 2 banks. The aggregate capital of the discount banks on Sept. 30, 1899, was \$29,545,700, a net decrease of \$293,500. The total resources of the institutions under the supervision of the department are as follow: Banks of deposit and discount, Sept. 20, 1899, \$372,982,538; savings banks, July 1, 1899, \$968,978,167; trust companies, July 1, 1899, \$722,356,523; safe-deposit companies, July 1, 1899, \$5,203,224; foreign-mortgage companies, Jan. 1, 1899, \$12,716,773; building and loan associations, Jan. 1, 1899, \$64,746,636; total, \$2,146,983,861; increase over 1898, \$322,434,231. The resources of the savings banks increased \$45,500,000 from January to July, which nearly equals the gain made by them during the entire year 1898, and the number of open accounts was augmented by more than 65,000 in the same time, whereas the increase in 1898 was 60,000. He also called attention to the fact that many startling disclosures had been made regarding extravagance in management and fraudulent operations of men who make a business of acquiring control of building and loan associations only to plunder and wreck them.

Insurance.—The insurance interests of this State are under the charge of a superintendent, who receives \$7,000 a year and holds office five years. The incumbent in 1899 was Louis F. Payn, whose term of office expires on Feb. 11, 1900. His report for 1898 shows that 185 fire, fire-marine, and marine insurance companies were doing business in the State, whose total assets were \$301,168,040, an aggregate increase of \$15,248,834. Their liabilities were \$133,840,776, an increase of \$4,627,288. The risks of these companies in force was \$20,216,898,434. The receipts were \$140,019,261; disbursements, \$132,338,978, an excess of \$7,680,282. The disposition of the receipts were: \$137,045,777 received in premiums, \$80,447,509 paid for losses, \$52,225,189 for expenses, and \$7,163,782 for dividends. The fire premiums received were \$19,864,031; fire losses paid, \$10,041,904; fire losses incurred, \$11,312,776. The amount of fire risks written in 1898 was \$3,830,230,868, as against \$3,625,411,110 in 1897, an increase of \$204,819,758. The amount of marine and inland

risks written in 1898 was \$539,231,482, as against \$507,118,954 in 1897, an increase of \$32,112,528. A statement of the income of the department shows: Total receipts, five years, \$999,551; received from foreign companies, \$839,288; received from New York State companies, licensed agents, and individuals, \$22,636; examination of companies and appraisal of property, \$137,586; total, \$999,551. Excess of receipts over expenses for the year was \$86,502.

Excise.—The collection of the excise dues is under the charge of a commissioner, who serves five years and receives a salary of \$5,000. The incumbent during the year was Henry H. Lyman, whose term of office expires on April 1, 1901. His report for the fiscal year ending Sept. 30, 1899, shows the total collections to have been \$12,643,593, and the Treasurer's fees to have been \$61,344, leaving a net balance for the fiscal year of \$12,582,248. Of this amount the State's share was \$4,231,231, and the cities' and towns' share \$8,351,017. The report further shows a large increase of business in every branch. Excise litigation included 453 legal proceedings, 361 of which pertain to the fiscal year. Many decisions have been made by the courts sustaining important and essential provisions of the law. More criminal convictions were secured under the law than in any previous year. Slot-machine gambling received special attention, and the efforts of the commissioner to rid the State of this nuisance from places selling liquor have been uniformly successful and satisfactory. The statistics of arrests for drunkenness and public intoxication show a decrease compared with previous years under the present law or under operation of the old excise law. This decrease since 1895 is 12,000, or 14 per cent., the percentage being a little less than the percentage of decrease in drinking places.

Health.—The account of vital statistics is under the supervision of a Board of Health, composed of Dr. S. Case Jones, President; Dr. Baxter T. Smelzer, Havana, Secretary; Owen Cassidy, Dr. Frederick W. Smith, Dr. William T. Jenkins, and Walter F. Wilcox, together with the Attorney-General, the State Engineer, and the Health Officer of the Port of New York, *ex officio*. The report for 1898 says 129,972 deaths have been reported, which is 3,894 more than in 1897. The delayed returns, not reported, numbered 733, making the death rate per 1,000 of population 18.10, the average of the past ten years being 18.25. The death rate of the maritime district was 20, against 18.90 in 1897, there having been about 3,500 more deaths. The infant mortality (under five years) was greater by 2,300 than in 1897, though relatively decreased, constituting 30.2 per cent. of the total, against 32.5 last year, and an average of 33.5. The zymotic mortality constituted 13.6 per cent. of the total, against 14 last year, and an average of 17.5. The decrease is confined to the urban communities. The number of deaths attributed to acute respiratory diseases was 16,350; consumption, 13,000; diarrheal diseases, 8,500; diphtheria, 2,612; grip, 2,500; typhoid fever, 1,810; whooping-cough, 1,155; measles, 837; scarlet fever, 825; cerebrospinal meningitis, 700; and malarial diseases, about 400. In connection with diphtheria the great decrease in mortality from this disease during the past three years, from 6,616 deaths in 1894 to 2,612 deaths in 1898, is noted. During 1898 the examination and tuberculin test of 1,874 cattle, of which 192 have been condemned and 64 of that number have been destroyed, was reported.

Education.—This department is under the supervision of a superintendent, whose term of

office is three years and who receives a salary of \$6,000. The incumbent during the year was Charles R. Skinner, whose term of office will expire on April 6, 1901. His report shows that the number of children of school age was 1,550,079 (an increase of 31,271), of which number 510,173 were outside of the cities. The number of children attending school was 1,179,351, of whom 458,819 live outside of the cities. There are 1,001 private schools in the State, an increase of 100. The number of children attending private schools was 161,708, an increase of 80,260. There were 33,992 teachers employed during the year, 17,876 of this number teaching outside of the cities. The increase in the number of teachers employed was 919. The average annual salary of teachers outside of the cities was \$318, and in the cities \$771. During the year \$16,484,646 was expended for teachers' salaries, an increase of \$1,328,368. Of the amount expended, \$11,534,571 was in the city schools and \$4,950,075 in those of the country districts. The total expenditures during the school year of 1899 were \$28,052,999, a decrease of \$422,881. The expenditures in the cities were \$20,854,544, a decrease of \$360,529, and in the country districts \$7,198,445, a decrease of \$62,351. The net decrease in the total amount of money expended for school purposes is caused by a falling off in the moneys expended for new building sites, furniture, and repairs. In 1898 \$8,611,548 was expended for such purposes, while in 1899 but \$6,417,915 was expended. This, combined with a decrease of \$23,269 in the expenditures for libraries, more than offsets the increase of \$1,328,368 in teachers' salaries, and produces the net decrease of \$422,881. On May 12 the superintendent made the following public offer: "I hereby offer, in behalf of the State of New York, free tuition in our State normal schools to 48 men and women of Cuba and Puerto Rico (24 from each island) who are willing to attend these institutions not less than two years for the purpose of fitting themselves for teaching, pledging that they will return to the islands and devote at least five years to active service in the public schools."

The annual report of the State Board of Regents shows that there were 31,499 students in 1899 in New York colleges, professional, technical, and other special schools, compared with 69,776 in New York high schools and academies. Also that there has been during the past year a decided advance in the standards of business education in New York State, and largely on account of the movement in this State there has been also a distinct increase in the interest taken in business education in other States.

Charities.—The charities are under the care of a board, whose annual report is prepared from the sworn statements filed by the treasurers or other responsible officers of the charitable institutions, societies, and associations subject to the board's supervision. William R. Stewart is president of the board. Subject to the provisions of the State charities law are 12 State charitable institutions, 8 schools for the deaf, 1 for the blind, and an institution for juveniles, mainly supported by State appropriations, and more than 1,000 other institutions, societies, and associations under private control, including hospitals, homes, dispensaries, orphan, and other asylums, reformatories, day nurseries, and general and special relief societies. The beneficiaries of these institutions aggregate more than 2,500,000, and the expense of their maintenance amounts to nearly \$22,000,000 annually. The number and classification of beneficiaries in institutions Oct. 1, 1898, were: Aged and friendless persons, 6,627;

almshouse inmates, 11,788; blind, 723; deaf, 1,721; dependent children, 31,090; disabled soldiers and sailors, 1,354; epileptics in almshouses, 193; epileptics in Craig Colony, 322; hospital patients, 9,622; idiotic and feeble-minded in almshouses, 1,085; idiotic and feeble-minded in State institutions, 1,288; juvenile offenders, 3,514; inmates of reformatories, 1,686; total, 71,013. The number of idiotic and feeble-minded of both sexes in idiot asylums is: Syracuse State Institution for Feeble-minded Children, 540; New York State Custodial Asylum for Feeble-minded Women, at Newark, 406; Rome State Custodial Asylum, at Rome, 342; New York City Institution, on Randall's island, 470. During the year ending Sept. 30, 1898, the number of poor for whom provisions was made was 1,913, as against 2,074 during the previous year, a decrease of 161. This left 86 in State almshouses Oct. 1, 1898, of whom 80 were males and 6 females. The per capita expenditure was \$14.62, against \$13.56 in 1897.

Prisons.—These are under the care of a superintendent, who holds office five years and receives a salary of \$3,000. The incumbent during the year was Cornelius V. Collins, whose term of office will expire on April 17, 1903. The criminal statistics for the fiscal year show that the number of convictions reported by county clerks in courts of record was 3,567, a decrease of 956. The number of women convicted in courts of record was 209, a decrease of 39. The number of convictions in special sessions courts reported by county clerks was 43,555, a decrease of 19,847. The number of women convicted in courts of special sessions was 3,055. The resolution of the Assembly appointing a committee on prison labor instructed its members particularly to inquire into the effect of the present system of convict labor upon free labor. The general conclusions of the committee were: 1. That the present system has not yet succeeded in furnishing employment for all the convicts in State prisons. 2. That the financial results are as yet inadequate and unsatisfactory. 3. That the labor classes of the State are not at the present time suffering from the competition of convict labor, as the same is carried out in the prisons and penal institutions of the State. 4. That the unsatisfactory results up to the present time will be in some degree obviated by greater experience and organization. 5. That the principle of the greatest diversification of industries, coupled with a complete supply for the special market for any line of goods manufactured, will best preserve the laboring classes from convict competition in the future. 6. That the industries in the penitentiaries and marketing of the products should be placed under the same control as industries in the State prisons. 7. That the cell systems of the three State prisons should be rebuilt by convict labor, and also that a new wall should be constructed at Sing Sing in the same manner. 8. That the policy of prohibiting by legislative enactment the employment of convicts upon certain industries should be discountenanced, and, generally, that if the present system be carried out faithfully and intelligently, and without interference, it will demonstrate within a few years the wisdom of those who caused its adoption, and will prove a better system of convict labor than has ever before been employed in this State.

Labor Statistics.—This department is under the charge of a commissioner, who receives a salary of \$3,000. The incumbents during the year were John T. McDonough, who, having become Secretary of State, was succeeded on Jan. 23 by John McMackin. The report for 1898 shows that

the total number of organizations reported to the bureau each quarter was: First quarter, 1898, 1,048; second quarter, 1898, 1,079; third quarter, 1898, 1,087. Of the 1,087 unions, 280 were in the building trades; iron and steel, 137; railroad (steam), 131; printing, binding, etc., 68; clothing, 62; and cigar, cigarettes, and tobacco, 54. The others vary from 3 to 36 unions. As to distribution, Greater New York shows the largest returns, with 40.4 per cent. of all the unions in the State. Following New York are Buffalo, 7.4 per cent.; Syracuse, 6 per cent.; Albany, 4.1 per cent.; Rochester, 3.9 per cent.; Utica, 2.7 per cent.; Troy, 2.3 per cent.; and Newburg, 2 per cent. The other cities and towns vary from 19 unions to 1. Of the 87 cities and towns represented, the 8 mentioned had 68.6 per cent. of all the organizations in the State. The total membership of both sexes of all unions at the end of the third quarter, 1898, was 171,067. In regard to distribution of membership by towns, Greater New York heads the list of cities and towns with 73.3 per cent., followed by Buffalo with 5.3 per cent.; Syracuse, 3.7 per cent.; Rochester, 2.6 per cent.; Albany, 2 per cent.; Utica, 1.3 per cent.; Troy, 1.3 per cent.; Newburg, 1 per cent. The other localities vary from 1,077 to 3 members. Of the 87 cities and towns represented, the 8 mentioned had 90.4 per cent. of the total membership. Of the organized wage workers in the State, the proportion of women in each quarter varies from 2.7 per cent. to 4.4 per cent. (an average of 3.7 per cent.), with a somewhat larger proportion in 1898 than in 1897. Women appear in any one quarter in but 8 industries, and of the total number from 75 to 86 per cent. in the different quarters (an average of 80 per cent. for all) are in cigars, etc., and clothing. After these two the only industries with any considerable representation of women are the printing, textile, and theatrical trades, the three containing in the various quarters from 11 per cent. to 20 per cent. (an average of 16 per cent.) of all the women. The report also discusses fully the frauds and impositions that are practiced upon immigrants.

Canals.—The canals are chiefly under the charge of the Superintendent of Public Works. On Dec. 2, 1898, George W. Aldridge, holding that office, was suspended, and on Jan. 16 John N. Partridge was confirmed as his successor. The report of the commission appointed by Gov. Black to investigate the canals apparently yielded testimony that showed acts of such character as to warrant the recommendation that they should be investigated by a grand jury. Accordingly Gov. Roosevelt, shortly after his inauguration, appointed Austen G. Fox and Wallace MacFarlane, of opposite political faith to the Superintendent of Public Works, to assist the Attorney-General in the institution and prosecution of such criminal proceedings as should be warranted by the testimony taken by the investigating commission. The Legislature appropriated \$20,000 to pay the expenses of the investigation. After several months they reported that criminal prosecutions were inadvisable and impracticable. In the absence of evidence of fraudulent collusion between the State officers and the contractors, the counsel concluded that the numerous instances of apparently unjustifiable favoritism to contractors and of improvident agreements reported by the commission could not be said to be criminal, though they did subject the State to a large pecuniary loss, and apparently showed grave delinquency on the part of those charged with the execution of the work. The delinquency shown justified public indignation, but it did not afford

ground for criminal prosecution. The report giving their reasons for their conclusions was transmitted, with the Governor's message, to the Legislature.

In his annual report on the State canals, covering the period between Jan. 18 and Sept. 30, Col. Partridge says: "On Feb. 1 the balance of the ordinary repair fund available for the last eight months of the fiscal year was \$126,913 less than for the year before, and there were outstanding bills aggregating upward of \$37,651. To meet this condition I at once cut the force of employees down to the minimum, and later increased the force during navigation season by the employment of only so many as were clearly shown to be needed. The results obtained were: The earliest opening of navigation (April 17), a small number of interruptions to navigation, a balance of \$2,061.76 at the end of the year, and no unpaid bills in the office, with the exception of several in dispute, aggregating \$776.64. The canals were closed officially on Dec. 1."

On March 8 Gov. Roosevelt appointed a commission, consisting of Major Thomas W. Symonds, John N. Scattherd, George E. Greene, Frank S. Witherbee, and Gen. Francis V. Greene, with State Engineer and Surveyor Bond and State Superintendent of Public Works Partridge, for the purpose of formulating a definite canal policy for the State, and to submit a report to form the basis of recommendations to the next Legislature, with a view of finally disposing of the canal question. The field of inquiry was unlimited by the Governor. It included: Whether the present improvement plan, which has been suspended, providing for the deepening of the Erie and Oswego Canals to 9 feet and the Champlain Canal to 7 feet, should be carried to completion, and the cost of the same; whether a large canal should be constructed from Albany to Oswego, and the western section of the Erie closed; whether it is wisest to turn the canals over to the National Government for a ship water way, and to what extent the railroads have taken the place of the canals. In answer, the commission recommended that the deepening of the Oswego and Champlain Canals be completed at a cost of \$2,642,120; that the present canals be maintained and enlarged; and said the project of a ship canal is a subject for consideration by the Federal Government.

Fisheries.—The commissioners in charge of this department are Barnet H. Davis, Edward Thompson, William R. Weed, H. S. Holden, and Charles H. Babcock. They reported that during the year the new hatchery at Constantia, on Oneida lake, was completed. It has a capacity of 125,000,000 eggs of the spring spawning fish and 35,000,000 eggs of the fall or winter spawning fish, such as whitefish or ciscoes. The following is the distribution from each hatchery: Adirondack, 508,060 brook trout, 147,140 brown trout, 23,000 rainbow trout, 130,000 lake trout, 3,250,000 brook trout, 1,000 red-throat trout, 18,300,000 whitefish, 65,000 fresh-water shrimp; Clayton, 15,000,000 ciscoes, 5,800,000 whitefish, 115,100 large-mouth black bass; Chautauque lake, 2,650,000 muscalonge; Oneida, 50 pickerel, 17,550,472 pike perch, 1,350 small- and large-mouth black bass, 2,562,800 yellow perch; Cold Spring, 466,000 brook trout, 93,835 brown trout, 44,485 rainbow trout, 48,000,000 tomocods, 48,000,000 smelt, 6,550,000 lobsters, 1,214,800 shad; Catskill, 1,500,000 herring, 3,882,000 shad; donated to State waters by the United States Fish Commission, 5,800,000

shad; Fulton Chain, 790,750 brook trout, 55,000 brown trout, 199,000 lake trout, 1,500,000 frost-fish; Pleasant Valley, 295,250 brook trout, 120,800 brown trout, 75,400 rainbow trout, 29,000 lake trout; Sacandaga, 858,000 brook trout, 90,000 brown trout, 187,000 lake trout, 1,035,000 frost-fish.

Railroads.—This department is cared for by three commissioners, each of whom serves five years and receives a salary of \$8,000. Those holding office during the year were Ashley W. Cole, George W. Dunn, and Frank M. Baker. The total number of passengers carried by the steam surface railroads for the year ended June 30, 1899, was 149,926,184, an increase of 672,925. This includes passengers not carried in this State. The number carried in the State was 68,720,642. The gross earnings of steam surface railroads for the year were \$5,977,508.39 in excess of those of the previous year. The operating expenses were \$2,855,613.34 in excess of those of 1898, making the net earnings from operations \$3,121,895.05 more than in 1898. The income from other sources was \$2,034,990.89 in excess of 1898. The companies paid in taxes \$506,051.74 more than in 1898, and declared dividends \$534,692.90 in excess of those declared in 1898. Capital stock increased \$8,977,400 over that of 1898, and funded debt increased \$11,983.01 over 1898. The percentage of dividends to capital stock was 2.43, as compared with 2.39 in 1898. Four more persons were killed on steam surface roads in the State in 1899 than in 1898, but the number of persons injured was 181 fewer. The total number of accidents on steam surface railroads in which persons were killed or injured during the year was 2,030—704 persons were killed and 1,326 injured. Three employees were killed and 9 injured through catching feet in frogs and guard rails. The number of persons carried on the street surface railroads, including the few remaining horse railroads, during the year, including "transfers," was 920,365,560, an increase over 1898 of 71,054,890. One hundred and twenty-six persons were killed and 589 wounded. The total number of passengers carried by the elevated roads in New York and Brooklyn during the year was 213,248,419.

Forest Preserves.—According to the report of Verplanck Colvin, superintendent of the Adirondack Survey, the total amounts of land owned by the State in forest counties are as follow: Clinton, 14,106.32; Delaware, 6,455.50; Essex, 208,729.47; Franklin, 88,868.64; Fulton, 17,061.87; Greene, 507.50; Hamilton, 437,692.65; Herkimer, 123,629.71; Lewis, 3,008; Oneida, 3,013.70; Saratoga, 8,221.90; St. Lawrence, 27,451.66; Sullivan, 293.90; Ulster, 33,038.90; Warren, 84,314.81; total, 1,056,444.53. The purchases made recently are: Essex, 24,513 acres; Franklin, 24,909; Hamilton, 150,438; Herkimer, 40,305; and Warren, 16,467. A large additional area is under contract for purchase, but title has not been perfected. The lands contracted for are as follow: In Essex County, 310 acres; Hamilton, 16,545; Herkimer, 2,160; Warren, 1,154; total areas, 20,169 acres. At the last regular session of the Legislature a preliminary bill was passed, which has become a law, under which commissioners have been appointed to make a survey of Watkins Glen and such adjacent woodlands on either side as they may deem desirable to have embraced in a proposed park. They are to ascertain the prices at which the Glen and other properties can be purchased, and report their proceedings to the next Legislature for final action.

National Guard.—The charge of the State militia is with the Adjutant General, who is chief

of the Governor's staff. The incumbent during the year was Avery D. Andrews, whose resignation was offered at the close of the year, and on Dec. 26 Edward M. Hoffman was appointed his successor. Gen. Andrews's report says: "The system of staff administration adopted by the State of New York, while entirely new in this country, bears a general similarity to the staff organization of many of the armies of Europe, there known as the general staff. The Adjutant General, as chief of staff to the commander in chief, becomes the directing agency not only of the line, but of the staff, thus insuring harmony and co-ordination of action. Under the military code the major general commands the National Guard and the captain commands the Naval Militia, and to them and to their subordinate commanders has been given the fullest authority and the most cordial support in all matters relating to the drill, instruction, discipline, and command of their troops, while to their staffs and to the staffs of the various brigades and regiments have been assigned the duties relating to their various offices. The National Guard consists of 15 regiments and 5 battalions of infantry, 4 troops of cavalry organized into a squadron of 3 troops, and 1 separate troop, 4 batteries of light artillery, and 4 mounted signal corps. These are organized into 5 brigades, each commanded by a brigadier general, and the whole under the command of a major general. The organization closely resembles that of a division. The separate companies throughout the State (with the exception of the Seventeenth, at Flushing) have been organized into battalions and regiments, with headquarters in convenient localities. The Naval Militia consists of 2 battalions and 1 separate naval division, all under the command of a captain." According to the annual report of Major-Gen. Charles F. Roe, commanding officer of the National Guard of the State of New York, the strength of the National Guard, as reported on Sept. 30, 1899, was 795 officers and 13,439 enlisted men.

Historian.—The State Historian has charge of the historical records. The incumbent during the year was Hugh Hastings. His fourth annual report was largely devoted to the work of New York regiments during the war with Spain, including a brief sketch of the policy pursued in securing information and reports from the different organizations. A chapter described the manner in which the colors of the One Hundred and Fourth New York Volunteers (Wadsworth Guards), lost during the civil war, were recovered. The regiment lost two sets of colors, one at Gettysburg, on Seminary Ridge, on July 1, 1863, and the other at the Weldon Railroad, Aug. 19, 1864. The colors lost at Gettysburg were found in the War Department in Washington, and by special act of Congress were restored to New York and deposited in the Bureau of Military Records. The State Historian recommended that Congress should be requested to return to New York the 12 remaining battle flags that were captured from State organizations during the civil war, and that were subsequently found in Richmond, Va., at the close of the war. On Jan. 12 the State purchased 33 acres of land on Stony Point peninsula, on the Hudson river, in Rockland County, the scene of Anthony Wayne's capture of Stony Point from the British army in the War of the Revolution. The purchase was made on recommendation of the Society for the Preservation of Scenic and Historic Places and Objects. The price paid was \$21,500, and the land was bought from the estate of Frederick Tompkins and from Watson Tompkins.

Topography.—The United States Geological Survey completed the mapping of nearly half of the area of the State during the year. Seven topographic parties were sent to New York early in the spring, and have been actively at work ever since. The surveying was under the joint supervision of the State and Federal authorities—the New York Legislature appropriated \$20,000 and the director of the Geological Survey an equal sum. During the summer the topographers mapped enough ground to make up 15 atlases, covering the counties of Wayne, Oswego, Ontario, Seneca, Yates, Tioga, Madison, Albany, Dutchess, and Orange. The neighborhood of the Fulton chain of lakes, the Racquette and Blue mountain lakes in the Adirondacks, and the regions about Northville, Saratoga, and Lucerne were also surveyed. This work will all be reproduced on maps at the scale of one mile to an inch. When they shall have been completed the Geological Survey will have maps of the main highways, of the Hudson river, the territory along the routes of the New York Central Railroad and the Erie Railroad, the watershed for the supply of the Erie Canal, including nearly all of the big lakes in central New York, embracing a large part of the Mohawk river branches in the Adirondacks. The survey has also completed nearly all the international border lakes—Ontario and Erie—leaving only a portion of the St. Lawrence to be filled out. These maps are executed in wonderful detail, and are the most complete and finest made in this country. In the country districts every house is indicated, as well as all public and private roads, town and county boundaries, all streams, lakes, and ponds, railways (electric and steam), streets, and other highways. In the mountains the various trails and paths are shown, and every block in each of the larger cities is clearly reproduced.

Political.—The usual election was held in November, on which occasion candidates for 7 vacancies in the 4 judicial districts were voted for. The nominees were as follow: Democratic—First District, George C. Barrett, James A. O'Gorman; Fifth District, Howard C. Wiggins; Sixth District, Albert H. Sewell; Eighth District, John Cunneen, Charles F. Tabor, and Louis Braunlein. Republican—First District, George C. Barrett and Joseph F. Daly; Fifth District, William S. Andrews; Sixth District, Albert H. Sewell; Eighth District, Daniel J. Kenefick, Truman C. White, and Warren B. Hooker. Prohibition—First District, Charles E. Manierre and Thomas Drew Stetson; Sixth District, Steven M. Wing; Eighth District, Dexter D. Dorn and Walter T. Bliss. Socialist Labor—First District, John J. Kinneally and Thomas Wright; Fifth District, Frank W. Roberts; Sixth District, Edward C. Elston; Eighth District, Max Forker, James A. McKenzie, and James W. Sharpe. The election resulted in the choice of the following candidates: First District, George C. Barrett and James A. O'Gorman; Fifth District, William S. Andrews; Sixth District, Albert H. Sewell; Eighth District, Truman C. White, Daniel J. Kenefick, and Warren B. Hooker. There was also an election in the Thirty-fourth Congressional District to fill the vacancy caused by the resignation of Warren B. Hooker, who had been nominated as a Supreme Court justice. Edward B. Vreeland, Republican, and Stillman E. Lewis, Democrat, were the opposing candidates, and the former was elected by a vote of 21,733 against 12,406 for Lewis. The following four amendments were also voted for, all of which were carried by large majorities: 1. Giving to the New York Municipal Assembly the powers of a

Board of Supervisors. 2. Relative to the increase of the bonded indebtedness of municipalities (relating solely to New York city). 3. Authorizing the Governor to appoint additional justices of the appellate division benches. 4. Authorizing the Governor to designate additional justices of the Court of Appeals.

NEW YORK CITY. Government.—The city officials who held office during the year were: Mayor, Robert A. Van Wyck (salary, \$15,000); President of the Council, Randolph Guggenheimer (salary \$5,000); Borough Presidents, Manhattan, James J. Coogan (salary, \$5,000), who succeeded, on Jan. 5, to the place made vacant by the death of Augustus W. Peters; Brooklyn, Edward M. Grout (salary, \$5,000); Bronx, Louis F. Haffen (salary, \$5,000); Queens, Frederick Bowley (salary, \$3,000); and Richmond, George Cromwell (salary, \$3,000), all of whom are Tammany Democrats and took office on Jan. 1, 1898, except Mr. Coogan. Also there are the following county officers: County Clerk, William Sohmer (salary, \$15,000); Sheriff, William F. Grell (salary, \$12,000 and half the fees); and Register, Isaac Fromme (salary, \$12,000), all of whom are Tammany Democrats and took office on Jan. 1, 1898, except the sheriff, who took office on Jan. 1, 1900.

Finances.—The conditions of the debts of the city of New York, including the boroughs of Manhattan, the Bronx, Brooklyn, Queens, and Richmond, Jan. 1, 1900, is shown on the next page.

In the year bonds and corporate stock of the city were issued as follow: For public buildings, \$10,108,974.28; for public parks, \$1,880,715.08; for bridges, \$3,345,823.66; for repavement of roads and drives, \$567,740; for water supply, \$3,749,343; for docks, \$3,000,000; for condemnation of rear tenements, \$11,241.16; for street openings, \$1,923,728.77; for refunding matured loans, \$1,683,800.73; for local improvements, \$61,514.65; for memorial arch, \$5,000; for Wallabout basin, \$100,000; for Street Cleaning Department, \$400,000; for Fire Department, \$300,000; special revenue bonds, \$3,170,311.35; a total of \$30,308,190.68. The tax rate confirmed by the Municipal Assembly on Aug. 2 was for Manhattan and Bronx, \$2.48 for each \$100 of assessment. The rate for 1898 was \$2.01. For Brooklyn the rate was \$2.36, Queens, \$3.27; and Richmond, \$2.42.

Bonds.—On April 4 the Municipal Council passed the resolution authorizing the issue of \$500,000 in bonds for tearing down the reservoir at 42d Street and Fifth Avenue, and doing the subsurface work on the foundations of the New York Library Building. On Aug. 9 the Council passed the resolution authorizing the issue of \$2,100,000 in bonds for the erection of a new Hall of Records. The vote of President Guggenheimer was required to make the necessary majority, but as he was Acting Mayor his right to vote was questioned. His action was sustained by the Corporation Counsel, and the corporation issued the bonds.

Board of Estimate and Apportionment.—This body consists of the Mayor, the President and Secretary of the Department of Taxes and Assessments, the Comptroller, the President of the Council, and the Corporation Counsel. This board allowed the following-named amounts for 1900: The Mayoralty, \$63,755; Municipal Assembly and City Clerk, \$200,052; Department of Finance, \$779,305; interest on city debt, \$10,094,197.54; interest on bonds and stocks to be issued after Oct. 10, 1899, and in 1900, \$884,180.74; interest on revenue bonds of 1900, \$729,166.67;

HOUSES OF MRS. WILLIAM ASTOR AND JOHN JACOB ASTOR.
5th Avenue and 65th Street.

HOUSE OF COLLIS P. HUNTINGTON.

A. FUNDED DEBT OF THE CITY OF NEW YORK AS NOW CONSTITUTED, ISSUED SUBSEQUENT TO JAN. 1, 1898.

1. Payable from the sinking fund of the city of New York under the provisions of section 208 of chapter 878 of the Laws of 1897....	\$41,298,888 92	
2. Payable from the water sinking fund of the city of New York under provisions of section 10, Article VIII, of the Constitution of the State of New York, and under section 208 of chapter 878 of the Laws of 1897....	6,899,843 00	
3. Payable from taxation....	3,170,311 85	
4. Payable from assessments....	999,988 78	\$52,368,432 00

B. FUNDED DEBT OF THE CITY OF NEW YORK AS CONSTITUTED PRIOR TO JAN. 1, 1898.*Boroughs of Manhattan and the Bronx.*

1. Payable from the sinking fund for the redemption of the city debt (first lien) under ordinances of the Common Council.....	\$1,827,300 00	
2. Payable from the sinking fund for the redemption of the city debt (second lien) under the provisions of section 218 of chapter 878 of the Laws of 1897.....	9,700,000 00	
3. Payable from the sinking fund for the redemption of the city debt under the provisions of section 229 of chapter 878 of the Laws of 1897.....	108,451,668 75	
4. Payable from the sinking fund for the redemption of the city debt under the provisions of section 1 of chapter 79 of the Laws of 1899....	9,833,100 00	
5. Payable from the sinking fund for the redemption of the city debt No. 2 under the provisions of the constitutional amendment adopted Nov. 4, 1894, and of section 10, Article VIII, of the Constitution of the State of New York.....	41,977,000 00	
6. Payable from taxation....	35,390,460 00	
7. Payable from assessments....	9,332,536 21	216,408,044 96

C. FUNDED DEBTS OF CORPORATIONS IN THE BOROUGH OF BROOKLYN, INCLUDING KINGS COUNTY, ISSUED PRIOR TO JAN. 1, 1898.*City of Brooklyn, including Annexed Towns.*

1. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 488 of the Laws of 1880 and amendments thereto.....	\$8,697,000 00	
2. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 573 of the Laws of 1880 and chapter 448 of the Laws of 1881.....	2,350,000 00	
3. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 648 of the Laws of 1898.....	7,065,567 41	
4. Payable from the water revenue under the provisions of chapter 208 of the Laws of 1889, and acts amendatory thereof and supplementary thereto....	14,132,749 75	
5. Payable from taxation....	24,705,173 98	
6. Payable from assessments....	6,422,343 00	

Kings County.

7. Payable from taxation....	14,807,393 88	77,680,235 98
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D. FUNDED DEBTS OF CORPORATIONS IN THE BOROUGH OF QUEENS, ISSUED PRIOR TO JAN. 1, 1898.

1. Payable from the special sinking fund of Long Island City for the redemption of revenue bonds under the provisions of chapter 782 of the Laws of 1895....	\$380,500 00	
2. Payable from the sinking fund under the provisions of chapter 122 of the Laws of 1894.....	35,000 00	
3. Payable from water revenue.....	735 000 00	
4. Payable from taxation....	6,335,483 85	
5. Payable from assessments....	1,341,234 17	8,767,217 52

E. FUNDED DEBTS OF CORPORATIONS IN THE BOROUGH OF RICHMOND, INCLUDING RICHMOND COUNTY, ISSUED PRIOR TO JAN. 1, 1898.

Payable from taxation.....	\$2,961,386 70	2,961,386 70
Total funded debt.....		\$358,104,307 11

TEMPORARY DEBT.

Issued in anticipation of taxes of 1898.....	\$7,600 00	7,600 00
Total bonded debt.....		\$358,111,907 11

SUMMARY.

Total gross funded debt....		358,104,307 11
Less amount held by the commissioners of the sinking fund on account of sinking fund No. 1.....	\$80,642,958 74	
Less amount held by the commissioners of the sinking fund on account of sinking fund No. 2.....	17,980,863 27	
Less amount held by the commissioners of the sinking fund on account of sinking fund of the city of Brooklyn.....	6,524,065 69	
Less amount held by the commissioners of the sinking fund for account of the sinking fund of the city of New York.....	227,000 00	
Less amount held by the commissioners of the sinking fund for account of the water sinking fund of the city of New York.....	100,000 00	
Less amount held by the special sinking fund of Long Island City for the redemption of revenue bonds....	11,000 00	105,435,871 70

(The remainder of bonds (\$519,000) held by this fund are not yet approved, and are not included in the foregoing statement.)

Net funded debt.....	\$252,654,435 41
Revenue bonds.....	7,600 00
Net bonded debt.....	\$252,672,035 41

redemption of the city debt, \$4,576,561.76; installments payable in 1900, \$3,362,511.59; rents, \$315,379.91; borough officers, \$51,300; the Law Department, \$399,758; Board of Public Improvements, \$239,500; Department of Highways, \$2,251,844.67; Department of Sewers, \$803,173.17; Department of Bridges, \$431,957; Department of Public Buildings, Lighting, and Supplies, \$3,819,683.75; Department of Water Supply, \$1,442,914.17; Department of Parks, \$1,825,113.45; Department of Public Charities, \$1,896,812.97; Department of Correction, \$762,775; Department of Health, \$1,055,515; Police Department, \$11,327,503.42; Bureau of Elections, \$665,000; total, Police Department, \$11,992,503.42; Department of Street

Cleaning, \$5,031,282.27; Fire Department, \$4,840,676.52; Department of Buildings, \$546,525; Department of Taxes and Assessments, \$334,450; Board of Assessors, \$42,700; Department of Education, \$14,504,111.09; College of the City of New York, \$200,000; Normal College, \$175,000; total, Department of Education, \$14,969,111.09; Coroner's office, \$165,150; Commissioners of Accounts, \$156,000; Civil Service Commission, \$76,000; Board of City Record, \$460,200; Bureau of Municipal Statistics, \$11,200; Examining Board of Plumbers, \$3,594; for library purposes, \$214,779.30; courts, \$960,050; charitable institutions, \$2,857,084.27; miscellaneous, \$549,000; grand total, city budget, \$79,201,763.26; New York County, \$8,391,332.16; Kings County, \$2,613,663.40; Queens County, \$436,039.58; Richmond County, \$136,174.02; total of counties, \$11,577,209.22; grand total, city and counties, \$90,778,972.48.

The total budgets for all boroughs of New York city for 1899 aggregated \$93,520,082. The budgets for 1900 therefore show a decrease of \$2,741,109.52.

Taxes and Assessments.—These are under the care of a department of which Thomas L. Feitner (salary, \$8,000) is president. The other members are Edward C. Sheehy, Arthur C. Salmon, and Thomas J. Patterson (salaries, \$7,000 each). Office, 280 Broadway. They reported the total valuations of real and personal property for taxation at \$3,478,252,029, of which \$2,932,445,404 was for real estate and \$545,806,565 for personal property. The valuation for the real estate was subdivided as follows: Manhattan, \$2,054,903,875; Brooklyn, \$609,822,267; the Bronx, \$123,702,030; Queens, \$103,752,600; and Richmond, \$40,264,092; total, \$2,932,445,404, an increase of \$403,912,023 over last year. That for personal property was subdivided as follows: Manhattan, \$483,575,042; Brooklyn, \$45,270,713; the Bronx, \$6,806,988; Queens, \$6,314,032; and Richmond, \$3,838,890; total, \$545,806,565. Among the larger properties assessed are the following valuations: The Washington Building, 1 Broadway, \$1,250,000; Brown Brothers & Co., 59 Wall Street, \$650,000; the Sampson Building, 93 Wall Street, \$670,000; the Seamen's Bank for Savings, 74 Wall Street, \$425,000; the Hoyt Building, 44 Pine Street, \$390,000; the Metropolitan Telephone and Telegraph Company, 13-17 Dey Street, \$475,000; the Corbin Building, 192 Broadway, \$580,000; the Evening Post Building, 206 Broadway, \$525,000; the St. Paul Building, 218 Broadway, \$1,300,000; the Park Row Building, 13-19 Park Row, \$2,000,000; the Temple Court Building, 5-9 Beekman Street, \$850,000; the Vanderbilt Building, 132 Nassau Street, \$450,000; the American Tract Society Building, \$1,000,000; the Casino Theater, \$450,000; the Empire, \$260,000; Wallace's, \$575,000; the Waldorf Hotel, \$1,800,000; the Astoria, \$3,150,000; and the Murray Hill Hotel, \$650,000. Applications from William W. Astor, Bradley Martin, and others for the reduction of their personal property assessment on the ground of nonresidence (having removed to England) was denied by this board, and in consequence it was publicly announced later that Mr. Astor had become a citizen of Great Britain.

Law.—This department is under the direction of the Corporation Counsel, who receives \$15,000 a year. The incumbent during the year was John Whalen. His report was for the thirteen months previous to Jan. 31, 1899. He said of the bills introduced to the Legislature affecting the city, 402 were defeated, 7 were vetoed by the Governor, and 57 by the Mayor on representations of his office. Had these bills been enacted the

city's debt would have been increased \$48,000,000. The number of suits disposed of was 5,860, and 4,356 cases were begun. The judgments against the city aggregate \$1,305,000, and those in favor of the city, \$17,091.15. By the increased number of assistants which he was able to employ he was enabled to dispense with the services of high-priced experts, which resulted in a saving of \$217,035.71 in legal fees paid by the city.

The District Attorney, Asa Bird Gardiner, having been denied permission to enter any part of the Court of General Sessions during important procedures by the Recorder, sought redress in the Supreme Court. Later charges were preferred against him by members of the City Club, and a committee named by the Governor had them under consideration. On Nov. 9 Job E. Hedges was appointed by the Attorney-General of the State as Deputy Attorney-General, with charge of the prosecution of election law violations in the city. The new Courthouse for the Appellate Division of the Supreme Court, at Madison Avenue and 23th Street, was opened Dec. 20, 1899.

Surrogates' Court.—There are two surrogates in New York city, each of whom receives a salary of \$15,000 and serves for a term of fourteen years. At the beginning of the year Frank T. Fitzgerald and John H. V. Arnold were in office. In January, rumors of the inefficiency of the office having been circulated, the Assembly appointed a committee to investigate the manner in which the various judicial, clerical, and other duties were performed in the Surrogates' Court and office in New York. As this investigation was specially directed against Mr. Arnold, he soon resigned, and James M. Varnum was appointed to the vacancy on Feb. 15, and then held office until Dec. 31. Of 2,059 wills offered for probate in 1899, 121 were foreign and 1,835 were admitted to probate. Of the 112 wills contested, 90 have been decided, not including 18 that were unfinished on Jan. 1, 1899. The surrogates heard 4,402 motions and held 462 hearings in will contests, rendering 3,270 written decisions and 1,741 oral decisions. There were 87 hearings on issues of fact.

Public Improvement.—The Board of Public Improvements consists of the president of the board, Maurice F. Holahan (salary, \$8,000), the Commissioners of Water Supply, of Highways, of Street Cleaning, of Public Buildings, Lighting and Supplies, and Bridges, each of whom receives a salary of \$7,500. Offices, 15 Park Row. The reports for 1898 were issued during the year. That on water supply shows that the watersheds of Manhattan and the Bronx have an area of more than 360 square miles, and that there are 93 miles of conduits, with a maximum daily capacity of 400,000,000 gallons. In the Croton, Bronx, and Byram watersheds the reserve supply in 10 reservoirs and 5 lakes is more than 42,000,000,000 gallons. The total cost of the Croton, Bronx, and Byram systems to Dec. 31, 1898, was \$86,236,630.75, including, under the new aqueduct system, \$38,036,519.29 for the new aqueduct, reservoirs, lands, etc. The revenue was \$4,459,905.17. Brooklyn's watershed has an area of 154 square miles, and the supply is from the Hempstead reservoir and 15 ponds, with 1,283,480,000 gallons' capacity, and from streams and wells. The water revenues for Brooklyn were \$1,928,581.85. Part of the borough of Queens has public water plants and part private water companies. The receipts from water revenue were \$85,690.96. Richmond borough has a water plant at Tottenville with a daily capacity of 400,000 gallons; 52 supply wells with a capacity of 510,

HOUSE OF ISAAC V. BROKAW.
5th Avenue and 79th Street.

HOUSE OF CORNELIUS VANDERBILT, Sr.
5th Avenue and 68th Street

000 gallons, 5.1 miles of water mains, and 69 fire hydrants; and 2 private water companies with a daily capacity of 14,000,000 gallons. The water revenues of the borough were \$413.32.

The report of the Department of Highways shows that 38 contracts, involving \$356,726.49, were entered into, and that 84 contracts were completed at a cost of \$2,075,762.11. In the borough of Manhattan 18.49 miles of asphalt pavement, 1.91 mile of asphalt blocks, and 1.09 mile of granite pavement were laid. In the borough of the Bronx 40 miles of streets were paved, repaved, or repaired; and in the borough of Brooklyn 270,000 square yards of paving were laid.

The report of the Department of Street Cleaning showed that 1,623,041½ cart loads of refuse matter were collected in the boroughs of Manhattan and the Bronx, and 525,730 cart loads of snow and ice were removed. The expense incurred was \$3,366,879.48. In Brooklyn the refuse material collected amounted to 1,112,477 cart loads, and the snow and ice removed to 183,185 cart loads. The total expenditures were \$854,142.60. The collection of refuse and removal of snow in Brooklyn was done under contract. During the year hearings were held on the proposition of widening Pell Street to 100 feet from Chatham Square westward to Mott Street, with an extension from Mott Street to Mulberry Bend Park. The unfinished state of the Elm Street improvement was made the subject of an investigation by the August Grand Jury, and it was found that records in the Mayor's office show that ordinances providing for the grading, regulating, and paving of Elm Street through its entire length had been passed by the Board of Public Improvements and the Municipal Assembly and signed by the Mayor. But this work could not be done until the sewers had been laid. The sewer ordinances were faulty in form, and the Mayor vetoed them all on June 13. Ordinances were signed during the year changing the name of the Boulevard between 59th Street and Spuyten Duyvil to Broadway; also the name of Elm Street was changed to Dewey Avenue, and Whitehall Street to South Broadway. The name of Mail Street was changed to Van Cott Place.

Parks.—This department is under the charge of three commissioners, one having jurisdiction in Manhattan and Richmond, one in Brooklyn and Queens, and one in Bronx, each of whom serves six years and receives a salary of \$5,000. During 1899 the commissioners were: George C. Clausen, Manhattan and Richmond; George V. Brower, Brooklyn and Queens; and August Moebus, Bronx. The office is in the Arsenal, Fifth Avenue and 65th Street. According to the report for 1898 the city's total park area is: In Manhattan and Richmond, 1,288,287 acres; in Queens and Brooklyn, 1,573,378; in the Bronx, 4,057,890; total area for the city, 6,919,545 acres. The proposition to convert Coney Island into a park was considered, and two plans were submitted, as follow: The first was the purchase of that part of Coney Island embraced between the Ocean Boulevard and Sea Gate and between the ocean and Coney Island creek. The estimated cost of the land is \$9,000,000, while the improvements would cost about \$6,000,000 more. The other recommends the purchase of a strip 400 feet wide from Sea Gate to Ocean Boulevard, and includes the treating of Surf Avenue as a boulevard. This plan, which would be far less expensive than the other, would give a beach 250 feet wide, extending along a mile of ocean front; a board walk 50 feet wide, with broad steps leading to the beach; a bicycle path 15 feet in width, and

a driveway and promenade adjoining. This plan provides for 4 new recreation piers. The Commissioners of Estimate for the Colonial Park submitted their report to the Supreme Court on April 7, and the court heard argument on a motion to confirm. The park embraces the territory comprised between 145th and 155th Streets and Edgecombe and Bradhurst Avenues. There were 192 parcels of land to be appraised, and the commissioners fixed the values at sums that aggregate about \$1,500,000. Progress on the development of Grand Boulevard and Concourse—which, when completed, will run from 161st Street and Mott Avenue north to the city line—was stopped. About \$3,000,000 of the city's money had been expended in payment for land condemned, and in the near future a million more will be paid out. The plan shows a speedway 54 feet wide, with a sidewalk of artificial stone 15 feet wide, an asphalt driveway 24 feet wide, a macadam bicycle path 7 feet wide, and a promenade 18 feet on either side of it. Nearly 5,000 shade trees will be required. The estimated total cost is about \$14,000,000.

The visitors at the Aquarium in 1899 numbered 1,841,330, a daily average of 5,045—the greatest number of any year in its history. The excess of 1899 over 1898 was 171,245.

Zoological Park.—This is under the care of the New York Zoological Society, of which Levi P. Morton is president. It is in the Bronx, and is a splendid stretch of 261 acres. The present collection of animals includes 43 species of mammals (157 specimens), 36 species of birds (175 specimens), 1 species of alligators (16 specimens), 13 species of lizards (71 specimens), 18 species of turtles (94 specimens), 36 species of serpents (293 specimens), 10 species of batrachians (37 specimens), making a total of 157 species (843 specimens). The park was formally opened to the public on Oct. 8. It is open daily free to visitors from 10 A. M. till sunset, except on Mondays and Thursdays, when an admission fee is charged. The aggregate cost of all the buildings and animals' quarters thus far constructed and in process of construction was upward of \$90,000. The society collected \$49,760 for the park during the year, making a total of \$160,779 thus far obtained. The membership is 736.

Fire.—This department is managed by a single commissioner, who receives a salary of \$7,500. The incumbent during the year was John J. Scannell. The chief of the department on Jan. 1 was Hugh Bonner, who resigned on May 1, and was succeeded by Edward F. Croker. The headquarters are at 157 East 67th Street. In 1899, for the boroughs of Manhattan, Bronx, Brooklyn, and Queens there were 2,404 officers and men; 134 engine companies, including fire boats; 40 hook-and-ladder companies; 6 fire boats; and 4 water towers. There were in the year 8,050 fires; 33 arson cases were tried, of which 23 resulted in dismissal, 8 in conviction, and 2 are still pending. The receipts for licenses, permits, and penalties were: In the boroughs of Manhattan, Bronx, and Richmond, \$50,452.50; in the boroughs of Brooklyn and Queens, \$43,150.50; total, \$93,603. There is a volunteer force of 2,000 in Queens, and 1,500 in Richmond, making a total of 3,500.

Health.—The collection of vital statistics is under the care of a board consisting of the president of the Board of Health, the health officer of the port, and three commissioners, one of whom must have been for five years a practicing physician. The officials for 1899 were: Michael C. Murphy, president (salary, \$7,500); Dr. William T. Jenkins, Dr. John B. Cosby, Health Officer Dr.

Alva H. Doty, and President Bernard J. York, of the Police Board. The secretary of the board is Emmons Clark, and the office is on the corner of Sixth Avenue and 55th Street. The vital statistics were as follow: The number of deaths in 1899 was 65,218, against 65,864 in 1898. There were 23,750 deaths of children under five years, 15,364 under one year, 8,922 sixty-five years and over, 15,544 deaths in institutions, and 35,734 deaths in tenements. There were 77,648 births and 30,470 marriages reported. The number of deaths from pneumonia was 8,529, against 7,485 for 1898—more than from any other disease. There were 629 suicides, against 693 for 1898; and 131 homicides, against 115 in 1898. The death rates for the 5 boroughs are as follow: Manhattan, 18.49; Bronx, 22.61; Brooklyn, 17.56; Queens, 18.67; and Richmond, 18.79. The rate for the 5 boroughs together is 18.37. The statistics give the estimated population of the city for 1898 as 3,438,899; and for 1899, 3,550,053.

Police.—This department is managed by a board of four commissioners, appointed by the Mayor for a term of six years, each member of which receives a salary of \$5,000. The board during the year consisted of Bernard J. York, president; John B. Sexton, Jacob Hess, and Henry E. Abell. The chief of police is William S. Devery, and the Central Office is at 300 Mulberry Street. The report for 1898 shows the need of an increase in the number of patrolmen. In 1876, with a population of 1,075,532, there were 2,261 patrolmen, a proportion of 1 to 475; in 1896 the proportion was 1 to 525, and in 1899 (Greater New York) 1 to 555. The expense of the police departments of the territory afterward consolidated for 1897 was \$10,235,280.14. For 1898 the expenses of the consolidated city were \$10,705,764.91. In 1898 141,745 arrests were made, including 26,141 females. The causes of arrest were classified as follow: Intoxication, 46,170; disorderly conduct, 31,460; violation of corporation ordinances, 13,725; larceny, 8,824; vagrancy, 7,759; suspicious persons, 6,446; excise law violators, 2,128. Altogether arrests were made on 184 charges. Of those arrested, 70,865 were natives of this country, 23,304 were Irish, 11,950 Germans, and 9,156 Russians.

The report of the Bureau of Elections shows that the amount expended in 1898 to carry out the primary election law was \$223,282.50. The total expenditure for general elections was \$454,746.06. The result of the first year of consolidation upon the cost of a general election within Greater New York boundaries shows that in the items of salaries, storage, cartage, and ballots there will be a saving of one fourth.

Buildings.—The construction of these is cared for by a board consisting of three commissioners. During 1899 these were President and Commissioner of Manhattan and Bronx, Thomas J. Brady (salary, \$7,000); Commissioner of Brooklyn, John Guilfoyle (salary, \$7,000); and Commissioner of Richmond and Queens, Daniel Campbell (salary, \$3,500). Offices, 220 Fourth Avenue, Manhattan, and Borough Hall, Brooklyn. Their report for Manhattan and Bronx for 1899 shows an estimated expenditure of \$135,982,960, against \$78,484,627 for 1898. In 1899 there were 2,262 applications for building 4,933 new buildings at an estimated cost of \$128,798,576, against 2,083 applications for 3,592 buildings, costing \$72,887,146, in 1898. There were 2,854 applications for altering 3,350 buildings, at an estimated cost of \$7,184,384, against 2,137 applications for altering 2,308 buildings, costing \$5,597,481 in 1898. The new building code is responsible for a consider-

able part of these increased amounts, but, allowing this, the officials say that the year was the busiest in the history of the department.

Education.—The board having control of this subject consists of 21 commissioners, who are appointed by the Mayor and receive no salary. The president of the board on Jan. 1 was Charles B. Hubbell, but on Feb. 21 he was succeeded by Joseph J. Little. The borough superintendent is John Jasper (salary, \$7,500), and the headquarters were at 146 Grand Street until removed to the corner of Park Avenue and 50th Street. The report for the fiscal year of 1899 shows that the total number of schools and departments, not including the Nautical School, is 496; number of instructors or class teachers, 8,844; the number of principals, principals' assistants, and heads of departments not teaching, 650; the number of teachers of special branches, 300; the number of pupils registered, 385,474; the average daily attendance, 347,670; the number of regular sittings in school buildings, 407,423; the average number of pupils to a class teacher, 44. The expenditure for school purposes was \$15,316,865.48, of which \$1,219,049.14 was received from the State. The estimated school population is as follows: Manhattan and Bronx, 398,000; Brooklyn, 284,244; Queens, 33,000; Richmond, 14,172; total, 729,416, which is an increase of 27,254. The board, on Feb. 20, 1899, awarded a contract for a new schoolhouse in Manhattan, the first since consolidation, and since then contracts have been awarded for 8 other new school buildings and 4 additions in Manhattan and the Bronx, and for 3 new buildings and 8 additions in Brooklyn, involving a total expenditure of \$3,107,289. These buildings and additions have 547 classrooms, and accommodations for 27,300 pupils. Of the \$7,673,640 of corporate stock issued in March, Manhattan and the Bronx received \$4,083,640. During the school year 8 new school buildings were opened in Manhattan and the Bronx, containing 260 classrooms and accommodations for 12,000 pupils; 2 in Brooklyn, with 57 classrooms and accommodations for 3,037 pupils; 7 in Queens, with 35 classrooms and 1,400 seats; and 2 in Richmond, with 36 classrooms and 1,640 seats; making a total of 19 schoolhouses, 388 classrooms, and seating capacity for 18,077 pupils. In the latter part of the year much ill feeling and suffering was caused by the refusal of the Comptroller to pay the salaries of the teachers, and in explanation he said that "there will probably be considerable delay in paying the school-teachers of Manhattan and the Bronx the balance of the amounts due them for the year 1899. This is entirely due to the inability of the School Board to state how much of the amount claimed is due to the Ahern law."

Rapid Transit Railroad Commission.—This body consists of Alexander E. Orr, president; Woodbury Langdon, John Clafin, George L. Rives, John H. Starin, and Charles S. Smith, together with the Mayor and Comptroller *ex officio*. Mr. Clafin withdrew from the commission, and Morris K. Jesup was added to it. Office, 320 Broadway. At the beginning of the year the commission was at work on a bill to extend its power so that it could let a contract for building the underground road to a private corporation. On March 27 a proposition to provide rapid transit along the route and in the main according to the plans adopted by the commission was submitted. It was favorably received, and the commission directed its counsel to prepare amendments to the rapid transit law that would enable it to act on the bid, provided the

amendment should be adopted by the Legislature. The motive power proposed was electricity, and one of the important features asked for was a perpetual franchise. At the meeting held on March 29 the proposed memorial and amendments were considered, and ordered sent to the Legislature. At this meeting a resolution was adopted, which said: "It is the sense of this board that it is in the public interest that, in addition to the powers already possessed by the board, the Legislature should grant to the board the power to contract for the construction and operation of the rapid transit railroad by private capital." On April 3 another proposition was received by the commission for the building of an underground road, the essential features of which were that it should have a fifty-years' franchise and the city issue \$33,000,000 of bonds, which the builders agreed to pay and surrender the road free of incumbrance at the termination of the franchise. This proposition was not favorably considered, as it would be impossible for the city to issue the desired bonds. The bill passed the Legislature, and was submitted to the Mayor for his approval. It received a public hearing on May 3, at which much opposition came from the representatives of the laboring men, in consequence of which it was "not accepted by the city of New York." This veto by the Mayor put an end to the discussion of any appeal to private capital in behalf of rapid transit. Soon afterward the Mayor, by his public utterances, committed the present administration to begin the construction of an underground rapid transit railroad before it left office. In the autumn the plan of building the tunnel by the city began to take definite shape, and the form of a contract for the construction of the proposed underground railroad was prepared by the counsel of the commission and submitted to the Corporation Counsel for his opinion. On Nov. 10 the Supreme Court granted the commissioners power to reduce the bond to be given by the contractor for the construction of the underground tunnel from \$14,000,000 to \$5,000,000. At a meeting on Nov. 12 the commissioners took the final steps necessary to authorize the advertising of bids from contractors to build the road. Sealed bids were to be submitted on Jan. 15, 1900.

Street Railways.—In consequence of a report by the Board of Health that the droppings of water and oil from the elevated railroad were a nuisance and an annoyance to pedestrians, and that the pools beneath the tracks were a menace to the public health, the Park Department, on Feb. 17, served an order on the Manhattan Railway Company to remove the structure of the elevated railroad from Battery Park. A public hearing was held by the Board of Health on Feb. 23, at which time the Manhattan Company gave positive assurances that it would do its utmost to comply with the requirements of the Health authorities. The purchase by the Manhattan Railway Company of a large tract in the vicinity of 177th Street for the purpose of establishing a terminal indicates that it will extend its line to Yonkers. A traffic agreement between the Manhattan Railway Company and the Third Avenue and Union Railway Companies was entered into on May 1 by means of which a general city transfer system was established at the rate of three cents between the elevated and surface service. In consequence of this, for eight cents, a continuous ride may be had over the allied systems from any downtown point to Yonkers on the Hudson river, or to New Rochelle on Long Island Sound. The consolidation of the

Brooklyn street railway systems into the Brooklyn Rapid Transit Company resulted in the improvement of the transportation, and the establishment of a continuous service from Manhattan, over the bridge, to Coney Island for the single fare of five cents.

Bridges and Tunnels.—The report for the New York and Brooklyn Bridge, submitted to the Comptroller in March, shows that the receipts in 1898 were \$704,478.17, and the expenditures \$512,250.10. The tolls from the roadway amounted to \$76,261; from the bridge railroad, \$389,772.52; from electric cars, \$50,726.70; and from elevated railroads, \$45,528.25. It was found necessary to increase the toll paid by the trolley companies and the elevated companies, as an annual loss was suffered at the old rate. Much progress was made in the work on the East River Bridge, and the towers at the foot of Delancey Slip in Manhattan are well advanced. On Dec. 31 the Board of Aldermen voted in favor of the proposition to build a bridge between the foot of East 60th Street in Manhattan and Long Island City. Also a resolution was adopted at the same time for the construction of a bridge between Pike Slip, Manhattan, and Washington Street, Brooklyn.

On June 17 the Hudson River Tunnel, on which much work has been done, was sold for \$100,000 to attorneys representing the American bondholders. The Manhattan and Jersey City Railway Company announced their intention of building a tunnel under the Hudson river, the station in New York to be within 1,000 feet of Cortlandt Street, and that in Jersey City not far from Montgomery Street. The Metropolitan Tunnel Railroad Company was incorporated in July for the purpose of building tunnels to start from points near Willoughby and Fulton Streets, in Brooklyn, passing thence down Adams Street to the East river, then under the river bed to Manhattan Island, crossing the city under New Chambers and Chambers Streets to the Hudson River, and thence to some point in Jersey City. The New York and Long Island Terminal Railroad Company has for its purpose the connection of the boroughs of Manhattan and Brooklyn by tunnels, with the intention to run fast electric trains between downtown underground stations in Manhattan borough and the farthest limits of Brooklyn.

Monuments.—The Lorelei monument was erected on a knoll that rises above East 161st Street and Mott Avenue. It was unveiled with simple ceremonies on July 8, and was accepted for the city.

On July 14 a bronze statue of Chester A. Arthur, modeled by George E. Bissell, was unveiled. It is in the northeast corner of Madison Square, and was presented to the city in behalf of the committee by Elihu Root, who made the oration. Randolph Guggenheimer, president of the City Council, accepted the statue in behalf of the city.

On May 2 the Mary Washington Colonial Chapter of the Daughters of the American Revolution marked the first official residence of President Washington, at No. 1 Cherry Street, by the unveiling of a bronze tablet on one of the arches of the Brooklyn Bridge.

On Aug. 10 a bronze tablet, stating the fact that the Tower Building at 50 Broadway was the earliest example of the steel skeleton construction, was unveiled. Its erection was due to the Society of Architectural Iron Manufacturers.

Dewey Reception.—On May 16 the Municipal Assembly of the city of New York adopted a

resolution requesting the Mayor to appoint a representative committee of citizens for the purpose of making all necessary arrangements to give a fitting and patriotic reception to Admiral Dewey and the officers and crew of the flagship Olympia on their arrival in New York. The expenditure of \$150,000 to carry out a celebration programme was authorized by the Municipal Assembly on June 6. Subsequently by like appropriations \$50,000 more was obtained. A Citizens' Committee of 1,000 members was named by Mayor Van Wyck on June 17, and on June 21 that committee was organized with the Mayor as permanent chairman, and Alfred M. Downes as secretary. At that time the Mayor was authorized to appoint an Executive Committee of 150 members. This committee organized on June 26 with Gen. Daniel Butterfield as chairman; Tunis G. Bergen, vice-chairman; and Warren W. Foster, secretary. On June 30 Mayor Van Wyck, in behalf of the city, extended to Admiral Dewey, in a formal letter, a public reception and the hospitalities and courtesies of New York; and from Trieste, on July 24, came the reply from Admiral Dewey accepting the invitation. Later advices enabled the committee to arrange for a naval parade to take place on Sept. 29 and a land parade on Sept. 30; and the timely arrival of the Olympia on Sept. 26 made it possible to carry out these plans. Attendant features were the presentation by the city of New York of a loving cup to the admiral and the erection of a memorial arch. In order to do honor to Admiral Dewey, a proclamation was issued by Gov. Roosevelt, making Sept. 29 and 30 legal holidays. The preparation for the naval parade began on Sept. 28, when the North Atlantic squadron, then in the lower bay, moved up and anchored off Tompkinsville with Admiral Sampson's flagship, the New York, leading. The Olympia, with Admiral Dewey, followed the squadron, and, passing the fleet, took its place in the van as flagship of the squadron. Admiral Sampson then, with his staff, visited the Olympia and officially greeted the admiral. The entire Staten Island and Jersey coasts as far as Seabright and Long Island as far as Rockaway were illuminated with colored fires furnished by the committee. The first formal act on the 29th was a visit of Mayor Van Wyck, accompanied by the Plan-and-Scope Committee, to Admiral Dewey, when a welcome was extended to him in behalf of the city. At noon the naval parade started up Hudson river from the Government anchorage off Tompkinsville, with the Olympia in the lead, followed by the squadron, which in turn was followed by the merchant marine and flotilla of yachts. The latter was led by J. Pierpont Morgan's Corsair and Sir Thomas Lipton's Erin. The Olympia was escorted by the Sandy Hook, bearing the Mayor and official guests of the Citizens' Committee. Other vessels carrying the committees and city officials followed in the wake of the Mayor's boat outside the lines. As they reached a point in the river opposite Grant's tomb, the Olympia came to anchor in midstream, and in response to salutes fired from the tomb the naval vessels, with colors half-masted, fired the President's salute of twenty-one guns. The naval procession then passed the Olympia in review, and counter-sailed down the river until it disbanded below the Battery. At night fireworks were displayed from various points in Manhattan, Brooklyn, and Richmond, while on the water lighters started from opposite Grant's tomb, on the Hudson river, and from opposite Ward's island, on the East river, and moved

down, sending off fireworks on their way to the Battery, where they joined other lighters, and the pyrotechnic display continued. Unique and original electrical displays were conspicuous; and, most of all, the words "Welcome Dewey," in gigantic letters of light, 50 feet high and 300 feet long, displayed from the south end of Brooklyn Bridge. The culmination of the reception came on Sept. 30. Before seven o'clock in the morning the little police boat Patrol, containing a special committee to escort Admiral Dewey, ran alongside of the Olympia, and, taking the admiral on board, proceeded to the Battery, whence, escorted by Squadron A, they proceeded up Broadway to City Hall. At nine o'clock the loving cup* was presented to the admiral by the Mayor, whose address was briefly responded to by Admiral Dewey. At the close of these ceremonies the admiral was escorted back to the foot of Warren Street, where the Sandy Hook was in waiting to take him and other guests of the city and the city officials up the river to 133d Street. There the party were met by carriages, in the first of which Admiral Dewey and Mayor Van Wyck were placed, after which came the six captains of the war ships that had taken part in the battle of Manila Bay, and then the other guests with their escorts, forming a procession of 42 carriages. These were driven to the head of the parade at 122d Street and Riverside Drive, where at eleven o'clock sharply the procession began. The line of march was down Riverside Drive to 72d Street, thence to Eighth Avenue, down to 59th Street, to Fifth Avenue, and thence to Washington Square. The procession consisted of the representatives of the United States navy, including the crew of the Olympia, after which came the United States army, then the National Guard of New York, followed by the National Guards of other States, and finally other uniformed bodies. It was estimated that more than 30,000 men were in line. At 23d Street Admiral Dewey, with the Mayor and committees and visitors, left the procession, and took their places on the stand and reviewed the line of march. When the procession was over, Admiral Dewey was driven to the Waldorf-Astoria, escorted by Troop A, apartments having been reserved for him at that hotel, where he remained until he left for Washington. In the evening the sailors of the Olympia were entertained at the Waldorf-Astoria by a vaudeville smoker. The memorial arch, the original suggestion of which came from Charles R. Lamb, was on Fifth Avenue, opposite 24th Street, and was designed by a committee of the National Sculpture Society, composed of John Q. A. Ward, chairman; Karl Ritter and F. Wellington Ruckstuhl, sculptors; Charles R. Lamb, architect. In general, this arch was a copy of the Arch of Titus and Vespasian in the Forum at Rome, which was erected by

* The loving cup was of gold, 18 carats fine, 13 inches in height, with a capacity of 4 quarts. The form of the cup was Roman, and the handles were three green golden dolphins. They divided the cup into three panels. The front panel was decorated with a relief portrait of the admiral framed in an oak wreath. The frame rested on the outstretched wings of an eagle. Under this panel on the band that ran round the foot of the cup were the letters "G. D. U. S. N." Between the next two handles was a half-relief picture of the flagship Olympia. Under it was a shield bearing the four stars that denote the rank of the admiral. The commemorative inscription was: "Presented to Admiral George Dewey, United States Navy, by the City of New York, September thirtieth, eighteen hundred and ninety-nine. Beneath this were the coat of arms of the city of New York. About the upper circumference of the cup was a row of 45 stars. Around the foot were anchors, small dolphins, seaweed, knotted ropes, and other nautical devices. The cup cost \$5,000.

Domitian in commemoration of the taking of Jerusalem by Titus. It stood 75 feet above the street, and was surmounted by a Quadriga and Victory by J. Q. A. Ward; the distance to the garland in the hand of Victory being about 100 feet. The span of the arch inside was about 30 feet from pier to pier. The four groups on the piers, two on the north and two on the south side, were: Call to Arms, by Philip Martiny; Battle, by Karl Ritter; Return of the Victors, by C. H. Niehaus; Peace, by Daniel C. French. On the attic were full-length statues of Paul Jones, by E. C. Potter; Hull, by H. K. Bush-Brown; Perry, by J. Scott Hartley; Decatur, by George L. Brewster; McDonough, by Thomas S. Clarke; Farragut, by W. O. Partridge; Porter, by J. J. Boyle; and Cushing, by Augustus Lukeman. Also medallion heads of the following naval heroes: Commodores John Barry, Esek Hopkins, Dahlgren, Worden, Lawrence, Bainbridge, Preble, and Foote, by various artists. The symbolical figure in the north spandrels was the Atlantic and Pacific, by R. H. Perry; in the south, the North and East Rivers, by Isidor Konti. Over the keystones to the arch were American eagles, by A. P. Proctor; and in relief on the sides of the arch were the groups Progress of Civilization, by John Gelert, and Protection of Our Country, by William Couper. The legend on the north side of the attic was:

"To Admiral George Dewey,
Greeting, welcome, honor,
From the people of New York,
September XXX, MDCCCXCIX."

On the south side was the inscription:

"To the Glory of the American Navy
In greeting to its Admiral,
To signalize their triumphs
A grateful city protected by
Their valor
Has built this arch, A. D. MDCCCXCIX."

On the east and west sides of the entablature were the single words Santiago and Manila, respectively. Double columns that formed a colonnade led up to the arch as the approach was made from the north and from the south. These consisted of sculptural decorations of a Victory by Herbert Adams, repeated on each. The first pair of columns as the approach was made from the north or the south had a third or extra column in order to provide a broader front for display of statuary in groups. These were the Army, by F. W. Ruckstuhl, and the Navy, by George E. Bissell. The arch and the colonnades were made in staff, and the work, other than the cost of the materials and the labor of the workmen, was the volunteer contribution of the American Sculpture Society in honor of Admiral Dewey. It has been decided to reproduce this arch in permanent form, and a committee of citizens has been organized, with William C. Church as chairman, who are collecting money for that purpose.

Post Office.—The Postmaster is Cornelius Van Cott. The Post Office building is at the junction of Broadway and Park Row. Besides the general post office, there are 32 branch offices, of which the one known as Branch T, at 3319 Third Avenue, was opened on Aug. 1. The revenue from the postal department in 1899 amounts to more than \$5,600,000. Within the jurisdiction of the post office are 32 railway stations and about 120 substations. The transactions of the money-order department amounted to \$135,000,000, an increase of \$10,000,000 over 1898. The increase in the number of domestic orders in December,

compared with December, 1898, was 2,000 a day, and \$16,000,000 of foreign orders were certified. The sum of \$9,200,000 was realized from the sale of stamps and stamped envelopes, an increase of \$600,000 over 1898. There was much agitation in favor of a new post-office building, and on the recommendation of Postmaster Van Cott, Postmaster-General Smith, in his annual report, recommended a new building.

Customhouse.—Active proceedings for securing the property comprising the block inclosed by Bowling Green, State, Bridge, and Whitehall Streets for the site of a new customhouse building were begun early in the year. The sum available for the purchase of the property is \$2,244,977.52. An average of the appraisal by seven real-estate experts in the spring of 1892 gave the valuation of this block as \$1,955,661, which is equivalent to \$30.45 a square foot. The old Customhouse on Wall Street was purchased by the National City Bank of New York on a bid of \$3,265,000. That corporation purposes to remodel the interior and adapt the structure to its own use. The building is regarded as one of the best specimens of classic architecture in this country, and has been occupied as a customhouse since 1862.

Hart Island.—On March 23 Hart island, in Long Island Sound, with its buildings and plants, was formally transferred back to the city by the State, for the reason that the State could not advantageously use the property. A survey of the island was made by members of the United States Engineer Corps and the United States Ordnance Board, and it is understood that it will be fortified and used for protecting the entrance to Long Island Sound. Guns mounted on the plateau of Hart island would command the sound entrance for 8 miles.

Political.—The election this year in the city was restricted to candidates for the offices of surrogate and sheriff, and for judges of the general session. For surrogate, Abner C. Thomas received 148,566 votes, against 92,585 for James M. Varnum. For sheriff, William F. Grell received 147,615 votes, against 94,732 for John J. O'Brien. Warren W. Foster received 146,999 votes, against 94,430 for James C. Blanchard for judge of the Court of General Sessions. The candidates elected were the official nominees of Tammany Hall. There were Democratic, Republican, Socialist, Prohibitionist, and Labor tickets in the field for Assemblymen, and out of 37 districts 33 Democrats were elected and 4 Republicans. The chief interest centered on the Nineteenth District, where the Republican candidate, Robert Mazet, was defeated by the Tammany candidate, Perez M. Stewart.

Events.—On Feb. 12 a severe snowstorm visited New York city, which culminated on the 14th. In comparison with the great blizzard of March 12 and 14, 1888 (see Annual Cyclopædia for 1888, page 612), the snowfall was not so heavy, although the velocity of the wind was much higher. The highest velocity of the wind was 58 miles an hour; the maximum temperature was 10 degrees, and the minimum 4 degrees. The total snowfall was 14.4 inches. The Governor ordered 7 National Guard armories to be thrown open for the sheltering of those who needed protection from the storm. It was estimated that one tenth of the city's population had no gas for fuel or lighting, because of frozen pipes. The sum of \$20,000 was collected from various sources and placed at the disposition of the Mayor, who ordered the Commissioner of Charity to purchase and dispense coal and food to the needy.

On April 15 the United States cruiser Raleigh, the vessel of Admiral Dewey's fleet to fire the first gun at Manila, arrived in New York. Two days later the Raleigh came up to the city, and was met by Mayor Van Wyck, who extended to Capt. Coghlan and his men the freedom of the city. A naval procession followed, in which the Raleigh steamed up as far as Grant's tomb, which was saluted with 21 guns, and then returned to her station off the Battery.

On Oct. 23 electric cars began running on the Third Avenue surface line between 65th Street and Harlem Bridge.

NICARAGUA, a republic of Central America. The Congress is a single Chamber composed of 48 members, half of them elected by direct popular suffrage and half by the Legislatures of the 12 provinces. The President, who is elected for four years by universal male suffrage, is Gen. José Santos Zelaya, whose term will expire in 1902. The Cabinet appointed on Dec. 3, 1898, was composed as follows: Minister of the Interior, Justice, Police, Ecclesiastical Affairs, Dr. Fernando Abaunza; Minister of War and Marine, José Dolores Estrada; Minister of Foreign Affairs and of Public Instruction, Dr. Joaquin Sanson; Minister of Finance and Public Credit, Col. Felix Pedro Zelaya; Minister of Communications and Public Works, Dr. Leopoldo Ramirez Maiarena.

Area and Population.—The republic has an area of 49,200 square miles, with a population of 420,000, including 40,000 uncivilized Indians. Leon has a population of 40,000 and Managua 20,000. The military force comprises the active army, the reserve, and the National Guard. Every Nicaraguan can be called out for service in the active army from his eighteenth to his thirty-fifth year, then for ten years in the reserve, and then in the National Guard for twenty years longer. The troops kept under arms number about 3,500.

Finances.—The revenue for 1896 was \$3,572,407, and expenditure \$4,059,674. For 1897 the revenue was \$4,688,016, and expenditure \$3,852,750. Of the receipts in 1897 the tax on commerce produced \$2,645,249; liquor tax, \$620,090; export duty on coffee, \$187,529; slaughter tax, \$132,742; direct tax, \$134,248; national railroad and steamboats, \$693,391; telegraphs and telephones, \$47,559; the post office, \$33,726. Of the expenditures, \$2,667,012 were the ordinary expenses of the administration, including \$850,013 for the interior, \$429,303 for the army, \$446,719 for financial administration, and \$132,804 for education. Supplementary credits absorbed \$899,441 more, and war expenses \$176,124. The budget of 1898 provided for an expenditure of \$5,007,588, including \$663,008 for the army, \$1,735,816 for finance, and \$1,099,888 for the interior. In 1897 the revenue was \$4,688,061, and expenditure \$3,852,750. The expenditure in 1898 was \$5,007,588.

The foreign debt outstanding on July 1, 1898, amounted to £288,923 sterling, inclusive of £10,723 of unpaid interest. By a compromise with the creditors the interest was reduced in 1895 from 5 to 4 per cent., and coupons in arrears are redeemed for half their face value. There was an internal debt of \$7,000,000 in 1894, and in 1896 treasury warrants receivable for customs dues were issued to the amount of \$500,000.

Commerce and Production.—The terrace lands in the north occupy two thirds of the country. The principal agricultural product is coffee. There are estimated to be 27,000,000 trees. Some of the large plantations are owned by American companies. The exports of coffee in 1896 were

6,501,113 kilogrammes, of which one half went to Germany, one sixth to the United States, and one eighth to Great Britain. The Government encourages planting by paying a bonus of 5 cents for each coffee tree, 21 cents for each cacao tree, and 10 cents for each rubber tree under cultivation. The cacao plantations are not half as large as they were twenty years ago, owing to neglect and frequent droughts. The cultivation of indigo has ceased to be profitable, and the crop is grown only in a few localities. In some districts tobacco is grown successfully. Beans, mandioca, sweet potatoes, bananas, pineapples, rice, sugar cane, and sorghum are raised extensively. Nearly every family of the rural population tills a small farm, often rented from a large landowner, and the crop usually includes beans, maize, bananas, and oranges and other fruits. To encourage agriculture the Government pays for a certain number of years a small premium for every hectare of wheat, sugar, tobacco, rice, beans, corn, potatoes, and pasture, and to improve the grade of farm animals a bonus is given to the importer of blooded stock. There are about 313,000 head of cattle and 32,000 horses and mules in the republic. The liquor business is a monopoly of the Government, which sells the product of the large distilleries, that make *aguardiente* out of sugar cane, and produce sugar and molasses also. The small farmers are accustomed to make their own sugar. Indigo, starch, cheese, soap, cigars, and cigarettes are manufactured, but none of the factories are large. Panama hats and palm-leaf matting are made in certain districts. Labor is difficult to obtain. The law requires, however, a laborer who owes money that he can not pay to give his labor until the debt is paid, and also any fresh debts that he contracts for wages advanced or goods furnished. The legal rate of wages is 50 cents a day. The landowners use every means to keep their laborers in constant debt, and thus maintain a system of peonage. A landlord may transfer his claim to any one else who will pay the man's debt, and every laborer must be provided with a document showing where he works.

Of the imports in 1898, the British Islands supplied 41 per cent., the United States 24 per cent., and Germany 18 per cent. Cotton muslins and prints come from England, ducks and drills from the United States, woolen dress goods from England, men's suitings from Germany and France, trimmings, hosiery, and blankets from Germany, cutlery, coffee sacks, and coal from England, beer, wire fencing, hardware, and machinery from the United States and Germany, leather from Germany. The total value of imports in 1898 was £573,236 sterling; of exports, £636,710. The export of coffee was £250,000 in value; gold, £113,726; gum, £103,605; wood, £57,178; hides, £31,238; cattle, £35,000.

There were 182 vessels, of 176,747 tons, entered at the port of Corinto in 1898, including 128 steamers, of 168,559 tons. The railroads have a length of 91 miles; telegraph, 1,250 miles of wire.

Political Affairs.—In the early part of 1899 Gen. Reyes headed a revolt against the Central Government in the Mosquito Territory. Marines from the United States gunboat Marietta and from the British cruiser Intrepid landed at Bluefields. The Government levied war contributions on the citizens and drafted the laborers everywhere into the army to the injury of the coffee crop, which was left to spoil on the trees. The export duty on coffee was raised to \$4 a quintal. The Nicaraguan army, under Gen. Estrada,

marched upon Aguas Calientes and Rama, and at its approach the rebels disbanded and fled into the forest. The captains of the American and English war vessels offered to arrange an armistice with the revolutionists, and when the Government troops captured the bluff in front of Bluefields Gen. Reyes took refuge in the British consulate and offered to surrender without further resistance. The captains of the foreign war ships delivered Bluefields to President Zelaya's troops on March 1, receiving a pledge that order would be maintained and the revolutionists spared. Gen. Torres, the new Governor appointed by President Zelaya, called upon the merchants to pay again the duties that they had already paid to Gen. Reyes. Martial law was declared, and a commission that had been appointed to frame a permanent tariff was dissolved, disappointing the merchants, who looked to it for relief from burdens on foreign capital and commerce. The American merchants who had paid duties to the insurgent government, although warned by the Nicaraguan Government not to do so, appealed to Minister William L. Merry, who arranged with the Nicaraguan Government that, pending a diplomatic settlement of the question, the merchants should pay the duties claimed into the hands of the British consul for safe-keeping. While the negotiations were proceeding Minister Merry found himself suddenly cut off from telegraphic communication with Washington, and consequently he went on a war vessel to Colon. Another British war vessel arrived at Bluefields while the British consular authorities were investigating the claims of British subjects who had been shot or flogged during the revolution.

The federation called the Greater Republic of Central America, formed in 1896 by treaty between the five Central American republics, in which a central Diet that sat at Amapala was intrusted with the partial direction of foreign affairs and the settlement of questions in dispute between the several states, came to a standstill in consequence of mistrust and discord between some of the republics. In 1899 the three adjacent middle states of Nicaragua, Salvador, and Honduras arranged to revive the scheme and to perpetuate the league for themselves under the name of the United States of Central America. It was agreed that the President of the new republic should be elected on Dec. 13, 1899, and that none of the presidents of the component states, who are reduced to the rank of governors, shall be a candidate for the post. The capital was transferred from Amapala, Honduras, to Chinandega, Nicaragua. The new Government could not be organized, in consequence of a political upheaval in Salvador. Therefore Nicaragua resumed her independent international status in 1899, and appointed a separate minister to Washington.

NORTH CAROLINA, a Southern State, one of the original thirteen, ratified the Constitution Nov. 21, 1789; area, 52,250 square miles. The population, according to each decennial census, was 393,751 in 1790; 478,103 in 1800; 555,500 in 1810; 638,829 in 1820; 737,987 in 1830; 753,419 in 1840; 869,030 in 1850; 992,622 in 1860; 1,071,361 in 1870; 1,399,750 in 1880; and 1,617,947 in 1890. Capital, Raleigh.

Government.—The following were the State officers during the year: Governor, Daniel L. Russell, Republican; Lieutenant Governor, C. A. Reynolds, Republican; Secretary of State, Cyrus Thompson, Populist; Treasurer, W. H. Worth, Populist; Auditor, H. W. Ayer, Populist; Attorney-General, Z. V. Waiser, Republican; Adjutant

General, R. B. Royster, Democrat; Superintendent of Instruction, C. H. Mebane, Populist; Commissioner of Agriculture, John R. Smith, Republican; Insurance Commissioner, James R. Young, Democrat; Labor Commissioner, J. V. Hamrick, Populist; Railroad Commissioners, R. B. Royster, L. C. Caldwell, J. H. Pearson, and D. H. Abbott; Chief Justice of the Supreme Court, William T. Faircloth, Republican; Associate Justices, R. M. Douglas, Republican; Walter Clark, Democrat; D. M. Furches, Republican; W. A. Montgomery, Democrat; Clerk, Thomas S. Kenan, Democrat.

Finances.—The receipts of the State treasury for 1899 were \$1,730,997.60, against disbursements of \$1,600,033.30. Among the receipts for 1899 were: Railroad company dividends on State's stock, \$37,998; license tax on banks, \$4,723.70; tax on bank stock, general purposes, \$10,527.50; prison debt bonds, \$120,202.50; prison farm bonds, \$65,250; insurance fees, \$6,868.50; insurance licenses, \$25,454.86; insurance companies, 2-per-cent. tax, \$54,662.59; North Carolina Railroad Company, dividends on State's stock, \$195,013; State Prison earnings, \$84,707.20; railroad property tax, general, \$72,937.21; railroad property tax, pensions, \$11,220.41; taxes from the counties, for general purposes, \$550,135; tonnage tax on fertilizers, \$59,644.76. Among the items of expenditure were: Agricultural department, \$64,985.16; interest on 4-per-cent. consolidated bonds, \$133,750; on 4-per-cent. prison debt bonds, \$2,200; on 6-per-cent. construction bonds, \$195,210; judiciary, \$63,869.15; normal schools, \$16,650; College of Agricultural and Mechanical Arts, \$33,735; Experiment Station, \$15,000; Institution for Deaf, Dumb, and Blind, \$87,500; School for the Deaf and Dumb, \$47,189.46; Oxford Orphan Asylum, white, \$10,000; Oxford Orphanage, colored, \$5,000; State Hospital, Goldsboro, \$45,000; State Hospital, Morganton, \$105,734.08; State Hospital, Raleigh, \$67,049.95; State Normal and Industrial College, \$30,000.

The bonded debt of the State at the close of the fiscal year was \$6,501,770.

The State's income from investments includes: Income from railroad shares, \$220,345, and interest on bonds \$5,470. The income to the State Board of Education from investment is \$5,850.

Banks.—There are in North Carolina 27 national banks, 44 State banks, 21 private banks, 4 savings banks, and 2 trust companies. The total resources of all State and private savings banks in 1898 were \$10,526,900. The report of the Corporation Commission shows that the total resources of the same classes of banks on Dec. 2, 1899, were \$13,222,501.12. In 1898 the deposits in these banks subject to check were \$5,208,917; in 1899 the deposits were \$8,178,782.47.

Railroads.—In the past year 108.25 miles of railroad were built in the State. In the same period the railroads increased their earnings over 1898 \$796,281.93, the total earnings for 1899 being \$13,253,627.43. The valuation of railroad property in the State increased \$10,769,099.34. The railroads of the State earned during the year a trifle over 12 per cent. on their total valuation.

Education.—The most important bill for popular education that has been enacted in a decade by a North Carolina Legislature is that appropriating \$100,000 for the public schools. It passed both houses practically without opposition, and was supported by members of all parties.

The enrollment of white male pupils increased from 133,788 in 1898 to 138,124 in 1899, and the number of white females enrolled increased from

124,463 to 125,093. The average attendance of white children fell off from 144,346 in 1898 to 140,162 in 1899. This was probably due to the severe blizzard of February, which almost stopped attendance at many country schools. The enrollment of colored males fell from 65,688 in 1898 to 60,586 in 1899, and of colored females from 67,875 in 1898 to 66,813 in 1899.

State Institutions.—The three hospitals for the insane accommodate 1,537 patients, and the whole number under treatment the past year exceeded this by several hundred.

In the Central Hospital, at Raleigh, the daily average number of patients treated last year reached 413; admissions were 190 and discharges of the cured 125; as improved, 6. The percentage of mortality on the whole number under treatment was 4.8.

In the State Hospital, at Morganton, 1,073 patients were under treatment for the biennial period of 1897-'98. The report notes 120 discharged during the year, and 251 for the biennial term. The percentage of mortality was 3.53.

The Eastern Hospital, at Goldsboro, exhibits a needed improvement in the new building and machinery for electric lighting. The percentage of mortality upon the whole number of patients was 5.6, and that of cures upon admission 35.77. For two thirds of the year its capacity was entirely filled by 430 patients, and acute cases are largely shut out.

At the Institution for the Blind, the Deaf, and the Dumb, two new buildings have been erected, giving accommodations to 400 pupils. Another story is being added to the old building. This will bring up the capacity to 500.

The School for the Deaf, at Morganton, by the erection of a new \$20,000 building has increased its capacity to 300.

Many improvements have been made at the Oxford Orphan Asylum. The amount expended this year was \$22,667, of which the State contributed \$10,000.

At the colored orphan asylum, a superintendent's house has been built and the schoolrooms enlarged to accommodate 200 children. The enrollment Dec. 1, 1898, was 134; at the corresponding date of 1897 it was 108. The debt on the farm of 168 acres in cultivation has been reduced to \$469.20. The general expenses and improvements amounted to \$6,029 for the year.

During the year there were 94 veterans on the rolls of the Soldiers' Home, with an average attendance of 70. An appropriation of \$5,000 has been made for new buildings and for repairs.

Industries.—By far the most striking feature of the year's industrial progress in the State was the projection and building of new cotton mills and the enlargement and better equipment of old mills. In 1870 there were 33 mills with 39,897 spindles; in 1886, 80 mills with 199,433 spindles; in 1898, 186 mills with 1,018,000 spindles. Today the enlargement of the old mills and new ones just beginning operation increase the number of spindles to 1,200,000. In 1896 the cotton crop of the State was about 500,000 bales, and the mills consumed 300,000 bales; for 1899 the crop estimate was 480,000 bales, and the mills would need more than 400,000 bales.

The capitalization of the mills in the State reaches \$20,702,400. There are 11 woolen, 28 knitting, 1 silk, and 1 jute bagging mill.

Nearly all the mills projected are being built, and almost entirely by local capital.

The increase of the lumber product of 1899 over that of 1898 is estimated at 30 per cent. Eighteen new lumber companies were organized

in 1899, with a total capital of \$562,000. Nine furniture factories, with estimated total capital of \$100,000, have been added. Twenty-nine other establishments, with aggregated capital of \$342,000, also began work in 1899.

Mining.—In the gold mines work is being pushed in Greer, Capp's Hill, Summerville, and perhaps other mines in Mecklenburg County; at several mines in Cabarrus County; at the Gold Hill, Dutch Creek, and one or two other points in Rowan County; at a new discovery in Caldwell County from which encouraging reports come; at the Belle mine, in Moore County; at the Portis mine, in Franklin County; at the Mann-Arrington mine, in Nash County; and perhaps at two other points in the Eastern belt; Stanly and Montgomery Counties have small operations going on most of the year.

In silver, the most notable activity is at the old Silver Hill mines, in Davidson County. The operations are perhaps the deepest in the State, reaching a depth of 800 feet below the surface. Other silver mines are the Siler Valley, also in Davidson County, and the Troutman, near the dividing line between Rowan and Cabarrus Counties.

In copper mining, the most noted recent discovery is at what was formerly known as the Union Gold and Copper Mine, between Gold Hill in Rowan County, and the Cabarrus County line. The ore includes native free copper, cuprite, azurite, malachite, red oxide, copper glaze, and the green and blue carbonates of copper.

The iron mines are active—notably the famous Cranberry mines, in Mitchell County. The Ormond Ore Banks are also active. Ore Hill, in Chatham County, is being operated, and recently some very fine ores have been uncovered. At Wilson's Mills a new iron property has been opened.

A company has purchased 5,000 acres in Macon County for the purpose of mining systematically for the gem rhodolite, also ruby, sapphire, and other corundum gems.

Legislative Session.—The Railroad Commission was abolished and the act repealed. In lieu thereof a corporation commission was established, composed of three members elected by the General Assembly, to hold their places until the next general election, when their successors will be elected by the people for a term of six years.

The insurance laws were consolidated and the insurance department was established.

The agricultural department was reorganized, and provision was made for the election of the commissioner by the people.

An antitrust law was enacted. Many perplexing and serious difficulties presented themselves when the attempt was made to frame a statute. It was found that a number of local industries important in their nature would be seriously affected by any drastic legislation.

A separate car law was passed.

The subject of municipal government received consideration, and a large number of charters were revised. Many towns and cities secured new charters.

Labor Day was made a legal holiday.

The criminal courts of the State were reorganized.

Provision was made for reorganization of the State Guard.

A constitutional amendment on the subject of suffrage and office holding is to be voted on by the people in August, 1900.

Political.—The 1899 Legislature consists of 40 Democrats in the Senate and 94 in the House; 10 fusionists in the Senate and 26 in the House.

NORTH DAKOTA, a Northwestern State, admitted to the Union Nov. 3, 1889; area, 70,795 square miles. The population in 1890 was 182,719. Capital, Bismarck.

Government.—The State officers during the year were as follow: Governor, Frederick B. Fancher; Lieutenant Governor, J. M. Devine; Secretary of State, Fred Falley; Treasurer, D. W. Driscoll; Auditor, A. N. Carlbom; Attorney-General, J. F. Cowan; Adjutant General, Elliott S. Miller; Superintendent of Public Instruction, J. G. Halland; Commissioner of Insurance, George W. Harrison; Commissioner of Agriculture, H. U. Thomas; Bank Examiner, H. A. Langlie; Railroad Commissioners, Luke L. Walton, John Simons, Henry Erickson; Chief Justice, J. M. Bartholomew; Board of Dental Examiners, R. B. Foster, H. L. Starling, H. S. Sowles, D. B. McLean; Land Commissioner, Hugh J. Watt, resigned Aug. 5, 1899, followed by D. J. Laxdal; Superintendent of Irrigation and Forestry, W. W. Barrett; Oil Inspector, P. B. Wickham—all Republicans.

Finances.—The condition of State funds, Jan. 1, was (total, \$169,890.80) as follows: Overdraft on general fund, \$11,923.16; bond interest fund, \$10,994.16; permanent school fund, \$69,939.57; endowment for agricultural college, \$60; State tuition funds (fines and taxes), \$42,040.95; wolf bounty fund, \$1,374.87; Grafton School for Feeble-Minded, \$27,894.56; Capitol building fund, \$487.27; trust fund, \$1,100.25; school-district bonds, permanent school fund, \$601,700; State bonds, \$10,000; securities for State land loans, \$113,705; State funds in suspended banks, \$55,000; total indebtedness of the State, \$800,000, of which \$600,000 is upon State institutions and real estate and \$200,000 represents the bonded indebtedness of the State. The State Treasurer took up \$22,000 of 4-per-cent. bonds, maturing ten years hence, because the money lay idle in the treasury. The total valuation of property in the State, as equalized by the State Board, was: Real property, \$72,010,059; personal property, \$24,641,156; railroads, \$16,985,084. The tax levy was fixed at 3.8 mills, and for bond interest 0.5 of a mill. The wolf bounty tax was 0.2 mill.

Banks.—The report of the 23 national banks on Feb. 4, 1899, showed a decrease in total resources since Dec. 1, 1898, of \$581,794; in loans and discounts of \$7,240; in cash reserve, \$321,090, of which gold holdings increased \$19,020; deposits decreased \$394,235; average reserve held decreased from 35.40 to 31.71. The State Examiner reported the July loans and discounts as \$4,529,548.07; total resources of the 106 State banks, \$6,991,379.49; capital stock paid in, \$1,258,250; surplus fund, \$164,022.25; certificates of deposit, \$2,138,955.43; bills payable, \$151,112.30. The amount on hand, as reported Dec. 2, was \$6,225,491; loans and discounts, \$5,467,909; average reserve held, 23.28.

Insurance.—The total of fire risks written in the State in 1899 was \$26,500,000; the total premiums received, \$543,000; and the total losses incurred, \$382,000.

The total life insurance written was \$2,500,000 by the fixed premium life companies and \$625,000 by the assessment companies; the total premiums received, \$366,000 by the fixed premium companies and \$44,000 by the assessment companies. The total life insurance in force at the close of the year in the State was \$13,800,000 by the fixed life companies and \$3,600,000 by the assessment companies. The total of losses incurred was \$105,700 in the fixed premium companies and \$33,000 in the assessment companies.

Forestry.—The North Dakota State Sylvaton Society has for its prime object the enlistment of school children in the subject of forestry. It has furnished millions of forest seed and some seedlings to the schools for the pupils to plant on or near Arbor Day in the school grounds, and also at the home places in the village and city lots and on the farms in the country districts. North Dakota has 460,000 acres of native woods, and about 40,000 acres of domestic trees, with 50 varieties of trees and 20 kinds of wild fruit, all natives of its own woods.

Land Sales.—The Land Commissioner reported an area of 19,928,030 acres, of which 12,091,904 had been surveyed. The survey for the present covered 2,260,000 acres. During the past two years 29,247 acres of land have been selected for State institutions. The business transacted at the Bismarck land office between July 1, 1898, and June 30, 1899, was as follows: Cash entries, 87, comprising 2,981.85 acres; homestead entries, 1,099, of 189,785.91 acres; final entries, 246, of 38,430.27 acres; final tree-claim entries, 23,216.16 acres; total fees and commissions, \$27,501.68, on a total of 234,414.19 acres.

Decisions.—The Supreme Court holds that the cashier, without authority from the directors specifically, could not bind a bank.

A person was convicted of having stolen wheat from a granary, his method of abstracting it being by boring an auger hole in the floor and securing the grain that ran through. The judge held that this did not constitute a burglarious entrance into the building, but the Supreme Court held that the crime as committed was burglary.

Curfew Law.—The city of Bismarck passed the following ordinance on April 13: It shall be unlawful for any person under sixteen years of age to be or loiter upon the public streets between the hours of 9 o'clock P. M. and 5 o'clock A. M. from the 1st day of March to the 30th day of April; between the hours of 10 o'clock P. M. and 5 o'clock A. M. from the 1st day of May to the 31st day of August; between the hours of 9 o'clock P. M. and 5 o'clock A. M. from the 1st day of September to the 30th day of November; between the hours of 8 o'clock P. M. and 5 o'clock A. M. from the first day of December to the last day of February. The ordinance makes certain proper exceptions.

Live Stock.—For 1899 the number of horses reported was 175,131, value about \$6,000,000; milch cows, 171,073, value \$4,892,000; other cattle, 252,640, value \$6,528,000; sheep, 359,721, value \$1,014,000; swine, 111,959, value \$250,000.

Charity and Correction.—The number of patients admitted to the insane asylum in the past two years was 225; died, 68; discharged, 140.

The convicts at the Penitentiary farmed more than 1,100 acres; built a new barn, also a factory and power house for the twine plant; made 1,750,000 of brick, and hauled them from the yards to the Penitentiary grounds. There were 34 of the convicts engaged in brickmaking. The last Legislature appropriated \$150,000 to be used in building the twine plant on the Penitentiary grounds; the work is to be done by convict labor.

Military.—At the end of a year's service in the Philippines the North Dakota regiment showed 623 men out of 660 sent into service. The soldiers were mustered out Sept. 25, and each man was paid \$200, the amount due for his services to Sept. 25, two months' extra pay, clothing allowance, and travel fees. The last Legislature appropriated \$2,500 for the regiment in the Philippines, but the fund was brought back to this country intact, and \$1,784 was paid for tourist

sleepers for the enlisted men on the return trip from San Francisco.

The new military buildings at Bismarck, to take the place of the post at Fort Yates, are modern in every respect. The barracks are of brick, 2 stories high, with attic and basement.

The battle flag of the First North Dakota Regiment has 36 silver rings on the staff, indicating the engagements in which the regiment fought. This flag and the State flag were transferred to the Adjutant General, Oct. 24.

Products.—The number of artesian wells in the State is 678, giving, with the springs, a flowage of 6,096,960,000 gallons of water per annum.

The flax acreage in the State was reported as 600,000, with an average of 12 bushels to the acre, at a value of \$8,000,000, against 416,230 acres last year, with a yield of 4,134,166 bushels.

Education.—The total number of school districts organized in 1899 was 36; number discontinued, 8; total number of districts, 1,177; number of schoolhouses built during the year, 117; total seating capacity of all schoolhouses, 80,982; number of children enumerated, 76,651; number of days school was taught, 313,459; average daily attendance, 41,155; number of teachers employed, male 1,115, female 2,522; average monthly salary, male \$39.92, female \$35.51; amount paid teachers during the year, \$682,175.36; receipts for school purposes, \$2,089,617.63; number of school libraries, 425; volumes, 32,902; volumes added during the year, 7,244.

Physical culture will hereafter be taught in all schools of the State receiving State aid.

The Agricultural College, at Fargo, received from the State 130,000 acres of land; the normal schools, 80,000 acres; the university, 86,080; in all, for school purposes, 586,080. The college at Fargo reported its total enrollment as 166; average attendance, 150; annual expenses, \$11,000; value of property, \$60,000; endowment, \$30,000; volumes in library, 2,556.

The Northwestern Normal School gave the number of teachers as 6; total pupils, 200; value of property, \$40,000.

The industrial boarding school at Standing Rock agency reported 17 teachers, 169 pupils, 122 average attendance, and 125 volumes in the library.

The School for the Deaf, at Devil's Lake, had 50 pupils, with 16 applications on file at last report; about \$20,000 of the last appropriation of \$47,000 for additional room has been spent.

The last report of the State University, covering the biennial years of 1897 and 1898, shows that 326 students attended the university in 1898, exclusive of 150 that were in the summer school. The placing of the high-school law on the statute books has been of great benefit to the university, as 21 schools in the State are now doing two years of high-school work, 14 of them three years, and 7 of them four years of such work, thus freeing the university from the preparatory work almost entirely. The Sylvaton museum contains collections of the grains of the State, seeds from the field and garden and woods, sections of trees, birds, birds' eggs, animals' heads, minerals, coals, soils, etc. The walls are covered with historical pictures, and the resources and history of Dakota is attractively displayed.

The State traveling libraries are doing good work, and have received the support of educational bodies throughout the State.

Legislative Session.—The Legislature assembled Jan. 5, and closed its session March 10. The following were among the bills passed and approved by the Governor:

Extending the term of residence in divorce cases to twelve months, and requiring that plaintiff must be a resident of the United States, or must have declared his intention to become such.

Providing that the innocent purchaser of incumbered realty shall have recourse against the grantor.

Providing that the court may direct the payment of alimony in divorce cases, where the decree is granted for the offense of either the husband or the wife.

The appropriations for the State institutions were: For the Agricultural College, \$27,700; the Penitentiary, \$64,000; the university deficiency, \$7,000; the Mayville Normal School, \$22,300; the Valley City Normal School, \$25,500; the State deaf school, \$47,000; the Soldiers' Home, \$14,000; the insane asylum, \$105,500.

On Jan. 26 Porter J. McCumber (Republican) was elected United States Senator, receiving 32 votes out of a total of 46.

NORTHWEST TERRITORIES OF CANADA. In 1898 the Legislature of these territories was dissolved and Mr. F. W. G. Haultain, who since 1888 had been at the head of its changing constitutional system—under the Lieutenant Governor—was sustained as Premier by a large majority. The Legislature met on April 4, 1899, and was opened by the recently appointed Lieutenant Governor, A. E. Forget, with a speech from the throne, of which the following are extracts:

"After a residence of nearly a quarter of a century in the territories, I am not unacquainted with earlier conditions of life in this country, and am well pleased to note that even at this comparatively early period in their political history the people of the Territories are assured of their future welfare, of which fact there are many evidences.

"On the twenty-sixth day of September last, within three months of his arrival in the territories, Lieut.-Gov. Cameron died at London, in the province of Ontario. My lamented predecessor fittingly closed a long life, of which a considerable part was actively spent in the service of Canada, in the administration of these territories, and his unique personality will long remain a warm memory among those who knew him. Though the period of his actual residence in the territories was but brief, he had abundantly shown that his heart and sympathies were with our country and our people.

"Owing to the unprecedented increase in the work of departmental administration, I found it necessary at the beginning of the year to call to my aid the continuous services of the third member of the Executive Council, and to make such a distribution of the various offices provided for by law as permitted the duties devolving upon the members of my Government to receive closer and more detailed attention than was previously found to be possible. Much benefit to the public services has resulted from this change. The consolidation of the ordinances of the territories has been completed since the close of the last session of the Legislative Assembly, and the printed volumes will shortly be available.

"The work of organizing the country under the local improvement ordinance has been nearly completed. There are now 450 districts ready to commence their work with the opening of spring. The operation of the ordinance has shown that its provisions can not be made to apply in certain portions of the country where the settlement is not close or continuous, and a measure will be submitted to you dealing with this

phase of the question without violating the principle underlying the ordinance.

"The question of the supply of water for general purposes in certain parts of the territories is one to which considerable attention has been given by my Government. The work carried on by the Public Works Department during the past season in seeking to establish the extent of the disabilities in this respect under which those parts of the country labor has met with gratifying results, and has shown that the difficulty—hitherto deemed almost insurmountable—is one that in nearly every instance can be removed. You will be asked to provide the necessary means for extending this work and prosecuting it with vigor.

"The initiatory work of the Department of Agriculture has already been attended with a considerable amount of success. A number of stock owners in various parts of the territories are availing themselves of the opportunity to improve their herds by the introduction of thoroughbred animals under the supervision of the department, and arrangements have been completed, under the authority given at the last session of the Legislative Assembly, for the operation this year of an experimental station near Calgary, at which demonstrations of the agricultural possibilities under local conditions will be afforded. Arrangements for the establishment of similar stations in other parts of the territories are receiving attention."

William Eakin was elected Speaker, and the Executive Council or Ministry as now constituted consisted of F. W. G. Haultain, Attorney-General; J. H. Ross, Treasurer and Commissioner of Public Works; and G. H. V. Bulyea, Commissioner of Agriculture and Provincial Secretary. At the close of the session, after sundry lively debates, the following measures, among others, were assented to by the Lieutenant Governor in the Queen's name:

To amend an ordinance respecting the Legislative Assembly.

To amend an ordinance respecting elections.

To amend an ordinance making regulations with respect to coal mines.

To declare and amend the law of partnership.

To amend an ordinance respecting agricultural societies.

An ordinance respecting the winding up of joint-stock companies.

An ordinance respecting agricultural societies.

To amend an ordinance respecting municipalities.

To amend an ordinance respecting villages.

To amend an ordinance respecting local improvement.

To amend an ordinance respecting irrigation districts.

An ordinance respecting the inspection of stock.

An ordinance to protect horse breeders.

To amend an ordinance for the protection of game.

To amend an ordinance respecting insane persons.

Finances.—The sums granted to the Lieutenant Governor for the financial year ending Dec. 31, 1899, and the purposes for which they were granted, were as follow: Civil government, \$43,826.77; legislation, \$30,125; administration of justice, \$9,950; public works, \$136,000; education, \$158,000; agriculture and statistics, \$16,650; hospitals, charities, and public health, \$8,750; miscellaneous services, \$10,323.96. The total amount was \$413,625.73. To defray the expenses of legislation, maintenance of public institutions, salaries

of the officers of the Government and public service, and for all other expenditures of the Government from Jan. 1, 1900, until the final passage of the estimates of expenditure for the financial year 1900, the sum of \$60,000 was also voted.

Education.—According to the annual report of the Council of Public Instruction, 426 organized school districts were in operation in 1898. The registered number of children of all ages was 16,754, with a daily attendance of 8,826. The average period all schools were open during the year was one hundred and fifty-nine days. The teachers numbered 483. The average cost of educating each child was \$18.45 per annum. Twenty-eight new school buildings were erected, at a total cost of \$19,964.60, which in most instances was raised by debentures, although a few buildings were erected by voluntary contributions of money and labor. The grounds around several buildings were inclosed, wells were dug, stables and sheds added, and extensive alterations and improvements made. The aggregate cost of buildings and improvements was \$29,740. New furniture was added at a cost of \$5,933.32. The sum of \$3,522.60 was spent on school apparatus, including libraries.

Agriculture.—In the year 2,942 homestead entries were made in the Northwest Territories. The Canadian Pacific Company land sales showed an enormous increase over previous years. In 1897 199,481 acres were disposed of in the West, 67,000 of which were in Assiniboia and Alberta, while in 1898 the sales reached the area of 348,627, of which about 160,000 were in Assiniboia and Alberta. It is estimated that about one sixth of the purchasers settled in the country within the year. The arrivals at Winnipeg showed an increase of about 175 per cent. over the previous year's figures. According to the report of the Department of Agriculture for the year, the production of wheat was 5,542,478 bushels and the acreage 307,580; oats, 3,040,307 bushels, acreage 105,077; and barley, 449,512 bushels, 17,092 acres. The total acreage was 429,749.

NOVA SCOTIA, an eastern province of the Dominion of Canada; area, 20,907 square miles; population in 1891, 450,396. Capital, Halifax.

Government and Politics.—The second session of the thirty-second Legislature of the province met on Feb. 2, 1899, and was opened by Lieut.-Gov. M. B. Daly with the usual ceremony and a speech from the throne, of which the following are extracts:

"The past year may be fairly spoken of as one of general prosperity throughout the Dominion, and it must be a gratification to us to know that in our own province a fair degree of success rewarded the industry of our people in their various fields of labor. During the past year the sales of coal from the mines of the province show an increase, and are the largest on record. This increase has continued since the close of the fiscal year, necessitating the working of our collieries during the winter months, which is a matter of the greatest importance to our coal-mining population. This satisfactory condition of affairs is owing to an increased demand and to the fact that a large quantity of our coal is being mined to make coke and gas.

"The operations of our gold mines also shows an increase, the productions of gold last year being the largest yet recorded. Gold mining in Nova Scotia is now for the most part conducted by companies, which, working with modern appliances, have as a rule made profitable returns. The preparations for opening new mines promise still larger productions in the present year. You

will be pleased to learn, from a report to be submitted, that large areas in the island of Cape Breton, hitherto considered of doubtful mineral value, offer good fields for mining enterprise and investment, and that explorations during the past season have shown that the area of the Cumberland coal field is much more extensive than it was previously believed to be.

"Very satisfactory progress has been made in the construction of the Midland Railway between the towns of Windsor and Truro. We have every reason to look forward to the completion of this road during the coming summer. I regret the progress made with the projected railroads between Halifax and Yarmouth during the past year has not been as satisfactory as we could have desired. The subject of certain railway claims of this province against the Federal Government has engaged the attention of my ministers during the recess, and renewed efforts have been made to have these claims effectively placed before the federal authorities. A delegation visited Ottawa recently for that purpose.

"Since the last meeting of the Legislature, by a decision of the Judicial Committee of the imperial Privy Council, it has been determined that the ownership of the beds of lakes and rivers, and inferentially of the foreshores in bays and along the coast, is vested in the provincial Government. While this decision in no way affects the responsibility of the Federal Government in respect to the regulation and protection of the fishing industry of the country, it has made it clear that the right to issue leases of fishing privileges over a defined area is vested in the provincial Government. A measure dealing with this subject will be submitted for your consideration.

"A great deal of importance is properly attached to the question of the maintenance of our common roads. A large amount of intelligent discussion and the introduction of modern road machinery in many parts of the province have done much to assist in bringing about a more desirable condition of affairs. It has been felt that our present road law does not meet present requirements.

"The act of the last session providing for a revision of the statutes required that the work should be completed on or before the 31st of December, 1898. The commissioners appointed for this purpose, while proceeding with the work with the utmost vigor, have officially reported to my Government that it was absolutely impossible to complete the work in a thorough and satisfactory manner within the time specified, and for this reason the complete work can not be submitted to the Legislature this session."

On March 10, in pursuance of a policy that the Liberal provincial governments were putting in practice of supporting proposals made by the Dominion Liberal Government, Attorney-General Longley moved the following resolution regarding the constitution of the Senate of Canada, and it was carried by a vote of 30 to 2:

"That an humble address be presented to her Majesty the Queen setting forth that the provisions of the British North America act, 1867, respecting the legislative functions of the Senate of Canada, are unsatisfactory, and should be so amended as to bring that body more into harmony with the principles of representative government, and praying that her Majesty may be pleased to recommend to the imperial Parliament such an amendment of the said act as will provide that if the House of Commons passes any bill and the Senate rejects such bill or fails to pass it, or passes it with any amendments to

which the House of Commons will not agree, and to which amendments the Senate adheres, the Governor General may by message, upon the advice of his Council, convene a joint sitting of the two houses, which sitting shall decide by a joint vote, without debate, the question in controversy between the two houses."

The session of the Assembly closed on March 30 with the following review of its work by the Lieutenant Governor:

"The special act respecting roads will, I feel assured, meet with public approval. It is a measure of reform which should bring about a more efficient supervision of this important branch of the public service. I notice with satisfaction the passing of an important measure in relation to agriculture, including provisions for the assistance of creameries, which should have the effect of giving to all the counties of the province the advantages of improved dairying. It is gratifying to observe the passing of an act for the encouragement of the production of iron and steel in this province, which, I trust, will have the effect of leading to a larger development of this most important industrial enterprise. The legislation of the session with respect to the fisheries will, it is hoped, enable this province to efficiently carry out provincial interests in this leading industry. Prominent among the measures which you have passed is an act to consolidate our marriage laws; also acts relating to juries, mechanics' lien, secret bills of sale, and an act effecting a change in the granting of Crown lands. I congratulate you upon the passing of these important measures."

Iron and Steel Industries.—The legislation and discussion connected with this important branch of provincial development attracted much attention during the year, and the work already accomplished was well reviewed by Mr. Whitney, the American-Canadian capitalist, in a letter to the Premier, from which the following extracts are taken:

"Through your position with the Government of Nova Scotia you are, of course, cognizant of the history of the coal trade in your province and of my connection therewith since the year 1893. Although you are aware of the facts, you will, perhaps, pardon me if I pass in review the history of the coal business in Cape Breton County since I became connected therewith. I wish to do this as I am about to make later in this letter a proposal to you leading to a further and larger development of this trade. You will remember that I procured the organization of the Dominion Coal Company, which has already spent in the purchase of mines and in equipping them with modern plant and machinery between \$6,000,000 and \$7,000,000. The greater part of this money was fresh capital, and came from outside of the province. That the company has been successful appears from the fact that the output of coal from the mines which were purchased by the Dominion Coal Company has been increased from 700,000 tons a year to 1,200,000 tons. The wages have increased from \$700,000 (the highest ever paid by the old companies) to \$1,100,000 a year. The royalty paid by the Dominion Coal Company is substantially greater than that paid by any other coal company, and the increase in the provincial revenue has been very considerable. I found early in the history of the Dominion Coal Company that it was cramped for markets, and with a view to the further development of the mining industry in Cape Breton I promoted in the city of Boston the formation of a coke and gas company, involving an expenditure of about

\$5,000,000. This company was formed for the purpose of manufacturing coke and gas from Nova Scotia slack coal. The works are nearing completion, and are taking a moderate quantity of coal from our mines at the present time. About the 1st of April the company will begin the consumption of Nova Scotia coal at the rate of about 750,000 tons a year. To meet this increased output, the Dominion Coal Company is continuing its work in Cape Breton through the present winter season with practically the same vigor with which it prosecuted the work during the summer season. This, you will admit, is an entirely new phase of coal mining in the country of Cape Breton. The great difficulty in the past with these mines was the short period during which mining was carried on, leaving so many men idle through the long and hard winter. It could not be expected that matters would be on an entirely satisfactory basis until this great difficulty was overcome. You will probably, therefore, be glad to know that this difficulty has been overcome, and that the miners of Cape Breton have a much better future than they could possibly have had under anything less than the development brought about by the Dominion Coal Company or an institution of similar character, prosecuted with the same energy.

"Since the formation of the Dominion Coal Company I have given my entire time and energy to further its best interests, and am desirous of further developing its business and putting it on such a basis that the company and the mining interests shall be independent of all governments and tariffs, excepting the Government of Nova Scotia and the Parliament of Canada, under whose jurisdiction it is, and who must always be interested in the success and advancement of the company. Within the last year experiments on a working scale have proved what hitherto was unknown and even denied—namely, that the coal of our mines was suitable for the manufacture of metallurgical coke. Coincident with this has been the discovery of the existence of a cheaply mined ore, easily brought to Cape Breton, where limestone abounds, making the conditions for the manufacture of pig iron and steel most favorable. Access by sea facilitates the importation of foreign ore, and there is therefore found in connection with our mines all the conditions for a successful iron-making industry—namely, raw materials close at hand and water transportation to the markets of the world."

Mr. Whitney submitted a proposal that the Legislature of Nova Scotia should take power to itself, by order in Council or by an act of Parliament, to remit the whole royalty on all coal used in the manufacture (or in connection therewith) of iron and steel in the county of Cape Breton to any company that would begin active operations on or about the 1st of August next, and continuously and actively prosecute its work, making an expenditure on the whole enterprise which shall be not less than \$3,000,000. In great measure the proposals were accepted, and on March 15 Mr. G. H. Murray, the Premier, introduced legislation in a speech explaining that the bill authorized the Governor in Council to refund half of the royalty paid on coal used within the province of Nova Scotia in the making of iron and steel to any company that might be organized and begin operations within twelve months from the 1st of August next, and also should within two years of said date have erected within the province of Nova Scotia a plant at a cost of not less than \$3,000,000 for the manufacture of iron and steel. The second clause of the bill stated

that this refund of royalty should not be for a longer period than eight years. The third clause enabled the Governor in Council to make regulations for ascertaining the amount of coal consumed by any company. The fourth clause of the bill provided against a possible criticism or objection which might be raised in respect to the lessening of the revenue which the province now enjoyed. Members of the house would recollect, explained Mr. Murray, that in the contract with the Dominion Coal Company it was provided that the minimum amount of royalty to be paid by this company in any one year was fixed, and it was felt advisable to have it clearly understood that this contract should not be weakened in any sense by a rebate. It was consequently provided that any coal on which a royalty had been refunded under this act should not be counted as part of the minimum output of coal required by the Dominion Coal Company.

Finances.—On Feb. 20 Mr. Murray, Premier and provincial Treasurer, presented his annual report to the house. He began by stating that he had estimated a small surplus of \$3,000, which had actually amounted to \$6,630.25. The expenditure was \$849,330.45, and the receipts \$855,960.70. The money to the credit of the province at Ottawa was \$1,056,133.49, which bore interest at 5 per cent. The interest on this and the allowance under the British North America act in 1898 amounted to \$432,807.10. The Mines Department had yielded \$277,870.74, against \$270,387 the year before, or an increase of about \$7,000. The figures of revenue derived from coal since 1870 showed the following increases: 1870, \$71,575.28; 1880, \$70,548.51; 1885, \$119,294.77; 1890, \$168,644.62; 1898, \$277,870.74. This showed an increase of more than \$200,000 in less than thirty years, and in less than ten years the increase had been considerably more than \$100,000. The Premier spent some time in combating the view that it was the protective clause of the (Conservative) Dominion policy that had brought pronounced growth to the provincial coal industry. He was not prepared, however, to say that protection had not accomplished some good for Nova Scotia coal, but he held that it was the legislation of Nova Scotia itself that had been the great stimulant to the revenues from coal. Up to 1885, he said, the royalty had been 9.7 cents a ton on round coal, slack being free, but in that year the royalty was fixed at 7½ cents on all coal. In 1892 the royalty was raised to 10 cents, and in 1893 the royalty on all coal raised by the Dominion Coal Company had been fixed at 12½ cents, while that paid by other companies was left at 10 cents. Since 1893 there had been mined 11,533,777 tons, which at the present rate of royalty gave \$1,291,810.66. If this quantity had paid merely the old rate of 7½ cents, all that would have been received was \$864,333.25. Thus provincial legislation in five years had added \$427,477.41.

In speaking of the succession duties, the Premier admitted that legacies for religious and charitable purposes should be exempt from the tax. The estimated revenue from this source for 1898 had been \$45,000. The amount received was \$13,161.87 more than the estimate. The chief sources of revenue during the year were the interest and allowance from Ottawa, \$432,807; marriage license fees, \$6,783; succession duties, \$58,161; Crown lands, \$20,386; Hospital for Insane, \$41,539; and the Victoria General Hospital, \$7,348. With some small miscellaneous items these make a total revenue of \$855,960.70.

The expenditure on current account in 1898 was \$4,368 less than the year before. The figures

were \$853,698.87 in 1897, and \$849,330.45 in 1898. The items of expenditure were as follow: Education, \$247,998; public charities, \$124,266; interest, \$122,292; road grant, \$84,912; legislative expenses, \$47,173; steamboat subsidies, \$38,219; provincial engineer's office, \$10,280; mines office, \$20,968; Public Works Department, \$11,802; salaries, \$22,450. On capital account the expenditure for the year had been \$119,206.56, of which the construction of iron bridges had received \$72,312, the coast railway \$36,000, and the Exhibition Committee \$10,000. The total expenditure on capital account up to September, 1898, on bridges, railways, and other public works had been \$3,742,156.23. The Premier deducted from this the amount of \$1,056,133.49 to the credit of the province at Ottawa, and placed the net provincial debt at \$2,387,314.18.

Lumber.—The lumber output from Nova Scotia averaged only about one third of that from New Brunswick. The combined shipments from Nova Scotia in 1898 amounted to about 561,000,000 superficial feet, or 119,000,000 less than in 1897. The feature of this year's business was the large decrease in the exports from almost every New Brunswick and Nova Scotia port, showing a reduced shipment from the former province of 82,000,000 superficial feet, and from the latter of 37,000,000 superficial feet. The shipment of lower port woods is still too large for present market requirements, and a further curtailment of 10 to 20 per cent. would, it is said, give much better results for both shippers and producers. The stock of merchantable spruce deals and logs wintering at Chatham, Nova Scotia, was above the average, although 23,000,000 superficial feet less than last year. Following is a comparison in the transatlantic shipments of deals from New Brunswick and Nova Scotia, the figures being given in round millions of superficial feet: 1894, New Brunswick 326,000,000 feet and Nova Scotia 106,000,000 feet; 1898, New Brunswick 412,000,000 feet and Nova Scotia 148,000,000 feet.

Education.—The report of the Superintendent of Education for the year ended July 31, 1898, showed that the educational affairs of the province during the year were satisfactory. The number of sections that were without schools had been reduced from 153 to 124, which was a continuation of the improvement of the previous year, when they were reduced from 171 to 153. The number of schools increased from 2,346 to 2,385. The annual enrollment of pupils increased from 100,847 to 101,203. What was of greater importance, the daily average attendance increased from 54,922 to 57,771. The superintendent reported that this was the best attendance in the history of the province. The number of teachers rose from 2,485 to 2,510, and it was regarded as even more important that the number of normal-school trained teachers rose from 752 to 798. The report showed a steady gain in the number of trained teachers remaining in the profession since 1893. The numbers employed each year since 1893 were as follow: 403, 499, 616, 690, 752, 798. The number of male teachers increased from 576 to 614, while the female teachers diminished from 1,909 to 1,896. This change was in keeping with the general trend since 1893. The school sections increased their vote for buildings and repairs by \$22,481 over the previous year, and for teachers' salaries by \$11,139. The former indicated a growing appreciation of improved accommodation for the children, and the latter of the value of skilled teachers. The average of salaries had not increased, however, as the small

increase in some classes was offset by a small decrease in others. The teachers' licenses granted each year from 1893 to 1898 were as follow: 218, 250, 365, 513, 571, 573.

Agriculture.—The annual report on agriculture showed that in 1878 there were 77 agricultural societies in the province, having a membership of 4,138 persons, who subscribed \$4,860.82, and in 1895 the number had only increased to 83, with a membership of 4,597, subscribing \$5,356. In 1898, three years later, there were 103 societies, containing 6,155 members, subscribing \$7,092.90. In the current year (1899) 15 of these societies were formed. The subscription of these societies in 1898 (\$7,092.90) was supplemented by the Government grant of \$8,000, and this made a total sum of over \$15,000 spent for improving the live stock in the province. The report on the subject of creameries, with a detailed table, showed at least an encouraging intimation of progress. The total product of the creameries and butter and cheese factories subsidized for the Government for 1897 was \$73,000, while in 1898 it was \$104,500.

On March 14 the subject was discussed in the Legislature, and a special report of a committee was presented by the Hon. J. W. Longley, which, said, among other things:

"We note with pleasure a firm belief in the practicability of cultivating fruit on a more extended scale in many sections of the eastern counties. Your committee has been waited upon by a joint committee of the Nova Scotia Farmers' Association and Nova Scotia Fruit-growers' Association regarding the School of Agriculture and model farm. While admitting the beneficial results to our young men from instruction received at the college and farm at Truro in the past, and also the good work at the Horticultural School at Wolfville, we are of opinion that, in order to keep up with the march of improvement and development, and also taking into consideration the awakened interest in agriculture and horticultural matters throughout the province, we were justified in advocating better facilities for scientific agricultural training. Your committee would respectfully recommend that the Schools of Agriculture and Horticulture be united and established on a model farm, in a part of the province best adapted, naturally and by environment, for the successful operation of such a school and farm, where, with sufficient equipment, our farmers' sons and others may receive a scientific, technical, and practical agricultural education. Your committee is of opinion that if an abattoir company were to establish a business in Halifax on an extensive scale the result would be the encouragement of our farmers to produce much more stock for slaughter. Should a *bona fide* company, with sufficient capital to guarantee successful prosecution of the work, be established in Halifax, or put forward such substantial evidences of good faith as would show that it is prepared to commence business, the Government would be justified in giving the most serious consideration to the question of giving such company such support as in their wisdom they may deem expedient and in the public interest. Your committee again respectfully directs the attention of the Government to a matter dealt with in the report of last year—viz., the placing within easy reach of the farmers of Nova Scotia of literature dealing with scientific improvement of the soil and fertilization of worn-out lands. The importation and distribution of thoroughbred stock by the Government has heretofore been met with approval, and your committee is of

opinion that a continuation of this policy commensurate with the resources of the province is highly desirable."

Fisheries.—The yield of the provincial fisheries in 1897 was \$899,346 in value. The principal fish thus caught were salmon, mackerel, herring, cod, haddock, lobster, hake, and pollock. The bounties paid by the Dominion in 1897 amounted to \$102,084, and the number of fishermen was 17,371. The value of the boats and material engaged was \$3,149,174. A good deal of public attention was paid to the provincial fisheries during the year, and a special committee of the Legislature reported on March 28, 1899, as to their condition in the following terms:

"Your committee appointed to consider the state of the fisheries of Nova Scotia generally, and practically to inquire into the desirability of establishing a system of cold-storage depots along the coast, to insure a constant supply of fresh bait for bank and shore fishermen and for the preservation in a fresh state of a portion of the catch and its shipments in refrigerators by water and rail to distant markets, beg to report as follows: The committee met twice, and the meetings were attended by masters of vessels and fishermen engaged in the bank fishing, shore fishermen, and merchants engaged in supplying the business. The need of bringing within the reach of fishermen the means of developing to the utmost the fishing industry of Nova Scotia is urgent. The value of the fisheries of the province a few years ago was about \$8,000,000, and dur-

ing the last few years it has greatly diminished. Evidence from practical men all along the coast shows that scarcity of bait occasions great loss of time to both shore and bank fishermen. It was asserted that bank schooners frequently lost from four to six weeks out of a season of five months on account of having to leave the banks to hunt about the coast for bait, and that this loss would be reduced by two thirds if the schooners were provided with small refrigerators, which could be supplied with certainty at bait-supply depots. It was also asserted by many persons that from twenty to fifty days are lost each year by the shore fishermen from the same cause, and that each shore fisherman would be benefited to an extent of \$25 to \$50 yearly if a permanent bait supply was within easy reach. It appears that the annual value of the industry may be increased to an extent of half a million dollars by the establishment of a system of bait depots along the coast, and that by this means a still further increase in the value of the catch may be obtained by holding in cold-storage depots a portion of the most valuable fish to be shipped in a fresh state to Canadian, American, and British markets. Six or eight large refrigerators at convenient ports of call for bank fishermen would to a large extent meet the requirements of the province. The large refrigerators can be constructed for \$2,000 each. Smaller ones, suitable for local needs, for \$500 to \$1,000 each. We urge that the Dominion Government be requested to bonus a number of refrigerators."



OBITUARIES, AMERICAN. **Adams, Julius Walker**, civil engineer, born in Boston, Mass., Oct. 18, 1812; died in Brooklyn, N. Y., Dec. 13, 1899. He was appointed to the United States Military Academy, but in 1832 became assistant engineer of the Stonington and Providence Railroad. In 1835 he was assistant engineer of the Paterson and Hudson Railroad, and from that time he was connected with many railroads in the capacity of chief engineer. He was also connected with the United States service in the survey of harbors and lighthouses and of the Connecticut river. In 1845 he was resident engineer of the United States dry docks at Brooklyn and engineer for the Boston waterworks. From 1850 for several years he was consulting engineer of the city of New York. He designed the sewerage and drainage system of Brooklyn in the years 1857-'60. In 1860 he was colonel of the engineers of the 2d Division, New York State militia; in June, 1861, he was commissioned colonel of the 1st Regiment of Long Island Volunteers, and he served under Gen. McClellan in the Army of the Potomac. In November, 1862, he was appointed colonel of the 2d Hawkins Zouaves, and he was in command of the troops stationed in Printing House Square during the draft riots in 1863. As early as 1855 he had agitated the necessity of a bridge between Brooklyn and New York city, and after his return from the war he interested William C. Kingsley in the project, the result being the incorporation, Feb. 4, 1865, of the East River Bridge Company. In the early period of the construction of the big bridge he held various posts in connection with it. In 1881-'82 he was the editor of Engineering News. He was the last surviving member of the 12 founders of the American Society of Engineers, and was also a member of the New York Academy of Science

and of the American Association for the Advancement of Science.

Agnew, John T., merchant, born in New York city, Oct. 13, 1815; died there, Nov. 29, 1899. He was in the wholesale tobacco business from 1837 till 1869. He was closely connected with the old volunteer fire department, and was also a member of the Dock Board that built the sea wall around the Battery. He was one of the trustees of the Brooklyn Bridge from 1877 to 1885, the period of its construction. He was a presidential elector on the Cleveland and Hendricks ticket in 1884, and he served in recent years on several citizens' committees as a representative Democrat and business man.

Alexander, Joseph, manufacturer, born in Newburg, N. Y., in 1804; died in South Orange, N. J., Jan. 30, 1899. For many years, beginning with 1829, he was a manufacturer of paper molds in Springfield, N. J. He was a remarkable penman, and in his later years spent much time in writing souvenirs for his friends. On a piece of paper the exact size of a postal card he repeatedly wrote the 119th Psalm and 5 of the following psalms, a total of 214 verses, 3,000 words, and 12,400 letters, and he embellished the four corners with the Lord's Prayer, written in a space the size of a 10-cent piece.

Alexander, Robert C., lawyer and journalist, born in West Charlton, N. Y., July 7, 1857; died in New York city, Nov. 4, 1899. He was graduated at Union College with first honors in 1880, and at the Albany Law School in 1881, and for three years thereafter he practiced law in Elmira, N. Y. Removing to New York city in 1884, he became counsel for Col. Elliott F. Shepard, and as such he negotiated the sale of the Mail and Express by Cyrus W. Field to Col. Shepard. He became secretary of the new corporation, and was also

private counsel for Col. Shepard. On the death of Col. Shepard, Mr. Alexander and R. E. A. Dorr carried on the paper for the Shepard estate until 1897, when they became owners. At that time Mr. Alexander was treasurer and editor and Mr. Dorr was president and publisher. He resigned the trusteeship in 1898. He was a trustee of Union College, and he organized and was two years president of the Adirondack League Club.

Alger, Horatio, author, born in Revere, Mass., Jan. 13, 1834; died in Natick, Mass., July 18, 1899. He was graduated at Harvard in 1852, and several years later at the Cambridge Divinity School. He was ordained pastor of the Unitarian Church at Brewster, Mass., in 1864, but removed to New York city in 1866 and devoted himself to the writing of books for young people. The literary quality of his work is very slight, but it is morally unexceptionable. His books include *Bertha's Christmas Vision*; *Nothing to Do*, a poem; *Frank's Campaign*; *Helen Ford*, a novel; *Paul Preston's Charge*; *Abraham Lincoln*, the *Backwoods Boy*; *Ben the Luggage Boy*; *Bob Burton*; *Bound to Rise*; *Brave and Bold*; *Charlie Codman's Cruise*; *Dan the Detective*; *Do and Dare*; *The Errand Boy*; *Fame and Fortune*; *Frank Fowler*; *From Canal Boy to President*; *Grandfather Baldwin's Thanksgiving*, with *Other Ballads and Poems*; *Helping Himself*; *Herbert Carter's Legacy*; *Hector's Influence*; *Jack's Ward*; *Joe's Luck*; *Julius*; *Luck and Pluck*; *Mark the Match Boy*; *Paul the Peddler*; *Phil the Fiddler*; *Ragged Dick*; *Risen from the Ranks*; *Rough and Ready*; *Rufus and Rose*; *Sam's Chance*; *Shifting for Himself*; *Sink or Swim*; *Slow and Sure*; *The Store Boy*; *Strive and Succeed*; *Strong and Steady*; *Tattered Tom*; *The Telegraph Boy*; *Tom the Bootblack*; *Tom Temple's Career*; *Tony the Hero*; *Try and Trust*; *Wait and Hope*; *Young Adventurer*; *Young Circus Rider*; *Young Explorers*; *Young Miner*; *Young Outlaw*; *Only an Irish Boy*; *Erie Train Boy* (1890); *Struggling Upward* (1890); *Young Boatman of Pine Point*; *Dean Dunham* (1891); *Five-hundred-dollar Check* (1891); *Digging for Gold* (1892); *Facing the World* (1892); *In a New World* (1893); *Victor Dane* (1894); *Adrift in the City* (1895); *Odds against Him* (1896); *Frank Hunter's Peril* (1896); *The Young Salesman* (1896); *Frank and Fearless* (1897); *The Young Bank Messenger* (1898).

Ames, Oakes Augier, manufacturer, born in North Easton, Mass., April 15, 1829; died there, Sept. 19, 1899. He was the eldest son of Oakes Ames, of Credit Mobilier and Union Pacific Railroad fame, and a brother of the late Oliver Ames, ex-Governor of Massachusetts. Oakes Augier spent his business life in close attention to the extensive shovel manufactory with which the Ames family has been connected for many years, resisting all inducements to enter political life. He entered the shovel factory when eighteen years old, and became superintendent of the concern in 1873 and president in 1877. As a member of the old firm of Oliver Ames & Sons he participated in the gift of a schoolhouse to North Easton. In association with his brother Oliver he erected a public hall in the town at a cost of \$60,000 and placed a costly window in the Unitarian Church, both in memory of his father. The Ames corporation also gave the town the plot of 9 acres.

Andrews, George Leonard, military officer, born in Bridgewater, Mass., Aug. 31, 1828; died in Brookline, Mass., April 4, 1899. He was graduated at the United States Military Academy at the head of his class in 1851; entered the army as brevet second lieutenant of engineers; was pro-

moted second lieutenant in 1854; and resigned to engage in civil engineering, Sept. 1, 1855. On May 25, 1861, he was commissioned lieutenant colonel of the 2d Massachusetts Infantry, of which he became colonel on June 13, 1862. For highly meritorious services in the battles of Winchester, Cedar Mountain, and Antietam he was promoted brigadier general of volunteers in November following. In the campaigns of the Army of the Gulf he served as chief of staff to Gen. N. P. Banks, and received the surrender of the Confederates under Gen. Frank Gardner at Port Hudson, La. As chief of staff to Gen. E. R. S. Canby he rendered such important service in the operations against Mobile and its defenses that he was brevetted major general of volunteers, March 26, 1865. In August following he was mustered out of the volunteer army and resumed civil engineering. After holding the office of United States marshal for the district of Massachusetts for four years, he was appointed Professor of French at the Military Academy, Feb. 28, 1871, and June 30, 1882, was advanced to the chair of Modern Languages. He was retired with the pay of colonel, Aug. 31, 1892. Gen. Andrews was one of the 15 officers named in the Army Register who received commissions "for specific distinguished services." He participated in several of the most venturesome exploits of the civil war, and at Mobile he personally conducted large numbers of troop ships through the harbor, then filled with mines and torpedoes.

Anthony, James Danelly, clergyman, born in Abbeville District, S. C., in 1825; died in Savannah, Ga., Jan. 26, 1899. He was a son of the Rev. Whitfield Anthony, and in early youth accompanied his parents to the Cherokee district in Georgia, where he was reared among the Indians. In 1846 he united with the South Georgia Methodist Conference, with which he remained through life, excepting a period of service in Alabama. During the fifty years of his active ministry he had held the highest offices his conference could confer, and because of his almost continuous service in the one field he was popularly known as "Bishop of the Wiregrass." In late years he wrote his memoirs, which at the time of his death had passed through two editions.

Appleton, William Henry, publisher, born in Haverhill, Mass., Jan. 27, 1814; died at Riverside, N. Y., Oct. 19, 1899. His father, Daniel Appleton, born in Haverhill, Mass., in 1785, was a dry-goods merchant in Haverhill, and afterward in Boston. The son's education was obtained at private and public schools in Haverhill, and at Phillips Academy, Andover. In 1825 Daniel Appleton removed to New York. Soon after his arrival he decided to engage in bookselling, and he was joined in the venture by his brother-in-law, Jonathan Leavitt, a bookbinder. Half of his little store in Exchange Place was devoted to dry goods and half to books, and this new department was placed under the charge of William H. Appleton, then a clerk in his father's employ. It was a time when, as Mr. Appleton once said in an interview, "Exchange Place was a promenade for ladies, and fashionable life was found down around the Battery and Bowling Green." The book business, which consisted of importation of foreign books and their sale at retail, prospered in the hands of father and son, and after a short time Mr. Leavitt left the firm and Daniel Appleton devoted himself altogether to the book business, which was removed to the old Clinton Hall. In 1831 the house published its first book, of which William H. Appleton said a few years since: "This book was about three

inches square and half an inch thick, but its publication caused the firm of D. Appleton & Co. more anxiety than the American Cyclopædia, undertaken some thirty years later. The little book was called *Daily Crumbs from the Master's Table*, and consisted of selections from Bible texts. We sold about a thousand 'Crumbs,' and were very well satisfied—so well, indeed, that we followed it by a similar book, which was equally successful. The third book we published was called *A Refuge in Time of Plague and Pestilence*, and it had an enormous sale, for it appeared in 1832, the terrible cholera year, and the public mistook it for a treatise on that disease, whereas it was a religious volume, pointing out Christ as the refuge." With the growth of the business, which still consisted for the most part of the sale of foreign importations, it became desirable

year before his death. In 1838 also the business, which had been growing rapidly, was removed to No. 200 Broadway. One of the successful ventures of that time was the publication of Tract No. 49 and other products of the Tractarian controversy. The firm had been best known as jobbers in domestic and imported books, but their publishing enterprises soon became more extensive. The output included several editions of the *Prayer Book*, *Ure's Dictionary*, the works of Byron and Moore, and a series known as *Tales for the People*, which proved to be some of the most successful publishing ventures of the period. In 1848, when Daniel Appleton retired from the house he had founded, the firm was reorganized, and William H. Appleton became its head, with his brothers John Adams and Daniel Sidney as partners. Later he was joined by his brothers Samuel Francis and George Swett. In the arrangements for two of the most important publishing enterprises undertaken by this house William H. Appleton had a leading part. One was the publication of the *New American Cyclopædia*, under the editorship of George Ripley and Charles A. Dana; and the other was the introduction of Darwin, Huxley, Tyndall, and Spencer to American readers. In 1857 the first of the 16 volumes of the *Cyclopædia* appeared. In spite of the great panic of 1857 and interruptions due to the civil war, the work, which cost \$500,000 before there was any return, was carried to a successful completion in six years under the supervision of Mr. William H. Appleton and his brothers. In 1876 a revised edition of the *American Cyclopædia* was completed at an initial cost of more than \$500,000. Through the late Prof. Edward L. Youmans the Messrs. Appleton became the publishers of Darwin and others of the group associated with him. One result of this enterprise, which seems curious now, was the violent criticism of the firm by clergymen. Among the many personal appeals made to William H. Appleton against these books was one from a bishop, who warned him that he would be punished in this world and the world to come. Mr. Appleton replied by asking whether he was to be held responsible for converts to Rome made by the Pusey books, which were published on the bishop's advice. Throughout his career Mr. Appleton, himself a strong Churchman, took the position that, while a publisher should decline immoral or absolutely irreligious books, he was at liberty to issue books representing radically different phases of belief without the presumption that his imprint meant indorsement. Among the many other large affairs in which Mr. Appleton took an important part were the publication of Webster's *Speller*, of which more than 1,000,000 copies a year were sold, Benton's *Thirty Years' View* in Congress, Disraeli's *Lothair*, *Picturesque America*, and the *Popular Science Monthly*. The first volume of Prof. McMaster's *History of the People of the United States* was read and accepted by Mr. Appleton himself. The history of his life is practically the history of the house. The part that Mr. Appleton took personally in laboring for international copyright was most active and honorable, and there is probably no one living whose relation to this long struggle has been approximately so close. He was convinced very early in his active life of the injustice done to authors and to all who were interested in literary property by the failure of this country to respect its rights. In 1853 he addressed a letter to Edward Everett advocating an international arrangement as a matter of justice and sound policy. In 1871

to form closer relations with foreign publishers, and in 1835 William H. Appleton crossed the ocean in a sailing vessel to make his business known abroad. While in London he met John Murray, whose relations with Byron, Scott, Southey, and others are a part of the annals of literature, and the meeting was the beginning of a family friendship. He was also welcomed by Thomas Norton Longman, then the senior member of a firm that dates from the first half of the eighteenth century. At a dinner given, as was Mr. Longman's custom, in a room over the store, Mr. Appleton met Thomas Moore, of whose humor and geniality the young American naturally retained a vivid impression. In the course of a visit to Germany, which followed his stay in England, Mr. Appleton met the elder Tauchnitz, founder of that well-known publishing house. In January, 1838, William H. Appleton was taken into partnership with his father, and the firm assumed the familiar title of Daniel Appleton and Company, the name always signed officially in full in accordance with the request which the founder made of his son William when he retired from business, in 1848, the

he renewed his public advocacy of such a measure, and drafted an international copyright bill which contained many of the features embodied in the act adopted in 1891. His long championship of the cause of honest books was recognized by his brother publishers in his election as first president of the American Publishers' Copyright League, Dec. 29, 1887. Mr. Appleton's part in the conduct of the firm's business continued from his first experience with his father in Exchange Place, through the successive removals of the business, until after the firm occupied its present building at No. 72 Fifth Avenue. His business career showed a courage and largeness of view equal to the greatest enterprises, and the fortitude and wisdom necessary when fortune seemed adverse or results were long delayed. He was in every way a commanding figure, and his sagacity, far-sightedness, coolness, grasp of affairs, and singular executive ability were shown in many fields of effort outside of the business to which his life was primarily devoted. For nearly fifty years he was a trustee of the New York Life Insurance Company, and the fortieth anniversary of his election to this office was recognized by the presentation of a handsome testimonial prepared by his associates. His services as chairman of the Committee on Finance for an extended period form of themselves a remarkable record. For many years he was a director of the Delaware, Lackawanna and Western Railroad, and a trustee of the Institution for the Savings of Merchants' Clerks. He had been a director of the Central Trust Company and the New York Security and Trust Company. He was long the senior warden of St. Bartholomew's Church. His loyal interest in his church was illustrated, to cite but one instance, in the erection and endowment of the Appleton Church Home for Orphan Girls at Macon, Ga. Mr. Appleton became one of the first members of the Century Association, and with the exception of Daniel Huntington, whose membership began with the Sketch Club, which preceded the Century, he was the oldest living member. His date of election was 1847. He became a member of the Union Club in 1863, and was twice elected vice-president. He was a member of the Riding Club, the Aldine and Players' Clubs, and many other organizations. He married, April 16, 1844, Mary Worthen, of Lowell, Mass. His children now living are Miss Mary Appleton, William Worthen Appleton, and Henry C. Appleton. One daughter, Kate, who married H. Seymour Geary, died in 1873.

Armstrong, William, historical character, died in Ashland, Cass County, Ill., in May, 1899. In 1857 he and James H. Norton were accused of causing the death of James Metzger, in Menard County. Norton was tried in that county, found guilty, and sentenced to eight years' imprisonment in the penitentiary. Armstrong secured a change of venue to Cass County, and was tried in Beardstown in 1858. Abraham Lincoln volunteered to take charge of the case without fee as an obligation of gratitude. During the trial a witness for the prosecution, one Allen, testified that he could see the fatal blow struck by the light of the moon, which at midnight, he swore, was shining brightly. To contradict this apparently strong testimony Mr. Lincoln produced an almanac for 1857, and called the attention of the court and jury to its record that the moon did not shine on the night of the murder till several hours after midnight. This presentation was the most potent factor in the acquittal of the accused. Several years afterward Mr. Lincoln was charged with having had the almanac that he

exhibited in court prepared for the purpose by means of an inserted fictitious page. This allegation has been repeated many times, and appears in several published biographies. As the question has been revived by the death of Armstrong, it may here be noted that in an address before the Kansas Bar Association several years ago Judge Bergen, who lived in Ashland at the time and was in constant attendance at the trial, denied the charge against Mr. Lincoln.

Atherton, Alice (Mrs. William Edouin), actress, born in Cincinnati, Ohio, Aug. 25, 1854; died in New York city, Feb. 4, 1899. She was the daughter of an Irishman named Hogan. At the age of three she made her first effort on the stage at the National Theater in her native city as the child Marie in the melodrama *The Sea of Ice*. For four years she played with the company of this theater such parts as Eva in *Uncle Tom's Cabin*, Little Pickle in *The Spoiled Child*, and *The Young Actress* in the farce of that name. In 1862 she became a member of the Opera House company in Louisville, where she identified her remarkable talents with the soubrette rôles of the regular drama, and in the following season (1863-'64) she occupied the same position at Wood's Theater, Louisville. After the civil war she was engaged for four seasons with the company playing in Mobile, Ala. Her ability as a comedienne brought her into association with the Lydia Thompson burlesque troupe, which she joined at Detroit, Mich., in February, 1869. After traveling with that company for a season she was engaged for Wood's Museum, New York city (now Daly's Theater), where for three years she played all kinds of parts, as she used laughingly to say, "naughty girls, nice girls, rich girls, poor girls, starving mothers, and hungry boys, pages, soldiers, sailors, and saints." She returned to the Lydia Thompson company in 1873, and in December of that year married Willie Edouin, a popular comedian, at that time a principal member of the Thompson troupe. Thereafter Miss Atherton and her husband played together. At the opening of the season of 1877, on Aug. 27, *Oxygen*; or, *Gas in a Burlesque Meter*, at Wallack's Theater, gave Miss Atherton her first recognition as a burlesque actress from a metropolitan audience. She appeared as Queen Ylang-Ylang in *Robinson Crusoe* on Sept. 12 of the same year with similar success. When *The Babes in the Wood* was produced at the Eagle Theater, New York, she made a hit as one of the babes. A burlesque company formed by Samuel Colville was headed by Mr. and Mrs. Edouin for two years (1878-'79) in successful performances throughout the country. Rice's *Surprise Party* was organized in 1879, and Miss Atherton and her husband were its principal fun makers until the organization of a company by Mr. Edouin and Mr. Sanger in 1880 to play one of the first of the distinctively original American farce comedies, called *Sparks*. With this comedy and *Dreams*; or, *Fun in a Photograph Gallery*. Mr. and Mrs. Edouin traveled over the United States and Canada for half a dozen years, making much merriment for others and innumerable friends for themselves and their wholesome play making. The good fortune of their American ventures caused a trip to England, where they were so well received that in 1888 Mr. Edouin took a lease of the Strand Theater, and on Feb. 25 of that year Kate, the *Family Help*, was produced with Miss Atherton in the title part. The London public took her into great favor at once. On April 4 she appeared as *Airey Annie* in Burnand's travesty of *Ariane*. On June 30 she made an-

other hit as Collie Parker in *Run Wild*, and so for several years Miss Atherton identified herself with her husband's management of the Strand Theater. Her specially notable performances were Mimi Mahew in *Our Daughters*, Lady Betty Vane in *A Night's Frolic*, and Jeffie in *Hans the Boatman*. In 1892 she appeared at the Opera Comique, and subsequently at several of the popular music halls of London. In November, 1897, she returned home and became a popular favorite in the various vaudeville theaters of different cities. Her last appearance was at Hyde & Behman's Theater, Brooklyn, Jan. 27, 1899.

Atkinson, William Yates, lawyer, born in Oakland, Ga., Nov. 10, 1854; died in Newnan, Ga., Aug. 8, 1899. He was a son of John P. Atkinson, a farmer and teacher, and brother of Prof. T. E. Atkinson, who prepared him for college. He was graduated at the University of Georgia in 1877, was admitted to the bar in 1878, and established himself in Newnan. In 1879 Gov. Colquitt appointed him solicitor of the Coweta County Court, an office he held for three years. He was elected to the Legislature in 1886, 1888, 1890, and 1892, and in the last year was Speaker of the House. During 1890-'94 he was chairman of the Democratic State Executive Committee, and in 1894 and 1896 he was elected Governor of Georgia. He was an advocate of free silver and an income tax; founder of the Georgia Normal and Industrial College for Girls, at Milledgeville, and president of its Board of Trustees; and a trustee of the University of Georgia.

Bailey, Isaac Hazeltine, journalist, born in Yarmouth, Me., in May, 1819; died in New York city, March 24, 1899. He was a direct descendant of John Alden and Priscilla Mullins. When eleven years old he was apprenticed to the printer's trade, but subsequently spent several years at sea, and in 1837 went to New York and entered the leather house of Gideon Lee. About ten years afterward he went into the leather business in partnership with George Palen and William B. Isham. The firm speedily became conspicuous in the trade, and Mr. Bailey was influential for many years in adjusting disputes between merchants and customers in the trade. He entered political life at an early age, first as an earnest abolitionist and later as an original adherent of the Republican party. In 1859 he was appointed a police commissioner of the city, and in 1873-'76 he was a commissioner of the Board of Charities and Correction. In 1873 also he was appointed receiver of the National Bank of the Commonwealth, which failed in the panic of that year, and was an unsuccessful candidate for Congress. Two years afterward he became editor and proprietor of *The Shoe and Leather Reporter*. He held these posts till 1882, when the paper passed to a corporation, which continued him as editor till his death.

Baiz, Jacob, merchant, born in Barcelona, Venezuela, about 1839; died in New York city, June 20, 1899. He was brought to New York in childhood, was educated there, and was engaged in the commission business till his death. For many years he was the consul general of the republics of Guatemala, Salvador, and Honduras. In 1878 he was appointed *chargé d'affaires* for Honduras in Washington, and while holding the office was instrumental in preventing a steamer from leaving New York with munitions of war for the insurgents, for which service the Honduran Government commissioned him a brigadier general. During his business career he was influential in developing trade between the United States and Central America. He was the first

merchant to introduce into this country the famous brand of Guatemala coffee raised by ex-President Barrios.

Bardwell, Elizabeth Miller, educator, born in Colrain, Mass., Dec. 4, 1831; died in Greenfield, Mass., May 27, 1899. She was a daughter of Amos Bardwell, for many years active in the public affairs of Colrain, and was educated for a teacher. After leaving Shelburne Falls Academy, she taught till she entered Mount Holyoke Seminary, where she was graduated in 1866. In the following year she became an instructor there, and for twenty years she taught at different times algebra, trigonometry, and physics, as well as astronomy, but after 1886 she devoted herself wholly to the last branch. In the interest of her department she had visited the observatories at Washington, Princeton, Berlin, and Potsdam, and the Lick in California. Prof. Bardwell was a member of the Astronomical Society of the Pacific and of the British Astronomical Association.

Baker, David Jewett, jurist, born in Kaskaskia, Ill., Nov. 20, 1834; died in Chicago, Ill., March 13, 1899. He was a son of United States Senator David J. Baker, and was graduated at Shurtleff College in 1854. He was admitted to the bar in 1856, and began practice in Cairo, Ill. He was always a warm supporter of the Republican party. In 1864 he was elected mayor of Cairo, in March, 1869, judge of the 19th Judicial District, and in June, 1873, judge of the 26th District. On the organization of the Appellate Court in 1877 he was assigned by the Supreme Court to be one of the three judges of the 4th District. In 1878 he was appointed a justice of the Supreme Court of Illinois to fill the vacancy caused by the death of Judge Sidney Breese, and in 1888 he was elected to the bench of that court, on which he served nine years. At the expiration of his term he removed to Chicago.

Baker, Lewis, journalist, born in Belmont County, Ohio, Nov. 7, 1832; died in Washington, D. C., April 30, 1899. He received a common-school education, was apprenticed to the printer's trade when sixteen years old, and, excepting the period of his diplomatic service, spent his active career in journalism. When twenty years old he edited the *Jeffersonian* in Cambridge, Ohio. Subsequently he was associated with Samuel S. Cox in conducting the *Daily Ohio Statesman* in Columbus, and owned and edited the *Wheeling Daily Register* and the *St. Paul Globe*. He was admitted to the bar, but never practiced. While editing his paper in Wheeling, W. Va., from 1863 till 1884, he served on the Democratic National Committee and as president of the State Senate, and was a leader in West Virginia politics. In 1885 he bought the *St. Paul Globe*, which he made a power in the political and commercial development of the Northwest. He was chairman of the Democratic State Committee of Minnesota and delegate at large from that State to the Democratic National Convention in 1892, became interested in several financial corporations in St. Paul, and was active in promoting the educational concerns of the city. In 1893 he was appointed minister to Nicaragua, Costa Rica, and Salvador, and after retiring from that office he passed the remainder of his life in Washington.

Baker, Sarah, actress, born in Philadelphia, Pa., in 1817; died in Holmesburgh, Pa., Sept. 1, 1899. She was a daughter of Charles Porter, an actor and manager, of Philadelphia. Her *début* was made in the Walnut Street Theater, Philadelphia, in the part of Virginia in *Sheridan Knowles's Virginus*, Dec. 17, 1838. She was then engaged for small parts in the Pittsburg Theater,

from which she went again to Burton's company at the Chestnut Street Theater. In 1839, with her father, she was a member of the People's Theater, New Orleans. She remained there two years, and became a favorite juvenile leading woman. For many years she played the sympathetic heroines in legitimate and standard drama with the elder Booth, Edwin Forrest, E. L. Davenport, Charlotte Cushman, and Joseph Jefferson in the cities of the southwest. In the summer of 1853 she made her *début* at the Bowery Theater, New York, as Pauline in the *Lady of Lyons*. Shortly before this engagement she had married J. S. Baker, an actor, at Buffalo. After the civil war, her husband having died in 1863, Mrs. Baker—"Mamma Baker," as her comrades always affectionately called her—became a cherished member of Edwin Booth's successive companies, and occupied the position of old woman therein until about 1890, when she took a similar place in the company of Thomas Keene. Upon Mr. Keene's death, in 1898, she was admitted to the Forrest Home, where she died as gently as she had lived.

Baxter, Elisha, lawyer, born in Rutherford County, North Carolina, Sept. 1, 1827; died in Batesville, Ark., June 2, 1899. He received a public-school education and removed to Batesville soon after attaining his majority. In 1853 he was elected mayor of the city, and in 1854 and 1858 was sent to the Legislature. At the outbreak of the civil war he espoused the national cause and entered the army, becoming colonel of the 4th Arkansas Mounted Infantry in 1863. In 1864 he was elected United States Senator, but was not permitted to take his seat because Arkansas had not been legally reconstructed. From 1868 till 1872 he was judge of the 3d State Judicial District. In the spring of 1872 he was nominated for Governor by the wing of the Republican party which supported President Grant's administration. The Liberal or Greeley wing nominated Joseph Brooks, who also had the support of the Democrats generally. The campaign that followed was one of intense excitement. On Jan. 6, 1873, Judge Baxter was declared elected. His opponent, alleging frauds at the polls, appealed in turn to the Legislature, the State Supreme Court, and the United States Circuit Court without success. He finally brought suit against Judge Baxter in one of the State district courts, and on April 15, 1874, in the absence of Judge Baxter's counsel, obtained a favorable judgment. Thereupon he forcibly ejected Judge Baxter from the Governor's office. Both men now claimed the office, issued proclamations, had armed supporters, and appealed to the President. The situation assumed a serious aspect till Federal troops were sent to Little Rock to preserve the peace. On the opinion of the Attorney-General, President Grant recognized Judge Baxter as the lawful Governor, May 15. The Brooks party immediately disbanded, and Judge Baxter held the office till the autumn of 1874, when the provision of the new State Constitution, reducing the Governor's term from four years to two, took effect. After retiring from the office Judge Baxter resumed practice.

Beckley, Fanny (Mrs. Thomas Allston Brown), actress, born in New York city, July 9, 1842; died there, Jan. 25, 1899. She first appeared as a member of the Marsh troupe of children at the age of sixteen. After two seasons with this traveling company she was for a time a member of Laura Keane's Varieties Theater, from which she went to play juvenile female parts with Edwin Forrest. During the years 1861 and 1862 she was a member of a pantomime and ballet company, and in September, 1862, she mar-

ried Mr. Brown, a journalist of New York city, author of a *History of the American Stage*. After her marriage Miss Beckley retired to private life.

Bissell, Lora C. (born Lora C. Hudson), army nurse, born in Devereux, N. Y., Aug. 4, 1839; died in Buffalo, N. Y., Feb. 6, 1899. She received a good education, and was a successful teacher in the academy at Schenectady at the breaking out of the civil war. At the time of the killing of Col. Ellsworth, in Alexandria, the feeling was intense in that part of the State of New York, and the regiment known as the "Ellsworth Avengers"—the 44th New York Volunteers—was formed. Miss Hudson was one of those most deeply impressed, and she wrote a popular war song, entitled *Ellsworth's Avengers*. The volunteers tendered the young teacher, as the highest compliment, an election as "child of the regiment." Soon after this Miss Hudson volunteered as an army nurse, and she accompanied the 44th to the war and shared in all its fortunes. Her marriage to Lieut. Bissell occurred soon after the war, and from that time she resided in Buffalo. She was a member of the Society of Army Nurses and an honorary member of the regimental association of the 44th.

Blair, Charles W., lawyer, born in Georgetown, Ohio, in 1820; died in Kansas City, Mo., Aug. 21, 1899. For several years he was active in the political affairs of his native State, and he was once defeated for Lieutenant Governor on the Democratic ticket by a small majority. In the civil war he assisted in raising the 2d Kansas Regiment, organized the Blair Battery, and became colonel of the 7th Cavalry, and at the close of the war was brevetted brigadier general of volunteers. At the time of his death he was attorney for the Kansas City, Fort Scott and Memphis Railroad Company.

Blair, John Insley, born near Belvidere, N. J., Aug. 22, 1802; died in Blairstown, N. J., Dec. 2, 1899. The Blair family, from which he descended, came from Scotland in 1720 and settled in Hunterdon County, N. J., the founder of the American branch being John Blair. In the latter part of the eighteenth century Samuel Blair, great-grandfather of John I. Blair, was sent by a Philadelphia firm to take charge of the iron works at Oxford Furnace, Warren Co., N. J. Mr. Blair's father moved to the Delaware to look after

the shipping of the iron from this furnace, and there John I. Blair was born. Later the family moved to a farm on Beaver Creek, a short distance from Hope, where young Blair passed the first few years of his life. As was usual with country boys in those days, he attended the country schools in winter and helped his father during the summer. The first manifestation he gave of his rare business instincts and his indomitable determination was when he announced to his mother that his brothers and sisters needed education, therefore he would have to get rich. This incident, the starting point in his financial career, took place when he was only ten years old. The



same year he became a clerk in a general store in Hope, and so closely did he devote himself to his work that at fourteen he was looked upon as a good merchant, and at nineteen he embarked in business for himself, opening a country store in what is now Blairstown. The venture, despite the fact that the surrounding country was almost a wilderness, prospered, and in the course of a few years Mr. Blair found himself able to extend his business by opening branch stores in several places, each of which he placed in charge of a brother or a brother-in-law, thus laying the foundations of several large fortunes. An important factor in his business was his trading in country produce, for which he found a ready market in New York city. As his fortune grew he devoted his talents to the encouragement of the iron industry at Oxford Furnace, where operations had been going on ever since William Penn settled in Pennsylvania. The necessity for means of transporting the metal to the seaboard led Mr. Blair and others to organize the Lackawanna Coal and Iron Company, out of which has grown the great system of the Delaware, Lackawanna and Western Railroad. In the early days of the settlement of the great West Mr. Blair found ample opportunity for the exercise of his rare judgment and untiring energy, and his name was connected, either as builder or director, with 25 different lines. Mr. Blair was one of the original directors of the Union Pacific Railroad. He was also a director in the following companies: The Warren Railroad, the Blairstown Railroad, the Delaware, Lackawanna and Western, the New York, Susquehanna and Western, the Chicago and Northwestern, the Burlington, Cedar Rapids and Northern, the Sioux City and Yankton, the Sioux Falls and Dakota, the Chicago and Pacific, the Chicago, Iowa and Dakota, the Kansas City and Southern, the Cedar Rapids and Missouri River, the Green Bay and Western, the Sioux City and Pacific, the Iowa Falls and Sioux City, the Chicago, Iowa and Nebraska, the Fremont, Elkhorn and Missouri Valley, the Maple River, Sussex and Mount Hope, the Cayuga and Susquehanna, and the Bangor and Portland. In connection with his railroad building Mr. Blair received enormous grants of public lands, and it has been said that as he built and owned in his lifetime more railroads than any one man in the world so, at one time and another in his life, he owned more land than any other man in the world. He formed land companies, and these companies, under his direction, laid out the sites for what are now more than 100 flourishing cities and towns in the West. In his railroad building it was Mr. Blair's custom to take a road that somebody had begun and failed to complete, rebuild it entirely or complete it, and then lease it or sell it to a trunk line after connecting it with the trunk line. In this way he made a profit on the railroad building, acquired great quantities of valuable land, and made still more money by selling or leasing the road he had thus rehabilitated. The last road that Mr. Blair built was the Kansas City, Osceola and Southern. This was completed in 1898 and turned over to the St. Louis and San Francisco Railroad to operate for a term of years. Mr. Blair was always identified with the Republican party, and with two exceptions he attended all the national conventions in the capacity of a delegate. In 1868 he was defeated by Theodore F. Randolph in the contest for the governorship of New Jersey, but, aside from this, he was never a candidate for public office. He had the distinction for several years of being the oldest bank president in the

country. He contributed an endowment fund of \$150,000 to the Presbyterian Academy in Blairstown, which bears his name, and he also founded professorships in Princeton University and Lafayette College, and in 1897 erected a large dormitory at Princeton, which bears his name, besides giving generous aid to Western colleges. To the Presbyterian Church as a whole he gave large sums, and more than 100 churches of that denomination owe their existence to his liberality.

Blake, John H., scientist, born in Boston, Mass., in 1808; died there, July 5, 1899. He was the youngest son of Thomas Blake, a lieutenant in the 1st New Hampshire Regiment in the Revolutionary War, and was one of the earliest graduates of the Boston High School. When eighteen years old he established a laboratory at Jamaica Plain for the manufacture of pure chemicals, and here was made the ether that was used in the first experiments in anesthesia. In 1835 he went to South America to investigate the extensive niter beds over which Chili and Peru subsequently quarreled. The outcome of this journey, in addition to its commercial importance, was a geologic and geodetic survey and exploration of the Atacama region and an exploration of the prehistoric graves at Tacna, the results of which are in the Peabody Museum, at Cambridge. On his return from South America Mr. Blake took charge of the copper mines at San Fernando, Cuba, subsequently explored a portion of the Isle Royale region near Lake Superior, and then settled in Boston as a consulting chemist and civil engineer, also filling many important business and administrative posts.

Bland, Richard Parks, legislator, born in Ohio County, Kentucky, Aug. 19, 1835; died near Lebanon, Mo., June 15, 1899. Left an orphan at an early age, he was compelled to earn his own living, and for four years he worked on a farm. From his small wages he saved enough to enable him to attend school in winter. When eighteen years old he took a teacher's course for one year in the Hartford (Ky.) Academy, and then taught three terms in Kentucky and Missouri. In 1855 he went to California. Ten years were passed in that State, Nevada, and Colorado in teaching and studying and practicing law, and he was admitted to the bar in Utah in 1860. During this period he also served a term as treasurer of Carson County. In 1865 he opened a law office in Rolla, Mo., and, after practicing there three years, settled in Lebanon, where he combined law, politics, and farming. In 1872 he was elected to Congress as a Democrat, and he was re-elected to each succeeding Congress till 1894, when he was defeated by Dr. T. D. Hubbard, Republican. In the next election he in turn defeated Dr. Hubbard, and he then held his seat till his death. Mr. Bland will be longest remembered by reason of his intimate connection with the silver movement. From the beginning of his long congressional career till his death he was the most conspicuous champion of free-silver coinage. He voted for the famous inflation bill of 1874, which President Grant vetoed, and opposed the bill of 1875 for resumption of specie payments. In 1876 he introduced a bill providing for free coinage of silver, which was afterward amended by the Senate into a limited purchase, and in that form was passed over President Hayes's veto in 1878. This bill called for the coinage of \$2,000,000 worth of silver a month, and remained in force till repealed by the Sherman act of 1890. In 1891 and 1893 Mr. Bland was chairman of the Committee on Coinage, Weights, and Measures, of which he was before and afterward a member. From 1878

till his death he neither neglected an opportunity nor spared an effort to induce the House to pass an out-and-out free-coinage measure.

Bonner, John, author, born in Quebec, Canada; died in San Francisco, Cal., May 5, 1899. In early life he removed to New York city and engaged in literary work. He was connected for some time with Harper's Weekly, and for several years was the Wall Street reporter of the Herald. His experience in the last post induced him to become a stockbroker. In 1878 he failed for a large amount, and soon afterward he returned to literature. Since 1882 he had resided in San Francisco, where he had been connected successively as leading editorial writer with the Call, the Chronicle, and the Bulletin, and had also corresponded with Eastern newspapers. He prepared a series of popular child's histories, covering France, the United States, Greece, Rome, and Spain, the last being published in 1894.

Bonner, Robert, publisher, born near Londonderry, Ireland, April 28, 1824; died in New York city, July 6, 1899. At the solicitation of an uncle who had become a prosperous farmer near Hartford, Conn., he came to the United States in 1839, and first found employment in the composing room of the Hartford Courant at \$25 a year and "found." In 1844 he removed to New York city to take the place of proof reader and assistant foreman on the Evening Mirror. While holding this place he also became the New York correspondent of the Hartford Courant and of newspapers in Albany, Boston, and Washington. He also while here displayed such originality and attractiveness in setting up advertisements that he made a handsome contract to do such work for the Merchants' Ledger, a small business periodical. Seven years after reaching New York he had saved enough money to buy the Merchants' Ledger plant. The name was changed to the New York Ledger, and the paper passed from a purely commercial to a literary publication. His first bold venture was to engage Fanny Fern to write a story at a cost of \$100 a column; the next was the spending of his last dollar in advertising the fact. Both proceedings were unprecedented at the time. Fanny Fern was paid \$1,000 for her story Fanny Ford, Henry Ward Beecher received \$30,000 for his Norwood, Alfred Tennyson's check for a very short poem was \$5,000, and Charles Dickens received a like amount for the only story he ever wrote for an American publication. Mr. Bonner often spent \$25,000 a week for weeks at a time in advertising his paper. He maintained his direct management of the Ledger till 1887, when he transferred the property to his three sons and retired. Mr. Bonner was widely known as an owner and driver of fast trotting horses, which constituted his chief recreation. He aspired to be the owner of the fastest trotting horses in existence, and whenever he purchased a record breaker the animal was at once withdrawn from all public racing. He owned a large stock farm near Tarrytown, N. Y., where he bred some remarkable horses. His expenditure for fast horses exceeded \$600,000. The most notable ones and their cost were: Pocahontas, \$40,000; Dexter, \$35,000; Edward Everett, \$20,000; Maud Macy, \$10,000; Edwin Forrest, \$16,000; Rarus, \$36,000; Maud S., \$40,000; Sunol, \$41,000; and Russell, \$10,000. Mr. Bonner gave Princeton College \$19,000 for its gymnasium fund, the sufferers in the Chicago fire \$10,000, and the Fifth Avenue Presbyterian Church \$130,000. He was known as a generous supporter of many charitable institutions and causes, but his aversion to publicity placed an injunction of secrecy

on most of his benefactions. Toward the close of his life he attributed his worldly advantages to three rules he had steadfastly observed: "Never bet; never borrow money; never give a note."

Boone, Thomas Carroll, telegrapher, born in Annapolis, Md., in 1876; died in Boston, Mass., March 19, 1899. He was a direct descendant of Daniel Boone and of Charles Carroll of Carrollton. He became an expert telegrapher, and under President McKinley's call for volunteers he enlisted in the 2d Massachusetts Regiment and went to the front as first corporal of Company K. While the regiment was at Tampa awaiting transportation to Cuba he was detached and appointed a sergeant in the United States Signal Service. When the land movement toward Santiago was begun he was one of three men who volunteered to go up in the observation balloon and telegraph signals. He discharged this perilous duty during the battles at El Caney and San Juan Hill, and again during the subsequent fighting on the outskirts of Santiago till the balloon fell, pierced by the long-range Mauser rifle bullets of the Spaniards. All three occupants of the car were severely injured in its descent. One received wounds that caused his death soon afterward, and another became hopelessly insane from the shock. Boone was sent to the field hospital for treatment, and then taken to Boston. His injuries made a delicate surgical operation necessary, and from this he had not sufficient strength to rally.

Booth, Henry Matthias, educator, born in New York city, Oct. 3, 1843; died in Auburn, N. Y., March 18, 1899. He was graduated at Williams College in 1864 and at Union Theological Seminary in 1867, and was pastor of the Presbyterian Church in Englewood, N. J., from 1867 till 1891. He resigned because of impaired health, and, after spending a year in European travel, became associated with the Rev. Henry Van Dyke, D. D., of the Brick Presbyterian Church, New York city. In 1893 he was elected president of Auburn Theological Seminary, where his work was marked by much success till his death. Dr. Booth received the degrees of D. D. and LL. D. from Williams College, and was a trustee of Princeton and Union Theological Seminaries. He published *The Heavenly Vision*, and *Other Sermons* (New York, 1885); *The Sunrise, Noonday, and Sunset of the Day of Grace* (1888), and other works.

Born, Peter, educator, born in Lycoming County, Pennsylvania, July 3, 1820; died in Selinsgrove, Pa., May 29, 1899. He was educated in the institutions at Gettysburg, Pa., being graduated at the college in 1848 and the theological seminary in 1850. In the following year he was ordained by the East Pennsylvania Synod. He was pastor of the Lutheran Church at Sunbury, Pa., in 1851-'59; principal of the classical department of Missionary Institute (now Susquehanna University), Selinsgrove, Pa., in 1859-'81; superintendent and first Professor of Theology in the same institution in 1881-'95, when he retired as professor emeritus, continuing, however, to lecture in the theological department. He received the degree of D. D. from Wittenberg College in 1879. He was a frequent contributor to church and other periodicals, and his articles, signed "Rhadamanthus," in the American Lutheran, attracted special attention.

Bosworth, Benjamin Miller, jurist, born in Warren, R. I., Jan. 17, 1848; died there, Feb. 9, 1899. He received a public-school education, studied law, teaching evening school in the meantime, and was admitted to the Rhode Island bar in 1873. In 1874-'76 he was trial justice of War-

ren; in 1882-'85, Assistant Attorney-General; in 1886-'97, justice of the Fifth District Court; and from 1897 till his death an associate justice of the Supreme Court of Rhode Island. Judge Bosworth represented Warren in the General Assembly in 1880-'82 and 1885-'86, was a member of the local school committee more than twenty years and acting superintendent for five years, and was a delegate to the Republican National Convention in 1888.

Boyd, David French, educator, born in Wytheville, Va., in 1835; died in Baton Rouge, La., May 27, 1899. He was graduated at the University of Virginia, began teaching in 1856, and was chosen Professor of Latin in the Louisiana Military Seminary, then under the superintendence of Col. William T. Sherman, in 1860. At the beginning of the civil war Col. Sherman came North and entered the national service, and Prof. Boyd joined the Confederate army as colonel of the 9th Louisiana Regiment, subsequently serving with the engineers under Gen. Kirby Smith. After the war Prof. Boyd was superintendent of the Louisiana Military Seminary ten years, when he resigned to become superintendent of the military school at Cairo, Egypt. He returned home to assume the presidency of Louisiana State University, of which he was practically the founder. In 1883 he was chosen president of Alabama Agricultural and Mechanical College, at Auburn; in 1889, of Kentucky Military Institute, near Franklin; in 1893, of Michigan Military Academy, at Orchard Lake; and in 1897, of Louisiana State University again, where he was also Professor of Philosophy and Civics.

Brand, James, clergyman, born in Three Rivers, Quebec, Canada, Feb. 26, 1834; died in Oberlin, Ohio, April 11, 1899. He was brought up on a farm, learned the carpenter's trade, and entered Phillips Academy, Andover, in 1858, and Yale College in 1861. He enlisted in the 27th Connecticut Volunteers, with which he took part in the battles of Chancellorsville, Fredericksburg, and Gettysburg. He returned to Yale in 1863, was graduated in 1866, spent three years in theological study at Andover, and was ordained pastor of a Congregational church in Danvers, Mass., Oct. 6, 1869. From 1873 till his death he was pastor of the First Congregational Church at Oberlin, and was intimately associated with the work of the college and theological seminary there. He received the degree of D. D. from Iowa College in 1888. Dr. Brand delivered noteworthy addresses at the great International Congregational Conference in London and at the Parliament of Religions in Chicago in 1893, and published numerous writings, of which Sermons from a College Pulpit and The Mission of the Christian Church are the best known.

Brandeis, Frederic, composer, born in Vienna, Austria, in 1835; died in New York city, May 14, 1899. He became a student in the College of Vienna, and received tuition in piano playing from Fischhof and Czerny, and in composition from Ruffnatscha, till the rebellion of 1848 ruined his father. The family emigrated to the United States in 1849, where Frederic attracted the attention of Theodore Thomas by the performance of an original sonata. Mr. Thomas introduced him to the public in his series of chamber-music concerts. In 1860 Frederic became organist in the Church of St. John the Evangelist, and on its destruction by fire went to St. James's Roman Catholic Church. From 1880 till 1886 he was organist in a New York synagogue, and thenceforth till his death was similarly connected with the Roman Catholic Church of St. Peter and St.

Paul. Mr. Brandeis won first honors in prize composition contests, and, among others, composed the ballad for orchestra and chorus, The Ring, and the songs My Love is Like the Red, Red Rose and The Castle by the Sea.

Breyer, Mary Anne, actress, born in Scotland in 1848; died in Nashville, Tenn., Feb. 14, 1899. She came to the United States with her mother, a well-known Scottish actress, in 1857, and made her first appearance at Saratoga, N. Y. She played several years with her mother, brothers, and sisters as a child actress in Western theaters. At about the age of seventeen she was received as a favorite representative of the heroines of the standard drama throughout the cities of the Ohio and Mississippi valleys, and she played many successful engagements as a star. She joined Mr. H. C. Milne as his leading woman in 1884, when that gentleman abandoned his profession as a clergyman in Chicago and became an actor. She finally went to New York as a representative of character parts and old women. Her first engagement in New York was in the part of Old Margery in Bronson Howard's play Shendoah. Her next New York success was as the old maid in The Private Secretary, and then for four seasons she played Mrs. Firman in Doctor Bill. In 1897 she joined the company supporting Otis Skinner, and played the Nurse in Romeo and Juliet and other similar parts. When Margaret Mather produced Cymbeline at Wallack's Theater, New York, in October, 1898, Miss Breyer played the Queen, and afterward the Nurse in Romeo and Juliet on the road until the death of Miss Mather. In January, 1899, she again joined Mr. Skinner, who was playing Rosemary. Her last appearance was in this play, in the part of Mrs. Menefee, at Nashville, Feb. 4, 1899.

Bridgman, Charles De Witt, clergyman, born in Saugerties, N. Y., Jan. 1, 1835; died in New York city, Feb. 21, 1899. He was graduated at Rochester University in 1855, and at its Theological Seminary in 1857, and held pastorates at Morristown, N. J., and Jamaica Plains, Mass., till 1862. In that year he was called to Emmanuel Baptist Church in Albany, N. Y., where he labored with exceptional success for seventeen years. During this period his congregation erected one of the largest church edifices of the denomination in the State. In 1878 he accepted a call from the Madison Avenue Baptist Church, New York city, where he remained thirteen years. On April 29, 1891, he surprised his congregation by resigning the pastorate because of a change of view concerning some denominational doctrines. A month later he entered the Protestant Episcopal Church, in December following he was ordained to its ministry, and in February, 1892, he became rector of Holy Trinity Church in the Harlem district. He was an eloquent preacher and writer, and many of his discourses were published.

Brinton, Daniel Garrison, ethnologist, born in Thornbury, Chester Co., Pa., May 13, 1837; died in Atlantic City, N. J., July 31, 1899. He was descended from William Brinton, of Shropshire, England, who came to Pennsylvania with William Penn in 1684. Of his early life it has been said that "many a day was passed in collecting the broken points, the stone axes, and the fragments of pottery that marked the presence of an older and mysterious race." He was graduated at Yale in 1858, and among his classmates were J. Willard Gibbs, the physicist, and William T. Harris, the educator. He was graduated at Jefferson Medical College in 1860, after which he spent a year abroad, chiefly in Heidel-

berg and Paris. Returning to the United States in 1862, he entered the National army as assistant surgeon, and in February, 1863, was promoted surgeon. He was made surgeon in chief of the 2d division of the 11th Corps in the Army of the Potomac, and participated in the battles of Chancellorsville and Gettysburg. A sunstroke at the last-named battle prevented further service in the field, and he became superintendent of hospitals in Quincy and Springfield, Ill. At the close of the war he was mustered out with the brevet rank of lieutenant colonel. He then settled in Philadelphia, where from 1867 till 1887 he was editor of the *Medical and Surgical Reporter*, at the same time editing the *Quarterly Compendium of Sciences*. In 1884 he was made Professor of Ethnology and Archæology in the Academy of Natural Sciences in Philadelphia, and in 1886 he was called to the chair of Linguistics and Archæology in the University of Pennsylvania, both of which places he held until his death. His interest in archæological studies obtained its first impulse during a winter spent in Florida, where he gathered material for *The Floridian Peninsula: Its Literary History, Indian Tribes, and Antiquities* (Philadelphia, 1859). After the civil war he resumed his interest in antiquarian studies, and, after publishing *The Myths of the New World: A Treatise on the Symbolism and Mythology of the Red Race of America* (1868), began the publication of the *Library of Aboriginal American Literature*, and was the responsible editor of *The Chronicles of the Mayas* (1882); *The Comedy Ballet of Gueguence* (1883); *The Lenape and their Legends* (1885); *The Annals of the Cakchiquels* (1886); *Ancient Nahuatl Poetry* (1887); and *Sacred Chants of the Ancient Mexicans* (1890). These gained for him the medal of the *Société Americaine de France* in 1886. The degree of LL.D. was conferred on him by Jefferson College in 1891, and that of D.Sc. by the University of Pennsylvania in 1893. Dr. Brinton was a commissioner to the Columbian Historical Exposition held in Madrid in 1892, and was a member of the Jury of Awards at the World's Columbian Exposition in Chicago in 1893, where he presided over the International Anthropological Congress. He had been president of the American Folklore Society, of the Numismatic and Antiquarian Society of Philadelphia, and of the American Association for the Advancement of Science, and he was a member of the Anthropological Societies of Berlin, Rome, and Vienna, and of the Royal Ethnographical Societies of Paris and Florence, the Royal Society of Antiquaries, Copenhagen, and the Royal Academy of History, Madrid. He was an associate editor of Science and an editor of the *American Anthropologist*, and, besides the works already mentioned, he was author of *The Religious Sentiment: A Contribution to the Science of Religion* (1876); *American Hero Myths: A Study in the Native Religions of the Western Continent* (1882); *Essays of an Americanist* (1890); *The Pursuit of Happiness* (1892); *Maria Candelaria: An Historical Drama from American Aboriginal Life* (1897); and *Religions of Primitive Peoples* (1897). Through his "rich, natural endowment, coupled with wise and persistent effort, he materially advanced the science of man, and placed himself in the front rank of the anthropologists of the world." His portrait appeared in the *Annual Cyclopædia* for 1894, page 32.

Broughton, Luke D., astrologer, born in Leeds, England, April 20, 1828; died in New York city, Sept. 22, 1899. He came of a family some of whose members had practiced astrology as

early as 1700. He began studying astrology when eighteen, and was an ardent disciple of it through life. In 1854 he came to the United States, and, after serving his time as a weaver's apprentice and working a few years in a chemical laboratory, was graduated at a homœopathic medical college in Philadelphia. He removed to New York in 1863, and engaged in medical practice. Dr. Broughton lectured extensively on astrology, was for some years editor of *The Monthly Planetary Reader*, and at the time of his death was president of the New York Astrological Society.

Brown, Felix, inventor, born in Belgium in May, 1826; died in Elizabeth, N. J., April 6, 1899. He came to the United States about 1849, and learned the machinist's trade in New York city in company with a brother. The employer thought so highly of the brothers that in time he established them in business, and they assembled a large plant, known as the Progress Iron Works, for the manufacture of shafting, pulleys, and power machinery. About ten years ago the plant was removed to Elizabeth. Mr. Brown was a man of much inventive skill, and had received numerous patents for improved machinery. Among his noteworthy inventions were the fog horn used in the lighthouse service of the United States and other countries and the machine long used for cutting block sugar. Mr. Brown was an original member of the Arion Singing Society of New York.

Browne, Irving, lawyer, born in Marshall, N. Y., Sept. 14, 1835; died in Buffalo, N. Y., Feb. 7, 1899. He was a son of the Rev. Lewis C. Browne, and, after studying law in New York city, formed a partnership with Martin I. and Rufus Townsend in Troy, himself taking charge of the office work. In 1879 he removed to Albany, where for many years he was editor of the *Albany Law Journal*. Since 1893 he had lived in Buffalo. Mr. Browne for two years previous to his death was librarian of the law library of the 8th Judicial District. He also had charge of a department in the Green Bag, and was a lecturer before the Buffalo Law School. He edited and annotated hundreds of volumes of reports, among them being the New York State Reports, 35 volumes of the American Reports, and 2 volumes of National Bank Cases. Other work included standard text-books on *The Law of Domestic Relations*, *Criminal Law*, *Parole Evidence*, *Sales and Bailments*, *Short Studies in Evidence*, *Judicial Interpretation of Common Words and Phrases*, and, in lighter vein, *Short Studies of Great Lawyers*, *Law and Lawyers in Literature*, *Humorous Phases of the Law*, a volume of book lore on *In the Track of the Bookworm*, and a volume of poems, entitled *The House of the Heart*. At the time of his death he was writing the American notes to the series of English Ruling Cases, now in its sixteenth volume. As a collector of books Mr. Browne sought all desirable standard works in history, biography, poetry, and romance, gathered an excellent collection of the old dramatists, of choice editions of Greek, Latin and French authors, and of works on the fine arts, and prepared personally 150 volumes containing extra illustrations, the last constituting the gem of his treasures.

Brumby, Thomas M., naval officer, born in Georgia in 1855; died in Washington, D. C., Dec. 17, 1899. He entered the Naval Academy on Sept. 25, 1873, and was graduated on June 18, 1879. He was assigned to the Tennessee. On Nov. 26, 1880, he was promoted to ensign, and the next year he went on the receiving ship Franklin. He then served successively on the Jamestown, Ged-

ney, and Vandalia, the receiving ship Vermont, and the schoolship St. Mary. He was promoted to lieutenant (junior grade) on April 21, 1887, and to lieutenant on Aug. 24, 1892. He was on the New York from 1893 to 1896. He was assigned to the Naval Observatory and War College in September, 1897, and in January, 1898, went on the Olympia, and participated in the battle of Manila Bay on May 1 of that year. In his capacity as flag lieutenant to the admiral (Dewey) Lieut. Brumby was thrown with his chief practically all the time, and acted as his personal representative in many matters of detail delegated to him by the commanding officer.

Bryant, Gridley James Fox, architect, born in Boston, Mass., Aug. 29, 1816; died there, June 8, 1899. He was the son of Gridley Bryant, who built the railroad to carry stone from the Quincy quarries to the site of Bunker Hill Monument, which is said to have been the first railroad constructed in America, and who invented the two-wheel and four-wheel railroad trucks and the first turntable put together in this country. Young Gridley was educated in the public schools and at home, studied architecture, and established himself in Boston. He designed and erected the first fire-proof building in Boston; rebuilt the Charlestown State Prison; remodeled the State Capitol at Concord, N. H.; erected the Old Colony Station in Boston; and in 1853-'54 added a fire-proof extension to the Massachusetts Statehouse. He also designed and erected county court buildings and jails; the customhouse at Eastport, Me.; the Maine State Reformed School, at Cape Elizabeth; the Peabody Institute, at Danvers, Mass.; the city halls at Lynn and Gloucester, Mass.; the City Hospital and St. Vincent's Orphan Asylum, both in Boston; and many churches and schoolhouses in that city. On the opening of Franklin Street, Boston, he built it up with granite blocks for business, and subsequently he did the same with Summer Street. The great fire in 1872 destroyed 152 of the buildings he had designed and erected, and afterward he was commissioned to rebuild 110 of them. For several years he was supervising architect of the Treasury Department.

Buberl, Caspar, sculptor, born in Bohemia in 1834; died in New York city, Aug. 22, 1899. He received his professional education in Vienna, came to the United States in 1854, and executed a number of noteworthy public works. Among his best-known productions are the soldiers' and sailors' monuments in Troy, N. Y., Manchester, N. H., and Hartford, Conn.; a bronze statue at Alexandria, Va., symbolical of "the lost cause"; the bronzes on the New York State Monument at Gettysburg; five bas-reliefs on the Garfield Monument at Cleveland; the figure of Columbia in front of the new Congressional Library; and the allegorical groups of the Patent Office, representing Electricity, Fire, Water, Invention, Agriculture, and Mining. In New York he executed the Muses at the Metropolitan Opera House, the Buckingham statue on the hotel of that name, and the Newsboy on the building of the American News Company. He also made a statue of Ponce de Leon for Venezuela. At the time of his sudden death he had just completed the medallion bas-relief of Rear-Admiral Dahlgren for the Dewey triumphal arch on Madison Square, and had begun work on a second medallion.

Buckalew, Charles E., lawyer, born in Bloomsburg, Columbia Co., Pa., Dec. 28, 1821; died there, May 19, 1899. He studied law, and was admitted to the bar in 1843. In 1845-'47 he was prosecuting attorney for Columbia County; in 1850-'56,

a State Senator; in 1854, a United States commissioner to ratify the treaty with Paraguay; and in 1857 chairman of the Democratic State Committee. During the last year he was re-elected a State Senator and appointed a commissioner to revise the penal code of Pennsylvania. He resigned these two offices in 1858 on being appointed minister to Ecuador. In 1861 he returned to the United States, and two years later he was elected United States Senator, to succeed David Wilmot, by a majority of one vote. During this service he was a member of the Committees on the Post Office and Indian Affairs, and opposed the reconstruction measures as illegal. On the expiration of his term he was again elected to the State Senate, where he began the movement for a State constitutional convention, of which he was afterward a member. In 1872 he was the unsuccessful Democratic candidate for Governor, in 1876 headed the Democratic State electoral ticket, and in 1886 and 1888 was elected a Representative in Congress. While in the House of Representatives he served on the Committees on the Judiciary and Education. He published Proportional Representation (1872) and The Constitution of Pennsylvania (1883).

Bullock, Jonathan Russell, jurist, born in Bristol, R. I., Sept. 6, 1815; died there, May 7, 1899. He was graduated at Brown University in 1834, studied law, and was admitted to the bar at Newport in 1836. Soon afterward he removed to Alton, Ill., where he practiced till 1843, when he returned to Bristol. He then served three terms in the General Assembly of Rhode Island, and in 1849 was appointed collector of the port of Bristol and elected a State Senator. In 1860 he was elected Lieutenant Governor, and in the following year the Governor appointed him a special commissioner to adjust the civil war claims of the State against the Federal Government. While engaged in this duty, in 1862, he was chosen an associate justice of the Supreme Court of Rhode Island. He remained on the bench of that court till March, 1864, when he was appointed judge of the United States District Court for Rhode Island. Judge Bullock was obliged by failing health to resign in 1869.

Bunnell, Jesse H., telegrapher, born in Masilon, Ohio, in 1843; died in Brooklyn, N. Y., Feb. 8, 1899. He began learning telegraphy when eleven years old, and when sixteen was an operator in Columbus. In 1861, while employed in Pittsburg, he went to Washington on the call for volunteers for the military telegraph service, and was first stationed at Annapolis, Md. After the battle of Big Bethel he was transferred to Hampton, Va., and on the organization of the Peninsular campaign he became Gen. McClellan's personal telegrapher. When Gen. McClellan transferred his headquarters to the steamer Commodore, at Yorktown, Mr. Bunnell operated the wire between the vessel and Washington. During the battle of Antietam he received and sent messages under continuous fire. In 1863 he was transferred to the Army of the Cumberland and assigned to Gen. Rosecrans's headquarters. In the battle of Chickamauga, after the right wing of the National army had been driven back, Mr. Bunnell found himself the only man left in that part of the field. When Gen. Rosecrans reached Chattanooga Mr. Bunnell reopened communication with him, informing him how the other division commanders had fared. From Chattanooga Mr. Bunnell went to Atlanta in 1864, intending to accompany Gen. Sherman on his march to the sea, but exposure and hardship had impaired his health to such an extent that he was obliged to leave

the service. After the war he was engaged in the manufacture of electrical supplies in New York city. Mr. Bunnell was widely known as the "lightning sender," because of his great feat in 1860, when he sent President Buchanan's message from Pittsburg to Cincinnati, making an average of 38 words a minute for two hours.

Butler, William, clergyman, born in Dublin, Ireland, Jan. 30, 1818; died in Old Orchard, Me., Aug. 18, 1899. He was educated for the Wesleyan ministry at Didsbury, completing his course in 1844, and joined the Irish Conference, in which he preached six years. In 1850 he came to the United States, and he labored in the New England Conference till 1856, when he went to India as a missionary. After ten years of foreign service, during which time he organized a Methodist mission in the Ganges valley, he returned home to assume the post of secretary of the American and Foreign Christian Union. During the Sepoy rebellion in India Dr. Butler escaped to the hills, and was in hiding several months. There are now 100,000 Methodists in India as a result of his labors. In 1872-'79 he was engaged in organizing Methodist missions in Mexico, and in 1880-'82 held a pastorate in Melrose, Mass. Among his writings are *Missionary Compendium*, *The Land of the Vedas*, and *Mexico from the Conquest to 1880*.

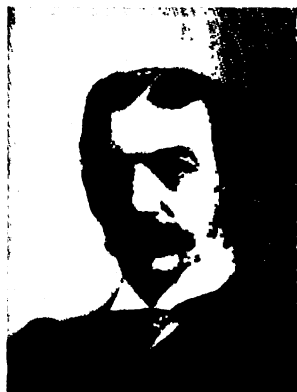
Butterfield, Consul Willshire, historian, born in Mexico, N. Y., July 28, 1824; died in South Omaha, Neb., Sept. 25, 1899. He was of Leyden Pilgrim ancestry and a brother of Emilie Butterfield, now the wife of Charles Loyson, better known as Père Hyacinthe. When ten years old he accompanied his parents to Ohio, where he was chiefly self-educated, and engaged in teaching. In 1848 he was appointed superintendent of public schools in Seneca County, Ohio; in 1850 he went to California, where he was defeated as an independent candidate for State Superintendent of Public Instruction; and in 1851 he began practicing law in Bucyrus, Ohio. He abandoned the legal profession in 1875 and removed to Madison, Wis., remaining there till 1888, when he settled in South Omaha. Mr. Butterfield produced many historical works of permanent value. Besides contributing to a large number of city, town, and county histories and biographical publications, he edited the *Washington-Crawford Letters* (Cincinnati, 1877); the *Washington-Irvine Correspondence* (Madison, 1882); *A Short Biography of John Leith* (Cincinnati, 1883); and *Journal of Capt. Jonathan Heart* (Albany, 1885); and was author of a *History of Seneca County, Ohio* (Sandusky, 1848); *An Historical Account of the Expedition against Sandusky in 1782* (Cincinnati, 1873); *The History and Biographical Annals of the University of Wisconsin* (Madison, 1879); *History of the Discovery of the Northwest by John Nicolet* (Cincinnati, 1881); *History of Wisconsin*; *History of the Girty's*; and *History of Brule's Discoveries and Explorations, 1610-1626*, his last work, published by the Western Reserve Historical Society of Cleveland.

Carpenter, Charles Carroll, naval officer, born in Greenfield, Mass., Feb. 27, 1834; died in Boston, Mass., April 1, 1899. He was appointed a midshipman in the navy, Oct. 1, 1850; was promoted passed midshipman, June 20, 1856; master, Jan. 22, 1858; lieutenant, the day following; lieutenant commander, July 16, 1862; commander, Feb. 10, 1869; captain, March 25, 1880; commodore, May 15, 1893; and rear admiral, Nov. 11, 1894; and was retired, Feb. 27, 1896. He was on sea duty seventeen years and seven months, and on other duty eighteen years and eight months.

His first service was on the sloop *Portsmouth*, of the Pacific squadron, in 1851-'55, and after leaving the Naval Academy he was on duty with the home squadron on the frigates *Merrimac*, *Roanoke*, *Colorado*, and *Dolphin* two years. While he was on the *Dolphin* that vessel, assigned to tracking American slavers, captured the *Echo* with 300 slaves aboard. In 1858 he was attached to the steamer *Mohawk*, which captured the slaver *Wildfire*, off the coast of Cuba, with a cargo of 500 slaves. After the outbreak of the civil war the *Mohawk* was assigned to the Texas and East Gulf blockading squadron, and in 1862 Carpenter was transferred to the steamer *Flag*, of the South Atlantic squadron, and he was with that ship when the steamers *Anglia* and *Emily* were captured. In 1863 he was assigned to the ironclad *Catskill*, and was on board of her during the attacks on the defenses of Charleston in April, July, and August of that year. The same year he was ordered to duty at the Naval Academy, where he remained two years, and then spent a year on the steam sloop *Hartford*, flag ship of the Asiatic squadron. His first sea command was the steamer *Wyoming*, of the same squadron. In 1868-'70 and for a short time in 1871 he was at the *Portsmouth Navy Yard*; in 1871-'72 he commanded the *Nantasket*, of the North Atlantic squadron; and in 1872-'75 the *Huron*. On receiving his commission of captain he became equipment officer at the Boston Navy Yard. In 1883, as commander of the *Hartford*, he carried the American and English scientists from Callao to Caroline atoll to observe the total eclipse of the sun. He was commandant of the *Portsmouth Navy Yard* in 1890-'94, and commanded the Asiatic squadron during the war between China and Japan. Although he was retired from active service by age limit, at the declaration of war against Spain Rear-Admiral Carpenter promptly solicited active duty, and he received command of his former post, the *Portsmouth Navy Yard*, where he remained till the conclusion of peace.

Castner, Hamilton Young, chemist, born in Brooklyn, N. Y., Sept. 11, 1859; died at Saranac Lake, N. Y., Oct. 11, 1899. He was educated at the Brooklyn Polytechnic Institute, and entered Columbia College School of Mines, where he completed the chemical course with the class of 1879. Deciding upon analytical chemistry as a profession, he opened a laboratory in New York city for commercial work, and was very successful.

He devoted his leisure to the study of means of improving chemical processes, and soon patented the first continuous process for the manufacture of carbon, or bone black, which proved a scientific success, but was not fortunate financially. His next invention was a chemical process for producing sodium from molten caustic soda by introducing into the caustic soda carbon in the form of a carbide—that is, the carbon was mixed with a sufficient quantity of iron in a fine state



of division to cause the combined mass to sink in the molten caustic, and thus come into intimate contact therewith, after which the sodium was distilled, the iron filings being recovered from the distillation vessel. This process was the key with which he opened a new and cheap method of producing aluminum. Castner placed his invention in England, where the Aluminum Company was formed, with himself as managing director of the works erected under his supervision in Oldbury, and there he further improved his process by devising methods for purifying the double chloride of aluminum and sodium. By the Castner process the market price of aluminum—then more than \$10 a pound—was reduced to \$5, and later to less than \$1 a pound. Sir Frederick A. Abel, in his address before the British Association in 1890 (see *Annual Cyclopædia* for 1890, page 31), said: "The success which has culminated in the admirable Castner process constitutes one of the most interesting of recent illustrations of the progress made in technical chemistry upon the happy blending of chemical with mechanical science through the labors of the chemical engineer." The introduction of the manufacture of aluminum by aid of the electric current made the chemical process obsolete. Mr. Castner then turned his attention to a method for cheapening the cost of sodium and to finding a market for that product. The latter he accomplished by introducing it in the manufacture of alkaline cyanide as distinguished from potassium cyanide, so largely used in gold-extraction processes, and also by using it in some of the reactions in the manufacture of certain coal-tar products. He invented a continuous process for production of sodium peroxide by causing a current of air to pass over heated sodium, the arrangement being such that the fresh sodium was first submitted to the action of air almost deprived of its oxygen, and as it was fed forward met air containing more and more oxygen, until just before withdrawal it met practically fresh air and was thoroughly oxidized. His sodium peroxide has largely taken the place of barium peroxide used in the production of hydrogen peroxide, the great bleaching agent. For the cheapening of the cost of the production of sodium he also invented the first practical electrolytic method of treating caustic soda, and his process is now used in Oldbury, England, in Niagara Falls, N. Y., and in Rheinfelden, Germany. Fully nine tenths of all the sodium used in the world is produced by his method. He invented a process for the manufacture of pure caustic soda, in which mercury was used at the same time, both as a mechanical seal and an electrical connection between two compartments of a decomposing cell containing sodium chloride in solution and water or weak caustic soda respectively, the mercury taking up the sodium in the chloride compartment and being moved to the water compartment, where the amalgam was decomposing in the presence of water, forming caustic soda, the mercury being returned to the sodium-chloride compartment to enable it to receive a fresh charge of sodium. The chlorine obtained in the process was used in the production of bleaching powder. This invention was a commercial success, and a plant was established by the Castner-Kellner Alkali Company at Weston Point, Runcorn, England, for the manufacture of caustic soda by this method. Castner was also the inventor of other processes of minor importance, which were used incidentally in his large undertakings. He was a member of the Society of Chemical Industry in London, and in a sketch of his life in its proceed-

ings it is written that "his name is likely to live among those men of science who have devoted their energy to practical manufacturing processes."

Chadwick, Edmund, educator and reformer, born in Middleton, N. H., Jan. 12, 1812; died in Eddytown, N. Y., April 7, 1899. His ancestors came to Massachusetts from England in the great immigration of 1630, under Gov. Endicott, and settled about Plymouth Bay. He was a lineal descendant in the fifth generation from John Chadwick, who died in 1707 and is buried in Bradford, Mass. Edmund Chadwick was the third son of the Hon. John Chadwick and Elizabeth Stearns, his wife. He fitted for college at Phillips Exeter Academy, spent one year at Dartmouth in the study of medicine, and then entered Colby College, where he remained two years, finishing his course at Bowdoin College, where he graduated in 1840. He studied two years at Lane Theological Seminary, and for the same period at Bangor Theological Seminary. He was ordained to the ministry and preached one year in Franklin, N. H., when, his health failing, he went South, teaching classics and mathematics one year in the Classical and Mathematical Institute at Nashville, Tenn. In 1847 he became president of Starkey Seminary, at Eddytown, N. Y. He married in 1847 Cassandra Hobart, who soon died. In 1849 he married Adaline Ward, by whom he had seven children, of whom six survive him. Mrs. Chadwick was associated for fifteen years with her husband in teaching, and contributed in high degree to his success. She died in 1873. Mr. Chadwick united to broad culture a distinguished personality and the ability to inspire in other minds his own high enthusiasms. He had in large measure a genius for teaching, and under his administration Starkey Seminary, hitherto little known, attained a wide reputation for individual methods and excellence of scholarship, drawing pupils from all parts of the United States and Canada. In 1861 Mr. Chadwick withdrew from the seminary, and after three years as principal of Dundee Academy retired permanently from teaching, devoting his energies to horticulture and moral reforms. He was an early and ardent abolitionist and a zealous temperance worker, and was the first to advocate the establishment of Niagara Falls as a national park. Later subjects to engage his attention were forest culture and jury reform.

Champney, Edwin Graves, artist, born in Boston, Mass., Aug. 24, 1842; died in Arlington Heights, Mass., Sept. 25, 1899. He studied art with his uncle, Benjamin Champney, and also spent several years in Antwerp, studying there in company with Millet, Van Beers, and others. He painted some fine cattle pieces, landscapes, and portraits. Among the latter was one of his father, which hangs in the Woburn Library. He was one of the early teachers at the Boston Art Museum.

Chickering, George Harvey, manufacturer, born in Boston, Mass., in 1829; died in Milton, Mass., Nov. 17, 1899. He was the youngest son of Jonas Chickering, founder of the pianoforte business that still bears the family name. He was educated in the public schools of Boston, and went from school life directly to work at the bench in his father's manufactory. In 1853, upon his father's death, he succeeded, with his two elder brothers, to the business, and after the death of his brothers he became the sole head of the company, though for several years previous to his death he was not actively engaged in it. He was active among the musical organizations

of Boston, having been at one time president of the Chickering Club and later a member of the Apollo Club.

Cilley, Bradbury Longfellow, educator, born in Nottingham, N. H., Sept. 6, 1838; died in Exeter, N. H., March 31, 1899. He was graduated at Harvard College in 1858. After teaching in the Albany High School a year, he went to Phillips Exeter Academy as Professor of Ancient Languages in February, 1859. The institution then had fewer than 100 students, and, as Prof. Cilley expected to hold the chair for a short time only, he began his new work and the study of law simultaneously. With his coming, however, a new life was infused in the famous academy, and his term was prolonged to the end of his life. He taught both Greek and Latin till 1871, and afterward confined himself to the former.

Clapp, Alexander Huntington, clergyman, born in Worthington, Mass., Sept. 1, 1818; died in New York city, April 27, 1899. He was graduated at Yale College in 1842 and at Andover Theological Seminary in 1845. In 1846 he occupied the chair of Rhetoric and English Literature in Middlebury (Vt.) College temporarily, and, declining the permanent professorship, was ordained pastor of the Central Congregational Church at Brattleboro, Vt. An affection of the eyes caused him to suspend preaching in 1853, but in 1855 he took the pastorate of the Beneficent Congregational Church in Providence, R. I. During a leave of absence from his church in 1862 he served as chaplain of the 10th Rhode Island Volunteers. From 1865 till 1878 he was secretary of the Home Missionary Society in New York city, and on resigning that office was elected treasurer of the society, which charge he held till his death. He was for many years editor of *The Home Missionary*, and from 1875 till 1895 was the New York editor of *The Congregationalist* of Boston. He received the degree of D. D. from Iowa College in 1868. While a student at Andover Seminary he edited a selection from the writings of Bishop Joseph Hall, and while at Brattleboro, Vt., he edited *Lives of the Presidents* and others works. Several of his sermons and addresses have been published, and he contributed frequently to magazines and to the religious press.

Clapp, Almon M., journalist, born in Killingly, Conn., Sept. 14, 1811; died in Washington, D. C., April 9, 1899. His parents removed to Livingston County, New York, when he was seven years old, and when he was fourteen he was apprenticed to the printer's trade. In 1835 he founded the *Aurora Standard*, in 1838 became editor and part proprietor of the *Buffalo Commercial Advertiser*, and in 1846 established the *Buffalo Express*. Mr. Clapp was a delegate to the convention at Pittsburgh in 1856, where the Republican party was formally organized, and after the election of President Lincoln he was appointed postmaster of Buffalo. In 1866 President Johnson removed him from this office. Three years later he was elected congressional printer, and he held the office till 1877. On removing to Washington he sold the *Buffalo Express*, and on the expiration of his term he purchased the *National Republican* and edited it till 1880, when he retired from active life. He was president of the Anti-Civil Service League.

Clark, Meriwether Lewis, sportsman, born in Louisville, Ky., in 1846; died in Memphis, Tenn., April 22, 1899. His life was principally spent in his native city, where he engaged in the banking business and accumulated a modest fortune. For twenty-five years his life was almost wholly de-

voted to promoting the American turf, and his character is best attested by the fact that during this period no breath of scandal ever assailed his name. He was the author of a majority of the turf rules or laws of the present day, the founder of the first American Turf Congress, the maker of the first uniform scale of weights, and the pioneer in a system of stakes and races that has been followed by every race track in the country. Mr. Clark was also the organizer of the Louisville Jockey Club.

Clarke, John Sleeper, actor, born in Baltimore, Md., Sept. 3, 1833; died near London, England, Sept. 24, 1899. In childhood he was closely associated with the family of the elder Booth, whose daughter Asia he subsequently married. With the Booth boys he formed an amateur dramatic society and gave a performance before the friends of the family at Belair, Md., in the county courthouse, Aug. 2, 1850, at which he and Edwin Booth made their *début* together in Shakespearean readings, the latter selecting Richard III, Macbeth, Hamlet, and Richelieu, and Clarke Shylock and Otway's Jaffier, and the boys appeared together in the quarrel scene from Julius Cæsar, Booth as Brutus and Clarke as Cassius. Mr. Clarke's father died in 1836, and, as he had designed the boy for the bar, young Clarke, after a fairly good education, entered a law office. But the drama was more attractive, and in the autumn of 1851 he made his first appearance at the Howard Athenæum, Boston, playing the part of Frank Hardy in *Paul Pry*. He remained until the end of the season in that theater, doing the usual work of a beginner in a stock company, and at the opening of the season of 1852-'53 became a member of the company of the Chestnut Street Theater, Philadelphia, where he entered upon a three years' prosperous sojourn on Aug. 28 in the part of Soto in Colley Cibber's comedy *She Would and She Would Not*. John Drew, the elder, then the leading comedian of that theater, relinquished his place in January, 1853, and Mr. Clarke was intrusted with its responsibilities. He was eminently successful, and in the autumn of 1854 went to Baltimore as the comedian of the Front Street Theater, where for a season he was enthusiastically applauded in all the parts of standard comedy. He became first comedian of the Arch Street Theater, Philadelphia, where he remained in very popular estimation for three years. In 1858 he entered into partnership with William Wheatleigh in the management of that theater. He began during this year to make short tours as a star through the South, meeting everywhere with large and delighted audiences. On April 29, 1859, he married Asia Booth at Baltimore. In 1861 he retired from the management of the Arch Street Theater and went to New York, where he appeared for the first time on May 15 of that year at the Metropolitan Theater. His first part was Diggory in *The Specter Bridgroom*. Mr. Ireland, in his *History of the New York Stage*, says of this *début*: "He was not merely a success; he was a revelation"; and George William Curtis wrote of him in *Harper's Weekly*: "I consider Clarke by far the finest artist who has been seen on our boards since Rachel." In May, 1862, Mr. Clarke went to England and made an engagement with Dion Bouicault to play Mr. Toodles, one of his most popular characters, in London, but for business reasons the arrangement was not carried out, and Mr. Clarke returned to the United States in time to resume his starring engagements in the autumn. The name of the Metropolitan Theater in New York was changed

to that of Winter Garden, and in August, 1864, Mr. Clarke, in partnership with Edwin Booth and William Stuart, assumed the management. Mr. Clarke played his repertory of comedy there from Aug. 18 to Christmas, and Mr. Booth followed him. At this time his popular characters were: Dromio of Syracuse in *The Comedy of Errors*, Smashington in *Somebody's Coat*, Paul Patent in *Love and Livery*, Paul Pry in the comedy of the same name, Bob Tyke in *The School for Reform*, Jeremiah Beetle in *The Babes in the Wood*, Bob Brierly in *The Ticket-of-leave Man*, Waddilove in *To Parents and Guardians*, Peter Plumley in *Single Life*, Mr. Dove in *Married Life*, Major Wellington de Boots in *Everybody's Friend*, Lord Sparkle in *A Roland for an Oliver*, Jack Shepherd, Toby Twinkle, Simon Parefoy, and Timothy Brown. In 1863 Mr. Clarke and Edwin Booth bought the Walnut Street Theater, Philadelphia, which they managed several years, and in 1866 they took the lease of the Boston Theater. In both of these they maintained the usual stock company, as well as that of the Winter Garden, New York, playing starring engagements in the three cities successively. In the autumn of 1867 Mr. Clarke visited England on a pleasure trip with his wife and family. While in London he found the opportunity to play *Major De Boots*, and made his appearance before a London audience, changing the name of the play to *The Widow Hunt*, at the St. James's Theater, in October. His success was instantaneous and permanent, and, acting partly on the advice of Charles Dickens, who became his enthusiastic friend, he settled in the English metropolis. In February, 1868, he played *Salem Scudder* in the Octoroon at the Princess, and he made thereafter a very prosperous tour to Liverpool, Birmingham, Dublin, Belfast, and Edinburgh. On returning to London he took an engagement at the Strand Theater, with which house he was identified many years. July 26, 1869, he began there with a signal triumph as Babington Jones in John Brougham's comedy *Among the Breakers*, and achieved great success as Dr. Pangloss in *The Heir at Law* and Dr. Ollapod in *The Poor Gentleman*. His performance of Mr. Toodles ran two hundred nights during this season. On his return to the United States he met with a series of ovations, opening, April 17, 1870, in New York, where he played forty-two nights, then visiting Chicago, St. Louis, Louisville, Cincinnati, Pittsburg, Baltimore, and Philadelphia. In the last named he played fifty nights. July 29, 1871, began a run of Dr. Pangloss at the Strand in London, one hundred and fifty nights. In December he was in Philadelphia again, playing alternately with Edward Sothern in two houses. Clarke began with Dr. Pangloss at the Arch, while Sothern played *Dundreary* at the Walnut. Then Clarke went to the Walnut and finished the performance with Mr. Toodles, and Sothern went to the Arch, where he gave *Dundreary Married and Settled*. Though prices were doubled in both houses, they were filled every night. March 9, 1872, Mr. Clarke was at the Strand again, and played Dr. Ollapod sixty nights, followed by Paul Pry for the summer weeks. In November, 1872, he assumed the management of the Charing Cross Theater, London, where he opened with a charming performance of Bob Acres in *The Rivals*. This ran one hundred and twenty-seven nights, and a long time in the provinces. April 4, 1874, he made another London success as Phineas Pettipogge in Henry J. Byron's *Thumbscrew* at the Holborn Theater. In 1878 Mr. Clarke became lessee of the Haymarket Theater, London,

but he did not play there till April, 1879, when he played for a short time Bob Acres, Toodles, and Dr. Pangloss. Sept. 20, 1880, he began another short engagement at the Haymarket, and in the beginning of 1887 went again to the United States. When he returned to London it was to play at the Strand, beginning Nov. 18, 1882. On Jan. 18, 1883, a revival of *The Comedy of Errors* was given for a run of considerable length. Thereafter his work was mostly in the provinces. His last appearance in America was in 1879, and in later years he lived in leisure near London.

Clarke, Joseph Morison, clergyman, born in Bethany, Conn., Oct. 6, 1827; died in Syracuse, N. Y., Nov. 30, 1899. He was graduated at Hobart College in 1847, and, deciding to enter the Episcopal ministry, was ordained deacon in 1852 and priest in 1853. From 1852 to 1858 he was rector of St. Peter's Church, Niagara Falls, N. Y., and from 1858 until his death rector of St. James's Church at Syracuse. From 1886 to 1891 he was Professor of Exegesis at Nashotah Seminary, Wisconsin. He published *Was John Wesley a Methodist?* and *Christian Union and the Protestant Episcopal Church* (New York, 1886).

Clarke, Robert, publisher, born in Annan, Scotland, in 1829; died in Cincinnati, Ohio, Aug. 26, 1899. When eleven years old he went with his family to Cincinnati. He was educated at Woodward College, and began his business life as clerk in a second-hand bookstore. In 1858, on the retirement of the publishing firm of H. W. Derby & Co., Mr. Clarke organized the firm of Robert Clarke & Co., which in 1894 became the Robert Clarke Company. Early in his career Mr. Clarke took a special interest in historical works, and he also began a systematic collecting, particularly of Americana, for his private library. This collection had reached nearly 7,000 volumes a few years ago, when William A. Proctor purchased it. In 1898 the purchaser presented it to Cincinnati University. Among the notable historical works that the firm published are Col. George Rogers Clarke's Campaign in the Illinois, 1778-79, James McBride's *Pioneer Biographies*, and Capt. James Smith's *Captivity with the Indians*. Mr. Clarke was the author of *The Prehistoric Remains which were Found on the Site of the City of Cincinnati*, with a *Vindication of the Cincinnati Tablet*, which he printed in 1876.

Clement, Nathaniel H., jurist, born in Tilton, N. H., March 23, 1844; died in Brooklyn, N. Y., March 3, 1899. He was graduated at Dartmouth College in 1863, and was a member of the Dartmouth cavalry company that formed a part of the command under Col. Davis that escaped from Harper's Ferry through the enemy's line during the night preceding the surrender of that post to the Confederates in September, 1862. After leaving college he spent three years as a clerk in the War Department, and then, removing to Brooklyn, became a law student in the office of Crooke, Bergen & Pratt. When Mr. Pratt was elected a justice of the Supreme Court Mr. Clement succeeded him as junior member of the firm, and held that place till the dissolution of the firm in 1873. In 1882 he was elected judge of the old city court, and in 1887 became chief judge. When the new constitution consolidated the city court and the Supreme Court Judge Clement became a justice of the Supreme Court for the 2d District for the term expiring Dec. 31, 1896. In the autumn of that year both Judge Clement and Judge Charles M. Brown were renominated for a term of fourteen years each. Both candidates, however, refused the nomination because they could not subscribe to the Chi-

cago platform, and they retired to private life. Judge Clement was noted for his remarkable memory of precedents and for his affability toward young members of the bar.

Cledenin, Paul, army surgeon, born in Illinois; died in Santiago, Cuba, July 4, 1899. He entered the army from civil life as assistant surgeon, Nov. 5, 1886, and was promoted to captain, Nov. 5, 1891. On June 4, 1898, he was commissioned major and brigade surgeon in the volunteer army, and in the Santiago campaign he was one of the division surgeons in the 7th Army Corps. After the disbandment of that corps he was placed in charge of the general hospital established at Santiago, and he there performed invaluable service, especially in the brief epidemic of yellow fever, till he was stricken with that malady himself.

Clinton, Henry Laurens, lawyer, born in Woodbridge, Conn., Feb. 21, 1820; died in New York city, June 7, 1899. On attaining his majority he removed to New York city, studied law, and was admitted to the bar in 1846. For several years he applied himself to criminal practice with success. He was counsel for Mrs. Emma A. Cunningham, charged with the murder of Dr. Harvey Burdell, a dentist of New York, on Jan. 30, 1857. The trial was exceedingly sensational, and Mr. Clinton secured the acquittal of his client and her alleged accomplices. His next celebrated case was in defense of Henri Carnal, a poor and friendless man, also charged with murder. Mr. Clinton, against his wishes, was assigned by the court to defend the accused, who, despite his counsel's efforts, was convicted. Mr. Clinton then appealed to Gov. Hunt for a reprieve, and fought the case through the Court of Oyer and Terminer, as well as the General Term, making new arguments before the Governor for reprieves as adverse decisions were encountered. Even the Legislature took cognizance of the case and enacted some special legislation to affect it. When the late Oakey Hall became district attorney Mr. Clinton advised his client as a last resort to plead guilty of manslaughter, and on this he escaped with a short term of imprisonment. In 1867 he abandoned criminal for civil practice. He was one of the counsel for the prosecution of William M. Tweed, and with John Kelly and Augustus Schell he aided in reorganizing Tammany Hall after Tweed's conviction. Afterward he was connected with several noteworthy causes, and for his services in one received, as he said, "between \$300,000 and \$500,000, the largest single fee that I ever knew to be paid to a lawyer." About ten years before his death he retired from practice and began speculating in real estate. Mr. Clinton was the author of two volumes of *Extraordinary Cases*.

Coffin, George W., naval officer, born in Massachusetts; died in Yokohama, Japan, in June, 1899. He was appointed an acting midshipman in the navy, Oct. 24, 1860; was promoted midshipman, July 16, 1862; ensign, Oct. 1, 1863; master, May 10, 1866; lieutenant, July 25 following; lieutenant commander, March 12, 1868; commander, Nov. 30, 1878; and captain, Sept. 27, 1893; and was retired because of a disability incurred in the service, Sept. 15, 1897. On becoming an ensign he was assigned to the steam sloop *Ticonderoga*, of the North Atlantic blockading squadron. He took part in both attacks on Fort Fisher, and was wounded in a leg during the land assault. After the war he served with the Brazilian and European squadrons; was at the Naval Academy in 1868-'69; chief of staff of the North Atlantic fleet, 1870-'71; commanded

coast survey steamer *Hassler*, 1876-'78, and steamer *Alert* in the Greely Relief Expedition, 1884; lighthouse inspector, 1888-'89; and secretary of the Lighthouse Board, 1889-'90. In 1898 he received a year's leave of absence, which he was spending with his daughter, the wife of Surgeon Henderson, at the Yokohama Naval Hospital, when he died.

Coghlan, Charles Francis, actor, born in Paris, France, in 1841; died in Galveston, Texas, Nov. 27, 1899. He was of an old Irish family. His father was a journalist and a compiler of guidebooks, whose works were very popular with English travelers of the early days of the century. Young Coghlan was educated in Paris and in London, and was intended for the bar. His first appearance on the stage was made at the Haymarket, London, then under the management of Mr. Buckstone, in the small part of Monsieur Mafoi in *The Pilgrim of Love*, April 9, 1860. He played various small parts in the Haymarket company until the end of November, 1861, and in the summer of 1862 was engaged for a company to occupy the new Theater Royal, Bath. Mr. Coghlan played *Demetrius* in *Midsummer Night's Dream*, taking the rank of juvenile leading man. After three seasons of great popularity he played for a short time at the Olympic Theater, London, and was there again in 1867. Thence he went to the St. James's Theater, Dec. 26, 1868. In February, 1869, he appeared in support of Adelaide Neilson at the Lyceum in *Life for Life*. He was then engaged as a member of the Bancroft company at the Prince of Wales's Theater. For six years he remained with this company, and was applauded as the most brilliant of London's young actors. His notable successes in 1872-'74 were Charles Surface in *The School for Scandal*, Alfred Evelyn in *Bulwer Lytton's Money*, and Geoffrey Delamayn in *Man and Wife*. He added to his fame the credit of a dramatist by producing at the Court Theater, March 12, 1875, a very clever comedy, *Lady Flora*, in which John Hare and Mr. and Mrs. Kendal played the principal parts. It had instant success and a long run. April 17, at the Prince of Wales's, he played *Shylock* in *The Merchant of Venice*, with Miss Terry as *Portia*, and was the means of bringing to attention that lady's great ability, though his own playing was too quiet to please those who were schooled to the traditions of the playhouse. Augustin Daly engaged Mr. Coghlan for the Fifth Avenue Theater, New York, in 1876, and he made his appearance there, Sept. 12, as Alfred Evelyn in *Money* to enthusiastic listeners. Almost at once he became the most popular man on the New York stage. During the season he played *Orlando*, Miss Fanny Davenport being the *Rosalind*, with great applause. The next season he was the leading man of the Union Square Theater, where he played *Jean Renaud* in the first wonderful run of *The Celebrated Case*, and for the season of 1878-'79 he was engaged as leading man of Wallack's Theater. In the summer of 1878 he played a short engagement in the California Theater, San Francisco, as a star. In Wallack's company he was associated with his sister Rose, then the leading lady of that theater. Together they played hero and heroine of the old and modern plays. In May, 1879, he played a short engagement at the Museum in Boston. On the opening of the Princess Theater, London, under control of Wilson Barrett, Mr. Coghlan played the *Marquis Des Arcis* in *Fernande*, Sept. 20, 1879. In Bronson Howard's *Banker's Daughter*, played at the Court Theater under the title *The Old Love and the New*, Dec. 18, 1879, he played

John Stratton. His own adaptation of Giacometti's *Morte Civile*, made famous by Salvini, was produced at the Prince of Wales's, Dec. 8, 1880, with himself in the part of Conrad. Another play, *Good Fortune*, arranged by him in this year from Octave Feuillet's *Romance of a Poor Young Man*, had been produced by the same company without Mr. Coghlan in the cast, Dec. 4. The Colonel was produced at the same theater on Feb. 2, 1881, Mr. Coghlan playing the part of Col. Wood, U. S. A., with very great success. This play was an adaptation from *Le Mari à la Campagne*, the same from which *The Serious Family* was written. At the Court Theater, Dec. 16, 1882, he made a thrilling portrayal of Capt. Darleigh, V. C., in *Comrades*. The first performance of *Fedora* at the Haymarket, May 5, 1883, presented him as the original Loris Spanoff in English. A stock company for the Fifth Avenue Theater, New York, was organized by John Stetson, of Boston, in the spring of 1883, and Mr. Coghlan was engaged as the leading man. He first appeared as Alfred Evelyn in *Money*, Oct. 8, 1883, and he played also Jean Renaud in *The Celebrated Case* and Henri de Lagadere in *The Duke's Motto*. Mr. Stetson suddenly closed the company, on account of which Mr. Coghlan subsequently recovered judgment from Mr. Stetson for salary at the rate of \$700 a week. He played a special engagement with Mrs. Langtry in *A Wife's Peril*, and, having been engaged as leading man for the Union Square Theater, opened there as Barton Blair in *Separation*, Jan. 28, 1884. At the close of the season he went again to England, and was engaged by Mrs. Langtry as her principal support. Jan. 20, 1885, he played Prince De Birac to the *Séverine* of Mrs. Langtry in his own adaptation of La Princesse Georges of the younger Dumas. This was followed by *The School for Scandal*, Mrs. Langtry as Lady Teazle and Mr. Coghlan as Charles Surface, and by *Peril*, in which he was the Captain Bradford. This was the beginning of an artistic association which continued between them without much interruption until 1891. *Enemies*, a dramatization by Mr. Coghlan of Georges Ohnet's *La Grande Marnière*, was produced by them at the Prince's Theater, London, Jan. 28, 1886. In the autumn of 1888 he prepared his sister's (Rose Coghlan) company for her tour as a star in his play *Jocelyn*, and rejoined Mrs. Langtry, who was preparing an elaborate production of *Macbeth* for New York city. This play was presented at the Fifth Avenue Theater, Jan. 21, 1889, with Mr. Coghlan as *Macbeth*. Mr. Coghlan spent about a year in retirement at his farm on Prince Edward's Island, and in the autumn of 1890 again joined Mrs. Langtry in London in a magnificent production of *Antony and Cleopatra*. In the part of Antony he added another to his London triumphs. On Feb. 28, 1891, his play *Lady Barter* was produced, with himself as Colonel Pearce. In the autumn of 1891 he joined his sister in a starring tour. They played principally his *Lady Barter*. During this engagement they revived *Diplomacy*, which they played at the Star Theater, New York. Mr. Coghlan's superb performance of Henri Beauclerc astonished and charmed a succession of crowded houses, and the play was taken to the Fifth Avenue Theater, where it had a long run. At the close of this season he retired again, but returned finally to London, where he played *Mercutio* with Forbes-Robertson's production of *Romeo and Juliet*. He was engaged by Mrs. Minnie Madden Fiske for her production of *Tess* of the D'Urbervilles, and gave an admirable rendition of Alec D'Urberville in that

play throughout the season of 1897-'98 in the United States, beginning at the Fifth Avenue Theater, March 2, 1897. On Dec. 2, 1898, he began his most successful venture in the United States by presenting his own adaptation of the elder Dumas's Edmond Kean, called *The Royal Box*, in which he played the part of the actor Clarence, at the Fifth Avenue Theater. He made more money, fame, and friends than ever until he offered, April 11, 1899, his play of *Citizen Pierre*, which was a failure. His last appearance in New York was on April 16. His last appearance on the stage was at Houston, Texas, Oct. 28, 1899, as Clarence in *The Royal Box*. The words that were written in 1790 of his kinsman, the MacCoghlan, last Lord of Delvin-Ara, well describe Charles Coghlan: "He was a remarkably handsome man, gallant, eccentric, proud, satirical, hospitable in the extreme, and of expensive habits." A contemporary American critic thus summed up his excellence as an actor in 1879: "It is to the complete and perfect forgetting of self in his performance that the high esteem in which Mr. Coghlan is held by the thinking audience is due. He never descends to the cheap creating of effects; he plays his part for all it is worth; he does not play Charles Coghlan, with the kind assistance of somebody's text, for the amusement of his friends and admirers." He was the author or adapter of these plays: *Lady Flora*, *Jocelyn*, *The Checkbook*, *Her Ladyship*, *Lady Barter*, *Citizen Pierre*, *The Royal Box*, *Good as Gold*, *The Brothers*, *A Quiet Rubber*, *For Life* (*Morte Civile*), and *The House of Darnley*.

Cole, Edmund Whiteford, manufacturer, born in Giles County, Tennessee, in 1832; died in New York city, May 25, 1899. He removed to Nashville when a young man, and was actively identified with the coal and iron and railroad industries of the South for forty years. He began his business life as a clerk in the employment of the Nashville, Chattanooga and St. Louis Railroad Company, of which he subsequently became president. In the early part of the civil war the rolling stock of this railroad was impressed by the Confederate authorities, and to secure his services to manage it he was commissioned a colonel and assigned to the quartermaster's department. Col. Cole was chief owner of three large blast furnaces in Sheffield, Ala., and had extensive holdings in valuable coal and iron properties. He was a member of the Methodist Episcopal Church, South, a director in its Book Concern, and president of its missionary society. The Tennessee Industrial School, one of the largest and most successful institutions in the State, was founded by him. An auditorium which he erected for the school at a cost of \$10,000 was completed a few weeks before his death.

Cole, Nelson, military officer, born in Dutchess County, New York, Nov. 18, 1833; died in St. Louis, Mo., July 31, 1899. He removed in 1854 to what was then called the far West, and ultimately settled in St. Louis. There he was engaged in the lumber business and manufacturing till April, 1861, when he organized and uniformed a company of volunteers for the National army. He reported with his company to Gen. Nathaniel Lyon, in St. Louis, April 17, and was at once ordered to protect the arsenal from an anticipated attack. Afterward he served under Gen. Lyon in the battles of Boonville, Dug Springs, and Wilson's Creek, in the last of which he was severely wounded. In 1862 and the spring of 1863 he was attached to the staff of Gen. John M. Schofield as chief of artillery. In Gen. Grant's campaign against Vicksburg he commanded a

battery, and after the surrender was appointed chief of artillery in the Department of Missouri. He was promoted major, Aug. 10, 1863; lieutenant colonel, Oct. 2; and colonel of the 2d Missouri Light Artillery, Feb. 5, 1864. In the spring of 1865 he was sent to the head waters of the Yellowstone river in command of an expedition of 1,500 veteran soldiers to subdue the northern Sioux, Arapaho, and Cheyenne Indians, and he accomplished that mission. He was mustered out of the service in November following, and returned to his business in St. Louis. On May 28, 1898, he was appointed a brigadier general of volunteers, and he was first assigned to the 3d brigade, 2d Division, at Camp Alger. Subsequently he was transferred to the camp at Columbia, S. C. The unwholesome conditions at Camp Alger undermined his health, and while at the Columbia camp he was obliged to resign. Gen. Cole was twice commander of the Department of Missouri, Grand Army of the Republic: senior vice-commander in chief, Grand Army of the Republic, in 1887; and a past commander of the Missouri Commandery of the Military Order of the Loyal Legion.

Collett, John, geologist, born in Eugene, Ind., in 1828; died in Indianapolis, Ind., March 15, 1899. He was graduated at Wabash College in 1847. In 1870 he was elected to the State Senate from Parke and Vermilion Counties, and he served through three sessions. He had been a student of geology from boyhood, and after his service in the Senate he was employed by Prof. E. T. Cox, the State Geologist, to make detailed geological surveys of the State. Subsequently he succeeded Prof. Cox. In 1878 he was appointed Statehouse commissioner, and in 1879 chief of the Bureau of Statistics and Geology.

Conant, Mrs. Helen Stevens, author, born in Methuen, Mass., Oct. 9, 1839; died in Brooklyn, N. Y., April 17, 1899. She married Samuel Stillman Conant, long the managing editor of *Harper's Weekly*, and assisted him in his work until his mysterious disappearance in 1885. She was the author of *The Butterfly Hunters* (Boston, 1868); *A Primer of German Literature* (New York, 1878); and *A Primer of Spanish Literature* (1879).

Cook, James H., clergyman, born in New York city in 1842; died there, Aug. 11, 1899. He was educated at Lincoln University, Pennsylvania, and in 1866 began to preach in the Union African Methodist Episcopal Church in New York. He was ordained in 1871, then spent several years in Springfield, Mass., returned to the Union Church in 1884, and in 1891 was elevated to the episcopate and assigned to the 2d district of Union African Methodist Episcopal churches, comprising 22 congregations in New York, New Jersey, Connecticut, and Massachusetts, with official residence in Wilmington, Del.

Cook, William H., physician, born in New York city in 1832; died in Chicago, Ill., April 14, 1899. In 1852 he became Professor of Chemistry in Syracuse (N. Y.) Medical College, in 1854-'84 was dean of the Physico-Medical Institute of Cincinnati, in 1891 removed to Chicago, and at the time of his death was president of the College of Medicine and Surgery and editor of *The Chicago Medical Observer*. He was the author of many medical treatises. Three of his sons are college professors.

Cooper, Ada Augusta, composer, born in Brooklyn, N. Y., in 1861; died in Orange, N. J., Sept. 18, 1899. She was graduated at Shaw University, Raleigh, N. C., and then taught for several years in the public schools of Raleigh and Washington, D. C. In 1892 she married the Rev.

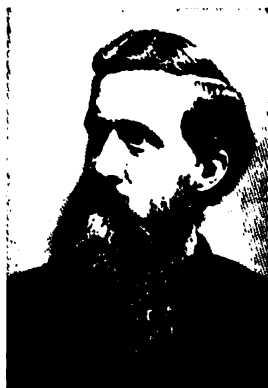
A. B. Cooper, D. D., then just entered on the ministry of the African Methodist Episcopal Church in Raleigh. She assisted her husband in his pastorates, going to Orange in the spring of 1899. She was a pleasing and eloquent lecturer on temperance and woman's work, an author and poet of high merit, a musical composer of grace and feeling, and had mastered several languages. She was the author of many hymns, anthems, and carols. Among her most ambitious works is the children's Easter Day service *He is Risen* and a special service, the first one ever written, for the Sunday schools of the African Methodist Episcopal Church.

Cooper, Job Adams, banker, born near Greenville, Ill., Nov. 6, 1843; died in Denver, Col., Jan. 20, 1899. He was graduated at Knox College, Galesburg, Ill., in 1865. While at college he enlisted in May, 1864, with many other students, in the 137th Illinois Infantry, and served till mustered out in the latter part of the same year. In 1867 he was admitted to the bar, and began practice in Greenville. In 1868 he was elected circuit clerk and recorder of Bond County, Ill., serving till his removal to Denver in 1872. For a time he practiced law, and later he became interested in a fire insurance agency, retiring to accept a place with the German National Bank. During the early years of his residence in the West he was interested in the stock business. In 1888 he was elected Governor of Colorado on the Republican ticket. At the expiration of his term he became president of the National Bank of Commerce of Denver, which office he held till 1897. From that time he devoted his attention to the management of his property interest and to mining at Cripple Creek.

Corey, Charles Henry, educator, born in New Canaan, New Brunswick, Canada, Dec. 12, 1834; died in Seabrook, N. H., Sept. 5, 1899. He was graduated at Acadia College, Wolfville, Nova Scotia, in 1858, and at the Newton (Mass.) Theological Seminary in 1861. In September of the last year he was ordained pastor of the First Baptist Church at Seabrook, N. H., where he remained till Jan. 1, 1864, when he entered the service of the United States Christian Commission. He remained in the field till the close of the war, and then went to South Carolina as a missionary to the freedmen, under the direction of the American Baptist Home Mission Society. In the ensuing two years he organized churches for the freedmen and secured for them ministers of their own race. In the autumn of 1867 he was appointed principal of the Augusta (Ga.) Institute, and in the following year he became president of Richmond (Va.) Theological Seminary. He received the degree of D. D. from Richmond (Va.) College, Baylor University, Texas, and McMaster University, Canada. His publications include *Reminiscences of Thirty Years' Labor among the Colored People of the South*.

Coues, Elliott, naturalist, born in Portsmouth, N. H., Sept. 9, 1842; died in Baltimore, Md., Dec. 25, 1899. He lived in Portsmouth until 1853, when he accompanied his parents to Washington, D. C., where he was educated at Gonzaga College and at Columbian University, being graduated at the last named in 1861 and at its medical department in 1863. Meanwhile, in 1862, he entered the United States army as a medical cadet, and a year later was promoted to assistant surgeon. He received the brevet of captain for services during the civil war, and resigned on Nov. 17, 1881. An early fondness for natural history led him to devote much attention to the flora and fauna of the regions adjacent to the posts

to which he was ordered, and soon resulted in his recognition as a naturalist. In 1809 he filled the chair of Zoölogy and Comparative Anatomy in Norwich (Vt.) University, and from 1873 till 1876 he was surgeon and naturalist to the United States Northern Boundary Commission, part of which time he was occupied at the Smithsonian



Institution as a collaborator. He then was assigned as surgeon to the United States Geological and Geographical Survey of the Territories, with which he remained until 1880, serving also in 1877 as Professor of Anatomy in the medical department of Columbian University, which chair he then held until 1887. In 1883 he was for a short time Professor of Biology in the Virginia Agricultural and

Mechanical College, but he devoted most of his time in recent years to editorial work, preparing revised editions of the writings of early American explorers. Dr. Coues received the honorary degrees of A.M. and Ph.D. from Columbian University, and was a member of more than 50 scientific societies in this country and abroad, including the National Academy of Sciences, to which he was elected in 1877. He was chairman of the Psychical Science Congress in Chicago at the time of the Columbian Exposition in 1893. He was an editor of the bulletins of the United States Geological Survey, *Bulletin of the Nuttall Ornithological Club*, *The American Naturalist*, *The American Journal of Otolology*, *The Auk*, *The Osprey*, *The Standard Natural History*, and *The Century Dictionary*. He contributed nearly 1,000 monographs or minor papers to scientific publications. His larger works included: *Key to North American Birds* (1872); *Field Ornithology* (1874); *Birds of the Northwest* (1874); *Fur-bearing Animals* (1877); *Monographs of North American Rodentia*, with Joel A. Allen (1877); *Birds of the Colorado Valley* (1878); *Ornithological Bibliography* (1878-'80); *New England Bird Life*, with Robert E. C. Stearns (1881); *Check List and Dictionary of North American Birds* (1882); *Avifauna Columbiana*, with Daniel W. Prentiss (1883); *New Key to North American Birds* (1884); *Biogen: A Speculation on the Origin and Nature of Life* (1884); *The Dæmon of Darwin* (1884); *A Buddhist Catechism*, with Henry S. Olcott (1885); *Kuthumi*, with R. Dodsley (1886); *Can Matter Think?* (1886); *Code of Nomenclature and Check List of North American Birds*, with Joel A. Allen, Robert Ridgway, W. Brewster, and H. W. Henshaw (1886); *A Woman in the Case* (1887); *Handbook of Field and General Ornithology* (1890); *History of the Expedition of Lewis and Clark* (1893); *The Expedition of Zebulon M. Pike* (1895); *New Light in the Early History of the Greater Northwest* (1897); *Citizen Bird*, with Mabel O. Wright (1897); *The Journal of Jacob Fowler* (1898); *Forty Years a Fur Trader on the Upper Missouri* (1898); and *On the Trail of a Spanish Priest* (in press).

Cracraft, John Wesley, clergyman, born near Cleveland, Ohio, in 1827; died in Saratoga, N. Y.,

Oct. 31, 1899. He was graduated at Bexley Theological Seminary, Gambier, Ohio, in 1849, and, after passing a year at Lane Theological Seminary, Cincinnati, was ordained to the ministry. He was at one time rector of the Church of the Epiphany in Philadelphia, and he held a similar office at Kenyon College, Ohio. His publications included *Judaizing the Teachers*, *Great Principles of the Gospel*, and *The Old Paths: Truths of the Gospel* (Cincinnati, 1870).

Crampton, Henry E., physician, born in New York city, April 10, 1837; died in Glen Ridge, N. J., May 28, 1899. He was graduated at the New York Medical College in 1857, served as a volunteer surgeon in the National army till stricken with typhoid fever, and afterward was identified with the work of relieving the poor of New York. He was for many years vice-president of the Association for Improving the Condition of the Poor, and was immediately in charge of the department of hygiene. Through his energy the spacious buildings and grounds at Coney island, known as Sea Breeze, were secured for the sick poor. Dr. Crampton was one of the first advocates of a free public bath system, and for many years he served as a free physician to the poor during the summer months and gave ocean parties for poor children.

Crapo, Thomas, sailor, born in New Bedford, Mass., in June, 1842; presumably drowned at sea, May 3, 1899. He made his first ocean voyage in a whaler when fifteen years old, and had followed the sea continuously. In the civil war he served for a while in the army under Gen. Banks, then with the navy under Admiral Farragut. His life was full of adventure. He had lived among the Eskimos and been captured and adopted by a tribe of South Sea Islanders. In 1877 he attracted public attention by sailing from New Bedford to Penzance, England, in a 20-foot whaleboat, schooner rigged, with leg-of-mutton sails, accompanied by his wife. On April 4, 1899, he left New Bedford in a flat-bottomed skiff, 9 feet long, 3 feet wide at the stern, and 14 inches deep, intending to make his way to Cuba. He was last seen by the Point Judith life-saving crew on the morning of May 3 in a heavy gale. His boat was found bottom up on the beach the next day, and it was supposed he was drowned while trying to round the point.

Crary, Mrs. Horace H., benefactor, born in Liberty, N. Y., about 1833; died in Denver, Col., July 7, 1899. She was a member of the Burr family, married Mr. Crary in 1851, and for many years lived in Hancock, N. Y., where her husband had a tannery. Subsequently the family settled in Binghamton, N. Y., where Mr. Crary died in 1897, leaving his widow large wealth. Mrs. Crary had long been noted for her charities. She supported missionary workers in China and India, contributed liberally to the benevolent enterprises of the Methodist Episcopal Church, was a patron of the Methodist Hospital in Brooklyn, and with Mr. Crary erected Crary Hall in Tennessee, an industrial school.

Creamer, Henry H., inventor, born a slave on a plantation in what is now West Virginia, about 1854; died in New York city, July 12, 1899. On gaining his freedom he went to Richmond, obtained employment in a plumber's shop, and soon began developing remarkable genius as an inventor. While working there and producing many improvements in the tools and work of the trade he took a course in a technical school, which greatly strengthened his inventive abilities. About twenty years ago he removed to New York city, studied theology, and for several years

held pastorates in New York and New Rochelle. A few years ago he gave up pastoral work and applied himself wholly to his inventions. He was a steam specialist. He received about 15 patents, covering an automatic pump governor and receiver, balance steam traps and valves, high- and low-pressure boiler feeders, and improvements and new devices used in electrical construction.

Crosby, Peirce, naval officer, born near Chester, Pa., Jan. 16, 1823; died in Washington, D. C., June 15, 1899. He was appointed a midshipman in the navy, June 5, 1838; was promoted passed midshipman, May 20, 1844; master, Nov. 4, 1852; lieutenant, Sept. 3, 1853; commander, July 16, 1862; captain, May 27, 1868; commodore, Oct. 3, 1874; and rear admiral, March 10, 1882; and was retired Oct. 29, 1883. He was on sea service twenty-three years and one month, and on shore or other duty twelve years and nine months. His first sea service was on the line of battle ship *Ohio* while it was the flag ship in the Mediterranean, 1838-'41, and in the next two years he was attached to the receiving vessel *Experiment*, the steamer *Mississippi*, the frigate *Congress*, and the sloop *Preble*. In 1843-'44 he was at the Naval School in Philadelphia. After spending two years on the Coast Survey, he was ordered to the sloop *Decatur*, on which he served in the Mexican War, taking part in the capture of *Tuspan* and *Tobasco*. In the last year of the war he was on the gunboat *Petrel*. During the interval between the Mexican War and the civil war he was on cruising and shore duty. In the spring and summer of 1861 he served in Chesapeake Bay, keeping communication open, capturing and destroying Confederate vessels in the bay, and cutting off supplies and communications of the enemy. He also performed duty on shore at Fort Monroe, and transported the troops across Hampton creek before and after the battle of Big Bethel. Immediately before the naval attack on Forts Hatteras and Clarke, when a light-draught vessel was needed to aid in landing troops, he took the canal boat *Fannie*, secured boilers to her deck by chains, joined the squadron, and in the face of a heavy sea landed a force of officers and men. One after another of his landing boats was swamped or broken on the beach. By the time he had put 300 men ashore the squadron was compelled to put to sea. Lieut. Crosby made a great show of his landing work, leading the Confederates to believe that the force was more than 2,000 strong, and then established a picket line across the front of the enemy's batteries, thus preventing a reconnaissance. On the following day the squadron returned and captured the forts, which were garrisoned by more than 700 men. Lieut. Crosby then captured several blockade runners who were ignorant of the victory. Soon afterward he was prostrated with typhoid fever. On his recovery he took the new gunboat *Pinola* from Baltimore to Admiral Farragut's squadron in the Gulf, capturing a schooner loaded with cotton on the way, and commanded her when she co-operated with the *Itasca* in breaking through the chain barrier across the Mississippi. Afterward he took part in the passage and bombardment of the forts and the Chalmette batteries and in the capture of New Orleans, and also in the passage, bombardment, and repassage of the batteries at Vicksburg. In 1863-'64 he was engaged in several expeditions, and while on blockading duty destroyed two blockade runners and captured five. In 1864-'65 he commanded the *Metacomet* in the attack on Mobile, planned and placed torpedo nets across Blakely river to catch floating torpedoes sent down to destroy the fleet,

and cleared the channel to the city by removing 140 torpedoes. After the war he was stationed at several navy yards, and also commanded the South Atlantic and Asiatic stations.

Dabney, Walter David, lawyer, born in Albemarle County, Virginia, in 1853; died in Charlottesville, Va., March 12, 1899. He was graduated at the law school of the University of Virginia in 1875. In 1885 he was elected to the Legislature, where he sat through four sessions, serving also on the Debt Commission and the Committees on Railroads and Internal Improvements and on Finance. While chairman of the first-named committee he prepared the manuscript of *Governmental Regulation of Railroads* (1889), which attracted the attention of Hon. Thomas M. Cooley, then chairman of the United States Interstate Commerce Commission, who solicited Mr. Dabney to become the legal secretary to the commission. He entered on this duty in 1890. Two years later, in arguing a case in the United States Court in Chicago, he won the friendship of Judge Gresham, then presiding, and when Judge Gresham became Secretary of State he appointed Mr. Dabney solicitor of the department. In 1895 Mr. Dabney retired from the State Department to take the chair of Common and Statute Law in the University of Virginia.

Daly, Charles Patrick, jurist, born in New York city, Oct. 31, 1810; died in North Haven, near Sag Harbor, Long Island, Sept. 19, 1899. In 1839 he was admitted to the bar in his native city, and in 1844 was appointed judge of Common Pleas, which office he held forty-two years. During this period Judge Daly rendered many important decisions, and, besides winning fame as a lawyer and a judge, became widely known as a scientist and a man of letters. For more than a generation he was president of the American Geographical Society, and his annual addresses before that body were valuable contributions to geographical literature. His published writings comprise *The Judicial Tribunals of New York, 1623-1846* (1855); *A History of Naturalization and of its Laws in Different Countries* (1860); *Are the Southern Privateersmen Pirates?* (1862); *Origin and History of Institutions for the Promotion of Useful Arts by Industrial Exhibitions* (1864); *When was the Drama Introduced into America?* (1864); *The First Settlement of the Jews in North America* (1875); *What we Know of Maps and Map Making before the Time of Mercator* (1879); *The Nature and History of the Surrogates Court in New York State*; *Comparisons between Ancient and Modern Banking Systems*.

Daly, John Augustin, dramatist and manager, born in Plymouth, N. C., July 20, 1838; died in Paris, France, June 7, 1899. He was the son of a retired officer of the British navy. The family lived for a time in Norfolk, Va., during Augustin's childhood, and on the death of his father his mother removed to New York, where the boy was apprenticed to a house furnisher. While he was in this employ his attention was attracted to the theater, and he and his brother, ex-Judge Joseph F. Daly, became members of an amateur dramatic society. When Augustin was about sixteen he wrote a play in one act, which he called *A Bachelor's Wardrobe*, and took it to William E. Burton, the comedian. Mr. Burton returned the manuscript with some complimentary words, and the young aspirant for dramatic honors kept on writing and submitting his works to actors, but without success. When about twenty years of age young Daly took employment as a story writer on the *Sunday*

Courier, of New York. He was allowed to write dramatic criticisms occasionally. These attracted the attention of other editors, and he was successively employed by the Express, the Sun, and the Times to furnish them with dramatic criticisms. His first success as a dramatist was an adaptation from the German of Mosenthal's Debo-



rah, which he named *Leah the Forsaken*. This play was produced at the Boston Museum, with Miss Kate Bateman in the title rôle, Dec. 8, 1862, and its success there was repeated when Miss Bateman produced it at the Winter Garden Theater, New York. It ran nine weeks, a very unusual run at that time. An adaptation from

La Papillonne by Mr. Daly and Frank Wood, called *Taming a Butterfly* (since renamed *Delmonico's*), had a run of a month in 1864 at Laura Keane's Theater. In the same year Mr. Daly adapted a play which he called *Leslie's Wedding*, successfully produced by Mme. Methua-Scheller, who also produced another from his pen from Frau Borch-Pfeffer's *Dorf und Stadt*, called *Lorle*. Miss Avonia Jones produced two more of his plays at the Winter Garden—*Judith* and *The Sorcerer*. Mr. Daly's first original play to reach the public ear was *Under the Gaslight*. This play, which by its great popularity laid the foundation of his fame and fortune, was produced in 1867 at the New York Theater. It ran thirteen weeks, and presented the sensation of a very realistic locomotive and train of cars rushing at express speed diagonally across the stage. This "effect," as it is called, was patented by Mr. Daly, and has afforded much opportunity for litigation. It may have been the success of this effect which suggested the title of his next play, *A Flash of Lightning*, adapted from Victorien Sardou's *La Perle Noire*. The wild Indian of the plains appealed to Mr. Daly at this time as a fine dramatic figure, and was introduced with full justification of the thought in a new play called *Horizon*. Meantime Mr. Daly had engaged in management in a tentative way. The *début* of Mme. Methua-Scheller at the Winter Garden Theater, New York, in 1864, was under his direction. In 1868 he became interested in the Olympic Theater, and managed the engagement of Mrs. Scott-Siddons. John Duff, a well-known manager, was lessee of the Olympic Theater in 1869, and a strong and earnest friendship existed between him and Mr. Daly, who on Jan. 7, 1869, married Mr. Duff's daughter Mary. James Fisk, Jr., owned a theater on Twenty-fourth Street, in New York, on the site of the present Madison Square Theater. This house, called the Fifth Avenue Theater, was offered to Augustin Daly, and with that began the latter's remarkable career as a manager. The theater was opened on Aug. 16, 1869, with Tom Robertson's *Play Dreams*, by Boucicault and Robertson, followed on Sept. 6, and *Old Heads and Young Hearts* on Sept. 27. Fanny Davenport, who had been a soubrette at Mrs. Drew's Theater in Philadel-

phia, made her first appearance under Mr. Daly's management as *Lady Gay Spanker* in Boucicault's *London Assurance* on Sept. 29. Then came Mrs. Scott-Siddons with a Shakespearean repertory, after which came a swift succession of standard plays by members of the company. On Jan. 12, 1870, a new play by Olive Logan, called *Surf*, entered upon a run of one month. By this time the public had realized that a new force was at work in the theater of New York, and Daly's company began to be a name to conjure with. It comprised Agnes Ethel, Fanny Davenport, Fanny Morant, Amy Ames, Clara Jennings, Edwin L. Davenport, George Clarke, D. H. Harkins, James Lewis, Owen Fawcett, J. B. Polk, Mrs. G. H. Gilbert, George Holland, George Parkes, George F. De Vere, and William Davidge. *Man and Wife* was the first play of the season of 1870-'71, in which Mr. Daly introduced Clara Morris to her New York triumphs. *Fernande* was produced, with Miss Ethel in the title rôle, Nov. 23, and Dec. 21 Bronson Howard's *Saratoga* was produced and ran one hundred nights. Mr. Daly produced *Divorce* on Sept. 5, 1871, and made no change until March 18, 1872. On April 2 Clara Morris, in *Article 47*, took New York by storm for the remainder of the season. The last season of this house began Sept. 3, 1873, with Bronson Howard's *Diamonds*, in which Sara Jewett made her first appearance. *False Shame* was produced on Dec. 31, 1873, and the next day the theater was destroyed by fire. The old New York Theater, 728 Broadway, was immediately leased by Mr. Daly and renamed the New Fifth Avenue. He opened this house on Jan. 21, 1873. On Dec. 3, 1874, he removed to Daly's Fifth Avenue Theater, Twenty-eighth Street. Here the success of his company continued, and on Feb. 17, 1875, he produced the first of his adaptations of German farces, *The Big Bonanza*. On Dec. 14 his *Pique* was produced, with very great success. A visit was made to San Francisco in the summer of 1876, where he rented Platt's Hall, a large concert room on Montgomery Street, and brought his scenery and company into that unaccustomed place, but the result was not satisfactory. On Sept. 15, 1877, Mr. Daly gave up the Fifth Avenue Theater, and for a short time directed Booth's Theater. He retired from management in 1878, and spent a year in Europe. The house now known as Daly's Theater was opened by him on Sept. 17, 1879. Charles Leclercq, Helen Blythe, Ada Rehan, Catherine Lewis, Digby Bell, Laura Joyce, and Estelle Clayton were members of the company, and the repertory offered no new plays of any importance. In 1881-'82 *The Passing Regiment* and *Odetta* were very successful. The season of 1882-'83 brought Miss Ada Rehan into favor in *The Squire*, 7-20-8, and *She Would and She Wouldn't*. In 1883-'84 successful productions were made of *Dollars and Sense*, *The Country Girl*, and *Red-letter Nights*. From this time Daly's Theater and Daly's company were institutions again. During the following seasons, with Miss Rehan, Miss Cheatham, John Drew, Otis Skinner, James Lewis, Charles Leclercq, and Mrs. Gilbert, and such plays as *Love on Crutches*, *A Night Off*, *The Country Girl*, *Nancy & Co.*, *Love in Harness*, and the magnificent revivals of *Taming of the Shrew*, *Merry Wives of Windsor*, and *Midsummer Night's Dream*, this theater was in its golden age. In the summer of 1884 Mr. Daly began a series of European engagements with his company. London, Paris, Berlin, and Vienna were visited with a certain amount of success, and the ventures were repeated every year until a solid and

apparently lasting success of his players in the English capital induced him in 1893 to lease a house in that city, which is called Daly's Theater. Of late years, Daly's company having been for long periods absent from his New York theater every year, that house has been occupied much more frequently by traveling and other companies than by its own players. Musical comedies, like *The Circus Girl* and *The Geisha*, had attracted audiences greatly differing in taste from those who filled its seats during the performances of sterling plays by the company, and the fortunes of the place seemed not as bright as formerly. The energy of the apparently indomitable man who presided with a kind of kingly authority over the methods of this playhouse seemed not to flag, but when sudden death touched him all who knew him wondered how he had borne up unresting under his great life work for so long a time. The list of his plays, original and adapted, is of itself proof of an apparently tireless industry, presenting the names of about 75 works. He was a rapid as well as careful worker. The managers of the New York Theater—Mark Smith and John Lewis Baker—were anxious to have an adaptation of Charles Reade's novel *Griffith Gaunt* in 1868, and Mr. Daly was asked to do the work. He brought the first act to the theater next morning, and it was at once put in rehearsal. He finished an act each day, and on the night of the fourth day the play was produced with great success. It ran fifty nights. Augustin Daly in all his work aimed at a high standard of dramatic art. Men and women under his direction became accomplished players, and the drama of English speech was enriched by the best examples of modern play making. He was an ardent book lover, and his collection of works relating to the drama was one of the finest in the world. He devoted his leisure for several years to the preparation and printing of a life of Peg Woffington, copiously illustrated with reproductions of all the known portraits of that actress. He completed, after years of assiduous labor and research, a magnificent extra-illustrated copy of the Douai Bible, at a cost of \$25,000, which is unique and almost priceless.

Danforth, George Franklin, jurist, born in Boston, Mass., July 5, 1819; died in Rochester, N. Y., Sept. 25, 1899. He was graduated at Union College in 1840, and, after being admitted to the bar, began practicing in Rochester. In 1876 he was defeated as the Republican candidate for judge of the New York State Court of Appeals, but in 1878 he was renominated and elected. On the expiration of his term he became a member of the Judiciary Commission. Excepting these offices, he held no public charge, his time being wholly occupied with his extensive practice. He died of apoplexy in the courtroom just as he had finished arguing a case.

Darche, Louise, educator, born in Ontario, Canada, about 1854; died in London, England, June 1, 1899. She was graduated at the Bellevue Training School for Nurses in New York city, and in January, 1888, was appointed superintendent of the Training School for Nurses on Blackwell's island. In the autumn of 1897 overwork and ill health forced her to resign. She sought recuperation by going abroad. Miss Darche was a woman of exceptional energy and executive ability, and had the reputation of being one of the best-trained nurses in the country. While she was in charge of the Blackwell's island school her work was extended from the wards for women to those for men also, because of her improved methods of treatment. She concerned

herself deeply with the professional interests of the nurse pupils under her charge, and seemed never to spare herself in the execution of her regular and self-imposed duties. The title of F. Marion Crawford's romance *Marion Darche* was suggested by a visit to the Blackwell's island school. He was impressed with the importance of her work, and combined her family name with his own Christian name in the title of his story.

Davidge, William, actor, born in Manchester, England, March 11, 1847; died in Chicago, Jan. 26, 1899, son of the popular comedian of the same name (1814-'88). He was but three years of age when brought to America. The family settled in Brooklyn, N. Y., and young Davidge was educated in the public schools there. He made his *début* at the French Theater, Broadway, as the Widow Meddlenotte in *The Lady of the Lions*, a burlesque on Bulwer's play. He then ran away from home and played a few months with a stock company in Newark, N. J. His father finally procured an engagement for him as second low comedian of the Brooklyn Park Theater. He was engaged immediately thereafter for the Holman company, with which he remained as comedian for four years. In 1870-'71 he was associated with William H. Crane and Frank Drew in an operatic tour in Canada. During this tour he married the popular actress Maggie Harold. He was next engaged as comedian of Wood's Museum, Philadelphia, and subsequently at the Arch Street Theater to replace Stuart Robson. In the summer of 1875 he assumed the management of the Museum. He produced *The Two Orphans* there in a run of 169 performances in 1877, playing himself the part of Pierre. He was comedian of Kate Claxton's company in the season of 1877-'78, and then played the comedy part in a long run of *Enchantment* at Niblo's Garden, New York. He was then for a season with Augustin Daly, playing *Hercules Brown* in *The Arabian Nights*. Mr. and Mrs. Davidge then formed a company of their own, called the Maggie Harold Comedy Company, and played comedies for many seasons on the road. Mr. Davidge from 1881 to 1883 was the comedian and character actor of the Bijou and Museum Theaters in Philadelphia. He played subsequently several seasons with Roland Reed. His last engagement was with the Dearborn stock company in Chicago, where he made his last appearance.

Davies, Thomas Alfred, military officer, born in Black Lake, N. Y., Dec. 3, 1809; died there, Aug. 19, 1899. He was a son of Thomas John Davies and a brother of Charles Davies, the noted mathematician, and of Henry Eugene Davies, chief justice of the New York Court of Appeals. Thomas Alfred passed his youth on his father's farm, and when sixteen years old was sent to the United States Military Academy, where he was graduated in 1829. He entered the army as brevet second lieutenant in the 1st Infantry, and served at Fort Crawford, in Wisconsin Territory, and at West Point, as post quartermaster, till 1831, when he resigned and engaged in mercantile business in New York. Meeting with financial reverses in 1837, he accepted employment as a civil engineer in the construction of the Croton Aqueduct, and spent two years in that work, particularly in the building of High Bridge. He then resumed mercantile life and continued it till the outbreak of the civil war, when he offered his services to the Government and was commissioned colonel of the 10th New York Volunteers. After some service in Washington and the organization of the Army of the Potomac, he was assigned to the command of the 2d Brigade, 5th

Division. He led the advance on Centerville, and on the day of the battle of Bull Run received command of the 5th Division, and with part of his troops defeated an attempt to turn the left flank of the National army. When the retreat began he fell back to Centerville, and, posting his division on the heights, covered the retreat of the remainder of the army and checked the pursuit. He held his position till midnight, and then, under orders, retired to Alexandria. The winter he spent in the defenses of Washington. On March 7, 1862, he was promoted brigadier general and transferred to Gen. Halleck's army in the West, in which he became commander of the 2d Division (Army of the Tennessee). In the movement against Corinth he took part in the advance and the siege, and in the battle his division alone for a time engaged the whole force of the enemy. For these services he and his command were officially commended by Gen. Rosecrans. Subsequently he commanded the military districts of Columbus, Ky., Rolla, Mo., northern Kansas, and Wisconsin, and on June 11, 1865, he was brevetted major general of volunteers. Soon afterward he resigned and returned to New York, where he had acquired large property interests. Gen. Davies was the inventor and patentee of many devices, including some improvements in railroad construction which have been used with success. He also spent much time in philosophic and theological speculation, and was a firm believer in the authenticity and inspiration of the Bible. He was the author of numerous works, including *Cosmogony*; or, *Mysteries of Creation* (New York, 1858); *Adam and Ha-Adam* (1859); *Genesis Disclosed* (1860); *Answer to Hugh Miller and Theoretical Geologists* (1861); *How to Make Money, and How to Keep It* (1866); and *Appeal of a Layman to the Committee on the Revision of the English Version of the Holy Scriptures, to have Adam and Ha-Adam restored to the English Genesis where left out by Former Translators* (1875).

Davis, George Royal, director general of the World's Columbian Exposition, 1890-'94, born in

Palmer, Mass., June 3, 1840; died in Chicago, Ill., Nov. 25, 1899. He prepared for college at Williston Seminary, but, abandoning a college education, he enlisted as a private in the 8th Massachusetts Volunteers in 1861, and served throughout the civil war. He became a captain in the 8th Massachusetts and major of the 3d Rhode Island Cavalry. Upon being mustered out

of service he received a civil appointment at Gen. Phil Sheridan's headquarters, and went through the Indian campaigns of 1868 and 1869 in southern Kansas and Indian Territory. In 1871 he resigned and went into business in Chicago. He was elected to Congress in 1876, and was twice re-elected. He was a delegate to several national Republican conventions, but he was best known for his work in connection with the World's Columbian Exposition, which owed much of its success to his executive ability. (See *Authorized History of the World's Columbian Exposition*, 4 volumes, New York, 1898.)



Davis, Jesse L., song writer, born in Cincinnati, Ohio, Dec. 3, 1863; died in Whitestone, Long Island, N. Y., Oct. 18, 1899. He was a negro and a graduate of Gaines College, in his native city. For many years he had been known widely as a writer of popular songs, the most familiar of which are *The Lighthouse by the Sea*, *Wait till the Tide Comes In*, *Why don't you Write a Letter Home?* In the *Baggage Coach Ahead*, *The Fatal Wedding*, *Send Back the Picture* and the *Ring*, and *Down in Poverty Row*.

Dawes, Rufus E., military officer, born in Malta, Morgan Co., Ohio, July 4, 1838; died in Marietta, Ohio, Aug. 2, 1899. He was graduated at Marietta College in 1860, and in 1861 entered the National service as a captain in the 6th Wisconsin Volunteers, which formed a part of the famous "Iron Brigade." He served through the war, attaining the rank successively of major, lieutenant colonel, colonel, and brigadier general by brevet, took part in 20 battles, was several times wounded, and was the only officer of his regiment that went through the war. After the war he engaged in business in Marietta, and he was a Representative in Congress in 1880-'82. He was the father of Charles G. Dawes, controller of the currency.

Dewey, Chester Pomeroy, journalist, born in Pittsfield, Mass., Jan. 10, 1826; died in Rochester, N. Y., Aug. 5, 1899. He was the eldest child of Dr. Chester Dewey and his wife, Olivia Pomeroy, and went with his parents to Rochester in 1836. He was graduated at Williams College in 1846, and then spent a year as private tutor in the Taliaferro family in Virginia. Returning to Rochester, he studied law, and in 1850 was admitted to the bar in New York. Before he had time to establish himself in practice he was called to a place on the staff of the *Daily American*, of Rochester. He remained with the *American* till 1858, when it was consolidated with the *Democrat*, and then, returning to New York, was sent by the *Evening Post* into Illinois to report the famous debate between Abraham Lincoln and Stephen A. Douglas in their canvass for the United States Senate. On completing this assignment he took an editorial place on the *Commercial Advertiser*, of New York, with which he remained seventeen years, going thence to the *Brooklyn Argus*, the *American Agriculturist*, of New York, and the *Commercial Bulletin*, also of New York. Since 1890, because of failing health, he had not been steadily engaged in editorial work. Within a few weeks of his death he gave up his Brooklyn home and returned to Rochester. Mr. Dewey was an earnest student throughout his life, and he had a singularly retentive memory.

Dingley, Nelson, legislator, born in Durham, Me., Feb. 15, 1832; died in Washington, D. C., Jan. 13, 1899. He was brought up on his father's farm and in his country store. His early education was obtained in the local district and high schools. When seventeen years old he began teaching, and he continued to teach each winter till he entered Waterville College in 1851. Eighteen months later he went to Dartmouth College, where he was graduated in 1855 with high rank as a student, debater, and writer. His family removed to Auburn in 1854, and there he studied law, and was admitted to the bar in 1856. But the same year he purchased the *Lewiston Journal*, of which he was editor and proprietor till his death. In 1854 he cast his first vote for Anson P. Morrill, the antislavery and temperance candidate for Governor, and in 1856 he wrote and spoke for the first Republican candidate for the presidency, John C. Frémont. He was elected to the Legis-

lature in 1861, 1862, and 1863, and in the last year was chosen Speaker. Removing to Lewiston, he was re-elected to the Legislature in 1864, 1865, 1868, and 1873, and was again Speaker in 1864, declining a re-election to that office in 1865. In 1873 he was elected Governor of Maine by a majority of about 10,000, and in 1874 was re-elected with a majority of about 11,000. He declined a renomination in 1875. During the next six years his political work was chiefly in the interest of the Republican party in his State. He was first elected to Congress to fill the vacancy caused by the promotion of William P. Frye to the United States Senate, Sept. 12, 1881, and he held the seat by successive re-elections till his death. In this service he performed effective work as a member of the Committees on Banking and Currency, on American Shipbuilding and Shipowning Interests (select), on Merchant Marine and Fisheries, and, above all, on Ways and Means. From the beginning of his congressional career he was conspicuous as a defender of the principle of protection. He strongly opposed the Mills tariff bill in 1888, aided in the drafting of the McKinley bill in 1890, opposed the Wilson bill in 1894, and as chairman of the Committee on Ways and Means had charge of the bill of 1897 that bears his name. When President McKinley was forming his Cabinet he was anxious that Mr. Dingley should accept the office of Secretary of the Treasury, but the latter believed he could serve the country and party best by retaining the leadership of the House. In 1898 President McKinley appointed him a member of the Joint High Commission on the controversies between the United States and Canada. Mr. Dingley received the degree of LL. D. from both Bates and Dartmouth Colleges.

Dodd, Moses Woodruff, publisher, born in Bloomfield, N. J., Nov. 11, 1813; died in New York city, April 8, 1899. He was graduated at Princeton College in 1837, and immediately entered its theological seminary, but failing health soon caused the abandonment of his plans. In 1839 he entered into partnership with John S. Taylor, then one of the foremost publishers of religious books in New York city. In the following year Mr. Taylor withdrew, and for thirty years the business was continued in the name of M. W. Dodd. He continued in active business till 1870, when, on retiring, he was succeeded by a son and a nephew, under the firm name of Dodd & Mead. This name was subsequently changed to Dodd, Mead & Co., as at present. Mr. Dodd was an elder in the Presbyterian Church for fifty years. He was a remarkably well-preserved man, and to his last days had an absorbing interest in church music and painting, as well as in the fine arts generally.

Dodge, Reuben Rawson, genealogist, born in East Sutton, Mass., April 3, 1819; died in Saundersville, Mass., Aug. 24, 1899. He was brought up on his father's farm, and followed the carpenter's trade for twenty years. He belonged to three large and well-known families, and spent much of the past sixty years in compiling genealogies of them. In 1838 he published his *Genealogy of the Rawson Family*, and in 1879 his *Genealogy of the Dodge Family*. He discovered in Antiquarian Hall, Worcester, in 1873, the manuscripts relating to the early history of Sutton, which were afterward edited by the Rev. W. A. Benedict. In 1897 he published an *Historical Sketch of the Leland Hill and Old Stone School Districts in Sutton*, and in 1898 a pamphlet containing the names and inscriptions on more than 1,100 gravestones in six Sutton cemeteries. His

Rawson and Dodge genealogies have passed through several editions.

Doerflinger, Augustus, civil engineer, born in Baden, Germany, in 1845; died in Brooklyn, N. Y., Nov. 24, 1899. In 1849 he came to the United States. He was graduated at Cornell University in 1871 with the degree of C. E., entered the service of the United States Government, and was assigned to the Atlantic coast division of the engineering department. He was employed for a long time on the work at Hell Gate, and, in conjunction with J. H. Strietinger, invented a method of simultaneous explosion. The French Government awarded him a gold medal at the French exposition. After the completion of the work at Hell Gate he was in charge of the construction of the Harlem river ship canal, and later he worked on the channels at the entrance to New York harbor. He directed the placing of the land batteries on Sandy Hook at the beginning of the Spanish-American War. He was consulting engineer of the Grant monument.

Dow, Lorenzo, inventor, born in Paris, Me., July 10, 1825; died in New York city, Oct. 12, 1899. He was graduated at Wesleyan University in 1848, spent four years in mining in California and Nevada, and, after a brief residence in New York, settled in Topeka, Kan., of which he became the first mayor. In the early part of the civil war he invented improvements in ammunition, including the waterproof cartridge bearing his name, and manufactured such supplies for the Government. After the war he spent several years in South America, working valuable interests in gold mines and hard lumber that he had acquired in Colombia. On his return to the United States he settled in Colorado, where he aided in developing the towns of Silverton and Gladstone. He became interested in the problem of irrigating the arid lands, and through his inventive skill and wide experience was of much service in establishing the present system of irrigation. During the last fifteen years of his life he had applied himself almost wholly to making and perfecting the typesetting machine that bears his name in New York.

Duggan, James, clergyman, born in Dublin, Ireland, in 1825; died in St. Louis, Mo., March 27, 1899. He came to the United States in early life, and was ordained in the Roman Catholic Church at St. Louis in 1847. His first appointment was as superior of the St. Louis Theological Seminary at Carondelet, in which he also became a professor. In 1850 he was attached to the cathedral in St. Louis, and in 1854 was appointed vicar general of the diocese and pastor of the Church of the Immaculate Conception. In 1857 he became Bishop of Gabala and coadjutor of St. Louis. Two years later he was made Bishop of Chicago. His health soon gave way under the burdens of his new post, and he made a trip to Europe. While he was there complaints were made against his administration, and, returning to his diocese, he removed some of the remonstrants. An appeal was made to Rome, and the trouble was referred to the Archbishop of St. Louis. As none of the accusers appeared, their charges were dismissed. About this time it became evident to the bishop's friends that his mind was seriously affected. He sought medical advice and traveled in Europe, but his once brilliant intellect soon became a blank, and in 1870 he was placed in an asylum.

Dunton, Larkin, educator, born in Concord, Me., July 22, 1828; died in Allston, Mass., Oct. 30, 1899. He was graduated at Waterville College in 1855, and was admitted to the bar at

Augusta, Me., but practiced very little. He taught for short periods in the Hallowell High School, Bath High School, and Lincoln Academy, and for seven years was principal of Bath High School. On April 1, 1867, he became submaster of the Lawrence School, Boston, and in 1868 was made master. In 1872 he was elected master of the Boston Normal School, which office he held till Sept. 1, 1899, when he resigned. He received the degree of LL. D. from Colby University in 1880. Dr. Dunton edited a memorial volume of Dr. John D. Philbrick, and published several text-books, among them *The Normal Course in Spelling*, *The Young Folks' Library*, *Stories of Child Life*, and *The World and its People Series of geographical readings*.

Durfee, William Franklin, civil engineer, born in New Bedford, Mass., Nov. 15, 1833; died in Middletown, N. Y., Nov. 14, 1899. After a practical mechanical training at home, he took a special course of study at the Lawrence Scientific School of Harvard University. In 1853 he became an engineer and architect in New Bedford, and for five years served as city surveyor. In 1861 he was elected to the Massachusetts Legislature. He introduced a resolution which is believed to have been the first formal proposition for arming negro troops in the civil war. In June, 1862, he went to Lake Superior to test the suitability of the iron ore for the manufacture of steel by a method invented by William Kelley, and he succeeded in producing some ingots of steel from which, May 25, 1865, were rolled the first steel rails made in the United States. He established at Wyandotte, Mich., an analytical laboratory for the purpose of studying the Bessemer process. In 1876 he was one of the judges of machine tools at the Centennial Exposition. He afterward built at Ansonia, Conn., the first successful furnaces for refining copper by the use of gaseous fuel. In 1886 he became general manager of a company that controlled patents for the production of wrought iron and steel castings.

Earle, George, lawyer, born in Maryland, Sept. 10, 1821; died in Washington, D. C., May 10, 1899. For several years he was a law partner of John A. J. Creswell, who became Postmaster-General under President Grant. In 1864 he was a member of the Judiciary Committee of the convention that revised the State Constitution and abolished slavery in the State, and, although a slaveholder, he urged immediate emancipation. In 1869 he was appointed First Assistant Postmaster-General, and under his direction the postal service was fully restored in the Southern States. After completing this work he resigned and practiced law in Washington. In recent years he had applied himself to literary work relating to his native State and the proceedings of the Continental Congress.

Eastwood, Benjamin, clergyman, born in Clitheroe, England, July 4, 1825; died in Pawtucket, R. I., Jan. 26, 1899. He was ordained in the Church of England, Aug. 19, 1846, soon afterward espoused the Wesleyan movement, and returned to his first Church some years before coming to the United States. After holding rectorships in Plymouth and Torrington, Conn., he went to the Church of the Good Shepherd, in Pawtucket, more than twenty-five years ago, and remained there as active and emeritus rector till his death. He was a warm friend of Horace Greeley and a frequent contributor to his *Tribune*. He published *Trials and Triumphs among the Lowly and Cranberry Culture*.

Eberhart, Wilford Avery Power, engineer, born in Beaver, Pa., Sept. 12, 1819; died in Cedar

Rapids, Iowa, Feb. 14, 1899. He was educated at Beaver Academy, and when twenty years old joined his uncle, Gen. Thomas J. Power, and had several years' practical training with the corps of engineers that made the preliminary surveys for the present Philadelphia and Erie Railroad. For several years afterward he was resident engineer of the Northern Central Pennsylvania Railroad, and he had special charge of the construction of the long bridge across the Susquehanna, near the mouth of the Juniata. When his uncle became president of the Erie and Pittsburgh Railroad Mr. Eberhart was placed in charge of the construction of the northern division of the road. In 1856 Mr. Eberhart entered the Methodist ministry, joining the Erie Conference. He was commissioned chaplain of the 1st Pennsylvania Light Artillery in September, 1861, and served with it till July 21, 1862, when he was compelled to resign because of a wound received in the battle of Williamsburg. In 1871 he removed to Union, Hardin County, Iowa, where he served as county surveyor eight years, and then in pastoral work till within a week of his death.

Edgar, George (George Edgar Biddle), actor, born in New York city in 1841; died there, Feb. 25, 1899. His grandfather, John Hogg (1770-1813), was for several years an important member of the Park Theater company, New York. Mr. Edgar's earlier years were spent in commercial pursuits. His long-continued studies of the classic drama led him to assume the management of the old Broadway Theater in partnership with Chandos Fulton in 1878. His first appearance as an actor was in this theater in the character of King Lear, Jan. 27, 1879. He achieved considerable success, and on Feb. 10 following he played Othello. He was distinctly successful in the latter part. In 1882 he established a fine stock company in Chicago, with which he played for a time Othello, Lear, Macbeth, and Richelieu. The venture was not financially successful, and Mr. Edgar returned to New York, where he played an engagement as Othello at the Fourteenth Street Theater, beginning Sept. 10, 1883. He then established himself in New York as a teacher of dramatic art, making occasional short tours. During one of these tours Margaret Mather made her first appearance on the stage as one of Mr. Edgar's pupils. On Aug. 16, 1890, he began a short engagement in a play called *The Banker* at the Windsor Theater, New York. His last appearance was in Jim the Penman, with the Madison Square Theater company.

Egbert, Harry C., military officer, born in Pennsylvania, Jan. 3, 1839; died in front of Malinta, Philippine Islands, March 26, 1899. He was appointed from civil life first lieutenant in the 12th United States Infantry, Sept. 23, 1861; was promoted captain, April 1, 1865; major of the 17th Infantry, April 23, 1890; lieutenant colonel, 6th Infantry, May 18, 1893; and colonel, 22d Infantry, July 1, 1898. In the volunteer service he was commissioned a brigadier general, Oct. 1, 1898, and was honorably discharged on Dec. 1 following. He took part in the battles of Gaines's Mills, Malvern Hill, Cedar Mountain, Bethesda Church, North Anna, and Gettysburg in the civil war, was captured at Cedar Mountain and Gettysburg, and was severely wounded at Bethesda Church. After the war he took part in the Nez Percés Indian campaign of 1877 and that against the hostile Sioux in 1890-'91. At the beginning of the war against Spain he was lieutenant colonel of the 6th Infantry. This regiment he commanded in the Santiago campaign till shot through the body while leading a charge against

the Spanish works at El Caney, July 1, 1898. For his heroism in this fight he was promoted to colonel of the 22d Infantry, whose commander, Charles A. Wikoff (see obituary in the Annual Cyclopædia for 1898), was killed near San Juan Hill the same day that Col. Egbert was wounded. As soon as practicable Col. Egbert was sent to New York for hospital treatment, and before he had fully recovered he applied for service in the Philippines. He sailed with his regiment for Manila, Feb. 1, 1899; arrived there, March 4; and in the storming of Malinta received a wound from which he died within an hour.

Elbert, Samuel H., lawyer, born in Logan County, Ohio, in 1833; died in Galveston, Texas, Nov. 27, 1899. He was graduated at Wesleyan University, Ohio, in 1854, studied law, was admitted to the bar in 1856, and subsequently removed to Plattsmouth, Neb. He was a delegate to the National Republican Convention of 1860, took an active part in the campaign in support of Mr. Lincoln, and later was elected to the Nebraska Legislature. In 1862 he was appointed Secretary of the Territory of Colorado, and from that time was closely identified with its history. In the winter of 1864-'65, as acting Governor, he took a decided stand against the Indians, who were causing trouble on the lines of travel to the East. From 1865 till 1873 he continued his law practice. In the latter year he was appointed Governor of the Territory, and during his administration he gave particular attention to the subject of irrigation. A bitter political feud resulted in his removal from office in 1874, although no charge was made against him. He spent 1875-'76 in Europe, and on his return was made a judge of the Supreme Court of Colorado. He resigned this office in 1882, was again elected in 1885, and served till 1888, when he resigned on account of failing health. He received the degree of LL. D. from Wesleyan University.

Eldridge, Shaler W., abolitionist, born in West Springfield, Mass., in 1817; died in Lawrence, Kan., Jan. 17, 1899. Prior to 1855, when he went to Kansas, he was a railroad contractor. He bought the American House in Kansas City, which was the recognized headquarters of the Free-soil men. Proslavery men often stopped at the hotel in their incursions into Kansas, and trouble between the two factions was frequent. At one time a large body of border ruffians beset the house, demanding the delivery to them of the Free-soil guests, but Eldridge and his hotel force made a successful armed resistance. When Gov. Reeder escaped from the Territory in 1856 Eldridge concealed him three weeks in his house. In that year Eldridge leased the Free State Hotel in Lawrence, but within a few weeks it was destroyed by Sheriff Jones and his posse under a writ of indictment as a nuisance, issued by the proslavery court. This act greatly stirred the Free-soil men, and they appointed Eldridge a commissioner to go to Washington with a memorial in their interest, and also instructed him to represent them in the convention that nominated Fremont. He was also a delegate to the convention in Buffalo, where he was appointed a member of the National Committee and its agent for Kansas immigration. Under this authority he conducted large bodies of men to Kansas through Iowa and Nebraska. With one of these parties, numbering about 350 men, he was captured by United States troops. Later he organized a party of Free-soil men, who recaptured the arms from the Government officers at Leecompton. During all this exciting period he raised large amounts of provisions and ammuni-

tion, which he smuggled into the Territory, and powerfully aided the free State cause. In the civil war he served in the National army as soldier and paymaster, and afterward he was engaged in the hotel business till his death.

Ellerbe, William Haselden, politician, born in Marion County, South Carolina, April 7, 1862; died there, June 2, 1899. He studied at Vanderbilt University, but was obliged by failing health to give up the course. He then became a planter and merchant, and was so engaged at the beginning of the Tillman movement in 1886. To this revolt against the old political leaders of South Carolina he gave early and enthusiastic support, and in 1890 was elected Comptroller General of the State. In 1896 he promoted a movement to combine the forces of the opponents and more moderate followers of Mr. Tillman. He had attained much popularity throughout the State, and was the first choice of the leaders of the conciliation movement for the gubernatorial nomination in 1896. In his canvass he pledged himself to know no faction, and in the election he carried every county but one. He was renominated in 1898 and was again elected, though by a largely decreased majority. In his last campaign he was suffering with consumption, and he failed rapidly. (See portrait in Annual Cyclopædia for 1897, page 731.)

Ellis, Jacob H., composer, born in Kingston, N. Y., in 1871; died in Asheville, N. C., Feb. 28, 1899. When thirteen years old he composed The Ulster Academy March, and afterward he produced the music for a score of instrumental pieces and songs, as well as for popular dances. Among his best-known compositions are The Shenandoah March, The Carnation Waltzes, Under the Palms, The Columbian Exposition Polka, Boulevard Lancers, Diana's Jubilee, Bonnie Brier Bush, Remus takes the Cake, and The Man who has the Cash.

Elwell, James William, philanthropist, born in Bath, Me., Aug. 27, 1820; died in New York, Sept. 2, 1899. He was educated at Bath Academy, and after leaving school joined his family, which had removed to Brooklyn, N. Y. He entered his father's commission house in New York, and when eighteen years old became a partner in the firm. In 1852, five years after his father's death, he founded the firm of James W. Elwell & Co., with which he was actively connected till within seven weeks of his death. The firm established lines of vessels to the principal Southern, West Indian, South American, and European ports, and Mr. Elwell acquired large influence in the commercial world. He was an original incorporator of the Shipowner's Association and of the Marine Bank, and was interested in many financial concerns. It is believed that in the past twenty years his philanthropic gifts aggregated \$3,000,000. He was a founder of the Brooklyn Orphan Asylum, the originator and for many years president of the Helping Hand Society, a trustee of the American Congregational Union for twenty years, and a trustee or director of the Seamen's Friend Society of New York, the New York Port Society, the City Mission and Tract Society of Brooklyn, the Home for Friendless Women and Children, the Mariners' Family Asylum of Staten Island, the Fresh-air Fund, and many other benevolent associations. (See GIFTS AND BEQUESTS.)

Ernsberger, Mary Annin, missionary, born in Newark, N. J., Feb. 18, 1864; died in Gulbarga, India, Sept. 30, 1899. She was a daughter of the Rev. George Hughes, was graduated at Mount Holyoke Seminary, and in 1886 entered the foreign mission field of the Methodist Episcopal

Church, and was assigned to Madras, India. She married there the Rev. D. O. Ernberger, a missionary, and with him was instrumental in founding the Madras orphanages.

Etheridge, James, gynecologist, born in St. Johnsburg, N. Y., March 20, 1844; died in Chicago, Ill., Feb. 10, 1899. He was Professor of Gynecology at Rush Medical College. In 1887 he was president of the Chicago Medical Society, and in 1890 of the Gynecological Society. He was also connected with many other professional bodies, and contributed to medical journals.

Eustis, James Biddle, diplomatist, born in New Orleans, La., Aug. 27, 1834; died in Newport, R. I., Sept. 9, 1899. He was a son of George Eustis, Chief Justice of Louisiana, was educated in Brookline, Mass., and at Harvard Law School, and was admitted to the bar in 1856. He practiced in his native city till the beginning of the civil war. Entering the Confederate service, he was judge advocate on the staff of Gen. Magruder till 1862, and thence till the close of the war on that of Gen. Joseph E. Johnston. After the war he served in each house of the State Legislature. In 1876 he was elected United States Senator to fill an unexpired term. After a tour of Europe he became Professor of Civil Law in the University of Louisiana, and served till 1884, when he was again elected to the United States Senate. Here he was a member of the Committee on Foreign Relations. In March, 1893, he was appointed minister to France. He had charge of the protracted negotiations which resulted in the pardon of John L. Waller, ex-United States consul in Madagascar, who had been sentenced to twenty years' imprisonment on a charge of having illegally communicated with the Hovas during the French campaign. On the expiration of his term, in 1897, Mr. Eustis engaged in law practice in New York. While studying law he had translated into English the Institutes of Justinian, and after the war he translated Guizot's History of Civilization.

Fairbairn, Robert Brinckerhoff, educator, born in New York city, May 27, 1818; died in Brooklyn, N. Y., Jan. 27, 1899. He was graduated at Washington (now Trinity) College, Hartford, Conn., in 1840, studied at the General Theological Seminary, New York city, and became rector of Christ Church, Troy, N. Y. Thence he went to St. John's Church, Stillwater, N. Y., which he left in 1853 to become principal of Catskill Academy. Ten years later he accepted the professorship of Mathematics in St. Stephen's College, Annandale, N. Y., of which he was subsequently president twenty-eight years. Under his administration the college rose from the grade of a primary school to that of an advanced institution, with property worth \$500,000. He retired in 1891. He received the degree of D. D. from Trinity College in 1864, and LL. D. from Delaware College in 1876 and Columbia in 1887. Among his best-known works are *The Child of Faith*, *College Sermons*, and *The Doctrine of Morality in its Relation to the Grace of the Gospel*.

Farrand, Harriet Augusta, author, born in Bridgeport, Vt., June 7, 1832; died in Chicago, Ill., May 19, 1899. At an early age she removed to Ypsilanti, Mich., and she was graduated at the Michigan State Normal School in 1857. She became known as a writer of short stories, and in 1870 joined the editorial staff of the *Advance*, in Chicago, of which journal she eventually became associate editor. Her published books include *The Moravian Indian Boy* (Philadelphia, 1868); *The Berry Pickers*; and *Little Hands*.

Fearn, John Walker, diplomatist, born in Huntsville, Ala., Jan. 13, 1832; died in Hot Springs, Va., April 8, 1899. He was graduated at Yale College in 1851, and two years later was admitted to the bar in Mobile. In 1854 he was appointed secretary of the United States legation in Brussels, and in 1856-'58 he held the similar post in Mexico. During the civil war he served the Confederacy in a diplomatic relation as well as in the army, where he attained the rank of lieutenant colonel on the staff of Gen. Joseph E. Johnston. After the war he practiced law in New Orleans till he was elected Professor of French, Spanish, and Italian in the University of Louisiana. In April, 1885, he was appointed minister to Greece, Roumania, and Servia, and in 1891 chief of the department of foreign affairs for the World's Columbian Exposition.

Ferrero, Edward, soldier, born in Granada, Spain, of Italian parents, Jan. 18, 1831; died in New York city, Dec. 11, 1899. He came to New York city with his parents in 1832. His father opened a dancing school, which became fashionable, and the son, succeeding him, became one of the most successful dancing masters of his day. He also taught his art at West Point. When the civil war began he became lieutenant colonel of the 11th New York Regiment. Soon afterward he raised "the Shepard Rifles"—the 51st New York Regiment—of which he became the colonel. He participated in Burnside's expedition to Roanoke island, commanded a brigade at Newbern, was in the Virginia campaign with Pope, and was a conspicuous figure at the battle of South Mountain. For bravery at Antietam he was made a brigadier general of volunteers, Sept. 19, 1862, and after participating in several other battles he was brevetted major general on Dec. 2, 1864. He served at Fredericksburg, Vicksburg, and Knoxville, and solely with a compass for a guide he led the 9th Corps to Cincinnati. When the famous mine was exploded in front of Petersburg Ferrero's colored division was selected to make the assault. The effort was what Grant had styled "a stupendous failure," and in his Memoirs he says it was "all due to inefficiency on the part of the corps commander and the incompetency of the division commander who was sent to lead the assault." A court of inquiry decided that the failure was due in part to Gen. Ferrero "for want of readiness for the assault, not going with his troops, but remaining in a bombproof." Gen. Ferrero was mustered out of service a few months later. After his retirement he returned to New York city, leased a building at Twenty-eighth Street and Broadway (now the site of the Fifth Avenue Theater), and converted it into a ballroom, which was known as Apollo Hall. In this hall were held balls and other social gatherings of the exclusive social set. In 1872 he gave up his lease and took the ballroom of Tammany Hall. He took charge of the Lenox Lyceum, Jan. 1, 1889, and retired in May, 1899. He was a member of the Loyal Legion and of the Grand Army of the Republic.

Field, Stephen Johnson, jurist, born in Hadam, Conn., Nov. 4, 1816; died in Washington, D. C., April 9, 1899. He was a grandson of Capt. Timothy Field of the Revolutionary army, a son of the Rev. Dr. David Dudley Field, and a brother of David Dudley, Cyrus West, and Henry Martyn Field. When thirteen years old he went with his sister and her husband, the Rev. Josiah Brewer, to the missionary station in Smyrna, and while living there he learned the Greek, Turkish, French, and Italian languages and took part in the relief work during an epidemic of cholera.

On his return he entered Williams College, where he was graduated in 1837. He studied law, was admitted to the bar in 1841, and for seven years was a partner in his brother's firm. In 1849 he sailed for San Francisco. On the passage from Panama nearly all the passengers were attacked with Chagres fever, and Mr. Field, applying the experience he had gained in Smyrna, acted as nurse and assistant surgeon. In San Francisco he opened a law office in an adobe hut, but clients came not. Hearing that a new town was about to be founded at Nye's Ranch, he went there, bought 66 lots on credit, and when the town of Yubaville was organized in January, 1850,

he was elected alcalde, and soon afterward was appointed justice of the peace. Yubaville became Marysville, and for some time Mr. Field was the entire government. At this time he was particularly severe on thieves, and, as he had no place to imprison them, his customary sentence was 50 lashes. The rough element undertook to terrorize him, but soon found that he was a man of exceptional courage, and, furthermore, that his administration was supported by the army. In the autumn of 1850 he was elected to the first Legislature under the State Constitution, and as a member of its Judiciary Committee he prepared a code for the government of the State courts, and drew up civil, criminal, and mining laws that were afterward generally adopted in the new States of the West. About this time, as a result of a bitter quarrel among leading men of the State, Mr. Field was disbarred by Judge Turner, but he was reinstated by the Supreme Court. While debarred from practice he lost all his fortune in speculations. In six years after his reinstatement, however, he built up a large and lucrative practice. In 1857 he was elected a justice of the Supreme Court of California for the term of six years beginning Jan. 1, 1858. Before his term began a vacancy in the court occurred, and he was appointed for the unexpired term by a governor politically opposed to him, taking the seat in October, 1857. Early in September, 1859, David S. Terry, chief justice of the court, resigned his place in order to fight the duel with Senator David C. Broderick which resulted in the killing of the latter, and Justice Field became chief justice. He held this office till 1863, when, Congress having created the Tenth Circuit, President Lincoln appointed him an associate justice of the United States Supreme Court. In providing for an additional member of this court it was the intention of Congress that the appointment should go to a person familiar with the conflicting titles and with the mining laws of the Pacific coast. As Judge Field had framed the principal of these laws, President Lincoln recognized the wish of the people immediately concerned for his appointment, and the Senate confirmed the nomination unanimously. In April, 1867, Justice Field tendered his resignation, to take effect on Dec. 1 following. He had thus held the office thirty-four years, six months, and twelve days, and when he retired he was the oldest member of the court both in age and in length of service. During this period he saw two whole courts come and go, and sat with

three chief justices. He alone had written 620 opinions in this court, which, with 57 in the Circuit Court and 365 in the Supreme Court of California, made a total of 1,042 cases decided by him. His career was replete with romance and exciting occurrences. In 1873 he was appointed by the Governor of California one of three commissioners to prepare amendments to the codes of the State. When, in 1877, Congress created the Electoral Commission it designated him as one of the five justices of the Supreme Court who should be members of it. In 1880 he was a conspicuous candidate for the Democratic presidential nomination. In 1888 he sentenced ex-Judge Terry to a brief imprisonment for attacking the court officers with a bowie knife in the course of a sensational trial (see *Annual Cyclopædia* for 1889, page 649, article TERRY). Terry swore vengeance, and on Aug. 14, 1889, made a personal assault on Judge Field in a railroad dining room at Lathrop, Cal., for which he was at once shot dead by United States Deputy-Marshal David Nagle, who, unknown to Judge Field, had been ordered to accompany him for protection against threatened assault. Judge Field received the degree of LL. D. from Williams College in 1864.

Field, Walbridge Abner, Chief Justice, born in Springfield, Vt., April 28, 1833; died in Boston, Mass., July 15, 1909. He was graduated at Dartmouth College in 1855, studied law at Harvard, and was admitted to the bar in 1860. From 1865 to 1869 he was assistant United States district attorney for Massachusetts, and in 1869-70 Assistant Attorney-General of the United States. He was representative from Massachusetts in Congress in 1876-77, but declined to be a candidate at the next election, and in February, 1881, was appointed to the supreme bench of Massachusetts, and in 1890 became Chief Justice.

Fisher, George Farnall, jurist, born in Milford, Del., Oct. 13, 1817; died in Washington, D. C., Feb. 11, 1899. He was graduated at Dickinson College in 1838, and in 1840 he was elected clerk of the Delaware Senate, in 1843 a member of the Legislature, and in 1846 Secretary of State of Delaware. He served as commissioner to settle claims against Brazil, and in 1857-'60 he was Attorney-General of Delaware. At the outbreak of the civil war he raised a regiment for the National army, but his election to Congress prevented him from taking the field. He served on the Committee on Foreign Affairs. In 1863 he was appointed an associate justice of the Supreme Court of the District of Columbia. In 1870 he resigned this office to become United States attorney for the District of Columbia. In 1875 he resigned the office, and, after service in the Claims Bureau of the State Department, he was appointed first auditor of the Treasury in 1889.

Flagg, Jared Bradley, painter and clergyman, born in New Haven, Conn., June 16, 1820; died in New York, Sept. 25, 1899. He was a brother of George Whiting Flagg, the painter, and studied with his brother and Washington Allston. When sixteen years old he made his first exhibition at the National Academy, a portrait of his father, and when nineteen he exhibited *Angelo and Isabella*, a study inspired by *Measure for Measure*. He opened his first studio in Hartford, Conn., and his second in New York, in 1849. In 1850 he was elected a National Academician. He made a specialty of portraits. He studied theology privately and at Trinity College, Hartford, and was ordained in the Protestant Episcopal Church in 1854. He served St. James's Church, Birmingham, Conn., as rector several

months, and Grace Church, Brooklyn, N. Y., eight years. In 1864 he withdrew from the ministry permanently, and afterward applied himself wholly to painting. His portraits include those of Chief-Justice Church and several of the judges of the New York Court of Appeals, now in the State Capitol; a life size of William M. Evarts, also in the Capitol; and several of Commodore Vanderbilt. He received the degree of S. T. D. from Columbia College in 1863. Dr. Flagg also painted Holy Thoughts and Paul before Felix, and was author of *The Life and Letters of Washington Allston*.

Flagler, Daniel Webster, military officer, born in Lockport, N. Y., June 24, 1835; died in Newport News, Va., March 29, 1899. He was graduated at West Point in 1861; was commissioned a brevet and full second lieutenant of ordnance, June 24 of that year; promoted first lieutenant, Aug. 3 following; captain, March 3, 1863; major, June 23, 1874; lieutenant colonel, Aug. 23, 1881; colonel, Sept. 15, 1890; and brigadier general and chief of ordnance, Jan. 23, 1891. During the civil war he was first employed in drilling volunteers in Washington; was then aide-de-camp to Gen. McDowell, charged with the defense of the national capital; and afterward served as chief of ordnance with Gen. Burnside's expedition to North Carolina, was with the Army of the Potomac in the Maryland campaign, and was on special inspection and ordnance duty. He took part in the battles of Bull Run, Roanoke Island, Newbern, Fort Macon, South Mountain, Antietam, Fredericksburg, Chancellorsville, and Gettysburg, and won brevets for gallantry at Antietam and Fort Macon and for distinguished services in the field and in the ordnance department throughout the war. After the war he was on duty at various arsenals till promoted to chief of ordnance, and thereafter he was stationed at Washington. The importance and value of his services during the war with Spain are best attested by the report of the commission that investigated the conduct of the War Department: "The testimony before the investigating commission shows that the ordnance department was untiring in its work, both before and during the war, and that every effort was made by its officers properly to arm and equip the troops. The delays that occurred were none of them of serious import, and it was beyond the power of the department to prevent them."

Fletcher, Thomas Clement, lawyer, born in Herculaneum, Mo., Jan. 21, 1827; died in Washington, D. C., March 25, 1899. His father was a merchant and a large slaveholder, but the son became an abolitionist in early youth. He received a common-school education, and from 1849 till 1856 held county clerkships by appointment and election. In the last year he removed to St. Louis, where he was admitted to the bar in 1857. He was commissioned colonel of the 31st Missouri Volunteers in the National army in 1862 and of the 47th Volunteers in 1864, and in the last year was also brevetted brigadier general of volunteers. During a part of 1863 he was confined in Libby Prison. He was Governor of Missouri in 1865-'68. In 1869 he resumed law practice, dividing his time between St. Louis and Washington till about ten years ago, when he settled permanently in Washington.

Flower, Roswell Pettibone, banker, born in Jefferson County, New York, Aug. 7, 1835; died in Eastport, Long Island, N. Y., May 12, 1899. He was one of nine children of Nathan M. Flower, a wool carder and cloth manufacturer, on whose death his widow undertook to carry on the busi-

ness with the aid of her sons. Roswell worked in the mill and on the farm, attending a district school till he was fourteen years old, and then became clerk in a local store. At the age of sixteen he was graduated at the village high school, and, after spending two years in teaching, went to work in a dry-goods store in Philadelphia, and soon afterward in a hardware store in Watertown, N. Y. A month after taking his last place he was appointed assistant postmaster, and during his six years' service he saved \$1,000 out of his salary of \$50 a month. With this capital he bought an interest in a jewelry store. Two years later he bought out his partner, and on an enlarged scale continued the business till 1869. In that year he removed to New York city to manage the interests of his brother-in-law, Henry Keep, who at his death had large railroad holdings and responsibilities. Flower proved himself an able financier, and acquired wealth rapidly. Before leaving Watertown he had organized the Jefferson County Democratic Committee. His success in politics attracted the attention of Samuel J. Tilden, whom he induced to promote the extension of the Jefferson County plan to the other county organizations. In 1877 Mr. Flower, as chairman of the Democratic State Committee, successfully managed the campaign. Four years later he and William W. Astor were candidates for Congress in a strongly Republican district, and Mr. Flower was elected. He declined a renomination. He was appointed president of the Subway Commission in 1886, and was re-elected to Congress in 1888 and 1890. In 1891 he was elected Governor of New York. From the close of his term till his death he applied himself to the interests of a large banking house that he had established and to a systematic course of philanthropy. His fortune was estimated at his death at about \$25,000,000, and in the last year of his life he was known to have given away \$1,000,000. With his brother Anson he erected a new edifice for Trinity Church, Watertown, at a cost of \$100,000; with his wife he presented St. Thomas's Church, New York city, with a combined Sunday school, industrial school, and library building that cost \$50,000. To the Homeopathic College of Physicians he gave the commodious and thoroughly equipped Flower Hospital. Mr. Flower received the degree of LL. D. from Lawrence University in 1893. (See GIFTS AND REQUESTS.)

Follett, David Lyman, jurist, born in Sherburne, N. Y., July 17, 1836; died in Norwich, N. Y., July 5, 1899. He was educated at Oneida Conference Seminary, studied law, and was admitted to the bar in 1858. From March, 1867, till May, 1873, when the office was abolished, he was assessor of internal revenue for the 13th District of New York. In 1874 he was nominated by the Republicans for justice of the Supreme Court, and was elected without opposition. He was similarly elected in 1888. In 1887 he was appointed a commissioner, with David Dudley Field and William Rumsey, to revise a proposed Code of Evidence; in 1892 he was designated an associate justice of the General Term of the 1st department; and in 1895 was appointed an associate justice of the 4th appellate division of the Supreme Court for the 6th Judicial District, which office he held at the time of his death. After his service in the 4th department of the General Term he was appointed an associate justice of the Court of Appeals to organize a second division, and by this court he was chosen Chief Justice.

Force, Manning Ferguson, lawyer, born in Washington, D. C., Dec. 17, 1824; died near San-

dusky, Ohio, May 8, 1899. He was a son of Peter Force, the historian, and was graduated at Harvard College in 1845 and at its law school in 1848. In 1861 he entered the National army as major of the 20th Ohio Volunteers, of which he was subsequently made lieutenant colonel and colonel. After taking part in the battles of Fort Donelson and Shiloh, Gen. Grant's campaign in southwestern Tennessee and his expedition into northern Mississippi, and the siege of Vicksburg, he was promoted brigadier general of volunteers, Aug. 11, 1863. Two years later, after serving with Gen. Sherman in his Atlanta campaign and the march to the sea, he was brevetted major general of volunteers. At the close of the war and on the recommendation of Gen. Sherman he was offered a colonelcy in the regular army, but declined it. From 1867 till 1877 he was judge of the Court of Common Pleas of Hamilton County, Ohio, and thence till 1887 judge of the Superior Court of Cincinnati. After leaving the bench he declined all public preferments, excepting the office of commandant of the Ohio Soldiers' Home, which he held at the time of his death. He edited Walker's Introduction to American Law (Boston, 1878) and Harris's Principles of Criminal Law (Cincinnati, 1880), and published From Fort Henry to Corinth (New York, 1881); Marching across Carolina (Cincinnati, 1883); and Personal Recollections of the Vicksburg Campaign (1885). His other publications include Prehistoric Man, Darwinism and Deity, The Mound Builders, Some Early Notices of Ohio Indians, To what Race did the Mound Builders Belong? Letters of Amerigo Vespucci, and Life of Justice John McLean. His last work, General Sherman, in The Great Commanders Series, was published after his death. The failure of his health had prevented the completion of the study, and at his request Gen. Jacob D. Cox finished it.

Ford, Daniel Sharp, publisher, born in Cambridge, Mass., April 5, 1822; died in Boston, Mass., Dec. 24, 1899. He learned the printer's trade, and was at one time a member of the firm of Olmstead & Ford, publishers and editors of the Baptist Weekly, then known as the Christian Watchman and Reflector. In 1857 the firm purchased the Youth's Companion, of which Mr. Ford shortly became the sole owner, continuing its publication under the firm name of Perry Mason & Co. He had keen business instincts, editorial ability, and high ideals, and the Companion became under his management one of the great publishing successes of the time. His editorial supervision was constantly exercised upon all the departments, but his name never appeared in its columns, and his many charitable and other gifts were made in so quiet a fashion that his name was never published in connection with them. He was a lifelong member of the Baptist denomination, and his philanthropic work was usually performed through its agency.

Foster, Cassius G., jurist, born in Webster, N. Y., Jan. 22, 1837; died in Topeka, Kan., June 21, 1899. He received a good education, studied law in Rochester, N. Y., and was admitted to the bar in 1859, and the same year settled in Atchison, Kan. In 1863-'64 he served in the State Senate, in 1867 was mayor of the city, and from March 10, 1874, till March, 1899, was judge of the United States District Court of Kansas. He was the founder and president of the Foster Humane Society.

Foster, Joseph Coggin, clergyman, born in Milford, N. H., April 11, 1818; died near Augusta, Ga., March 16, 1899. When sixteen years old he was apprenticed to the printer's trade in Am-

herst, N. H., and in the following year began studying for the ministry. He was graduated at the New Hampton (N. H.) Theological Institution in 1841, was ordained pastor of the Baptist Church in Brattleboro, Vt., in 1843, and in 1856 left that charge for the First Baptist Church in Beverly, where he remained till 1872. During the next nine years he held a pastorate in Randolph. For twenty-two years he never attended the meeting of the association to which his church belonged without being elected either clerk or moderator. He received the degree of D. D. from Central University, Iowa, in 1883. He was a constant writer for religious periodicals, was assistant editor of the Watchman in 1881-'90, and published Baptism and Communion, a tract that was widely distributed, and Responsibilities for Intemperance.

Fontenelle, Henry, Indian chief, born in what is now Bellevue, Neb., about 1819; died on the Omaha Indian reservation, Nebraska, in July, 1899. It is said that when Napoleon I was rising to power Francois, Marquis de Fontenelle left France and settled in New Orleans in company with others of the French nobility who sought protection in the United States. His son Lucien, then sixteen years old, ran away and joined the colony of French trappers and traders at St. Louis. Fascinated by stories of adventure in the Northwest, Lucien made his way to the trading post of the Hudson Bay Company, on the upper Missouri, and settled on the site of the present Bellevue. He speedily made friends with the Omaha Indians, was received into the tribe, and in 1815 married Me-um-ba-ne, daughter of the head chief. Of five children of this marriage, Henry and Logan became eminent in the early history of the West. The brothers were educated in a school where Kansas City now stands, till Henry fought a duel with a fellow-student and ran away through fear of punishment. After long roving he returned to Bellevue and became a trapper. Here he met Stephen Decatur, who had been educated for the priesthood, and who taught the young half-breed Latin and Greek. In dealing with the Indians Decatur represented the trading company and Fontenelle the Indians. Both men became exceedingly wealthy, and with Peter A. Sarpy exerted an influence that restrained the Omahas from attacking the whites. In 1840 Henry Fontenelle married Emily Whiteman, sister of the chief of the Pawnees. Soon after his marriage his brother Logan, who had become chief of all the Omahas, was killed in battle with the Sioux, and Henry was chosen head chief in his place. For more than half a century Henry had lived in the same house in the southeastern corner of the Omaha reservation. He was always friendly with the whites, a man of wide information, able to recite freely in the vernacular from the Greek and Latin writers, and a born commander. Ex-Secretary J. Sterling Morton pronounced him the most wonderful man he had ever seen.

French, Justus Clement, clergyman, born in Barre, Vt., May 3, 1832; died in Newark, N. J., Feb. 14, 1899. He was graduated at Williams College in 1853, completed the course at Union Theological Seminary, New York, in 1855, and was ordained a Congregational clergyman in 1857. For fourteen years he was pastor of the Central Congregational Church in Brooklyn. After spending a year in California, he occupied the pulpit of the Westminster Presbyterian Church, Brooklyn, for nearly six years. In 1879 he was called to the Park Presbyterian Church in Newark, where he remained until his death. He re-

ceived the degree of D. D. from Williams College in 1865. Dr. French was one of the earliest supporters of the Young People's Society of Christian Endeavor, and was elected president of the New Jersey societies six times successively.

Garland, Augustus Hill, lawyer, born in Covington, Tenn., June 11, 1832; died in Washington, D. C., Jan. 26, 1899. His parents removed to Hempstead County, Arkansas, in the year following his birth, and he was educated at St. Mary's and St. Joseph's Colleges in Lebanon and Bardstown, Ky. He studied law, taught school, and, after a post-graduate course at St. Joseph's, was admitted to the bar in Washington, Ark., in 1853. Three years later he settled in Little



Rock. Early in his political career he was a Whig. In 1860 he was a presidential elector on the Bell and Everett ticket, and in 1861 he was elected to the State convention that adopted the ordinance of secession as a pronounced opponent of national disruption. He made a strong fight for the maintenance of

the Union, but after the convention had passed the ordinance he acquiesced in the result. During the civil war he was a member of both the provisional and permanent Confederate Congresses. After the war he returned to law practice at Little Rock. He had been admitted to practice before the United States Supreme Court in 1860, and now undertook to resume that practice, but was not permitted to do so, as he had not taken the oath prescribed by Congress in 1862. He thereupon instituted a case in his own behalf to test the constitutionality of the act in so far as it required all attorneys and counselors before that court to take the oath. After a personal argument the question that he had raised was decided in his favor in December, 1867. In 1866 he was elected United States Senator for the term beginning March 4, 1867, but was not permitted to take his seat. He served a short time as acting Secretary of State of Arkansas in 1874, and the same year was elected Governor under the new Constitution. In January, 1876, he was again elected United States Senator, and this time was seated. He was re-elected in 1883, and served till March, 1885, when he was appointed Attorney-General of the United States. In 1889 he resumed practice. He was stricken with apoplexy while arguing a case before the Supreme Court, and died within ten minutes.

Geiger, Hezekiah Ruebush, educator, born in Greencastle, Pa., Jan. 10, 1820; died in Springfield, Ohio, July 18, 1899. In 1831 his father's family settled in Holmes County, Ohio. He was graduated at Pennsylvania College, Gettysburg, in 1846, and was at once elected Professor of Mathematics, Physics, and the Natural Sciences in the newly established Wittenberg College, at Springfield, Ohio, which chair he held until 1873, from which time he taught the natural sciences only. He traveled extensively for the purpose of making original investigations. In 1874 he visited the Rocky mountain districts, the Pacific

coast, and the Sandwich Islands. His Hawaiian trip resulted in the collection of important data of great scientific interest obtained by original surveys of the volcanic craters of the islands and other investigations. The incidents and results of this trip were published in an interesting volume. In 1882 he resigned his professorship, and in 1883 accepted a place on the United States Geological Survey, in charge of the Blue Ridge division. His investigations extended through Maryland, Virginia, and West Virginia. While engaged in this work "he advanced and proved, in opposition to all previous theories, the true theory of the geological construction of the entire Blue Ridge system, as now accepted and recognized by scientists and Government authorities." For several years he was editor of the Lutheran Evangelist and of an agricultural journal. Shortly after his removal to Springfield he was ordained to the office of the ministry in the Lutheran Church, and in 1869 he received the degree of Ph. D. from Pennsylvania College.

Gemünder, George, violin maker, born in Ingelfingen, Württemberg, April 13, 1816; died in Astoria, Long Island, N. Y., Jan. 15, 1899. He was one of three sons of a noted maker of violins. August (see obituary in Annual Cyclopædia for 1895) and George followed their father's trade, and Albert became equally famous as an organ builder. On the death of the father, in 1835, George studied and worked successively in Vienna, Munich, Presburg, and Strasburg, and, having become the equal of his masters in these cities, went to Vuillaume, the violin maker of Paris. There he won the regard of the master to such an extent that when, in 1845, Ole Bull took his wonderful "Gaspar di Salo" to Vuillaume to be repaired the latter, despite the protest of Ole Bull, placed the instrument in George's hands, declaring that his assistant could do the work better than himself. In 1847 George joined his two brothers in Springfield, Mass. In 1852 he established himself in New York city. While working with Vuillaume he became noted for reproducing the works of the old masters. In 1851 he sent to the London Exhibition several instruments in which he had imitated the work of Stradivarius, Guarnerius, and Nicholas Amati, and for them he received a special award. His greatest triumph in this line was his "Kaiser" violin, sent to the Vienna Exhibition in 1873. This was an imitation of a Guarnerius, but the jury of awards declared it to be an original instrument, on the ground that it was impossible to produce so fine a tone on a new instrument. George's workshop was visited by many great violinists, and not one failed to be deceived when a Gemünder imitation and an original instrument were placed before him for trial. After making the invariable mistake, Ole Bull declared that "no man in the world but Gemünder can do that." Mr. Gemünder published Progress in Violin Making (Astoria, 1881).

Gill, Joseph Pearson, civil engineer, born near Trenton, N. J., about 1820; died in New York city, Jan. 9, 1899. He entered the navy and became an assistant paymaster. When the Mexican War broke out he was on duty at Hawaii, whence he was ordered to the frigate Savannah, on which he took part in the occupation of Monterey. He made a close study of mathematics and engineering, and attained a proficiency therein which made him an invaluable officer, as professional engineers were then unknown in the service. At the close of the war he resigned. After a course of advanced study in Philadelphia, he established himself as a civil engineer,

and till within recent years was engaged in the construction of railroads and gas works in the Eastern, Middle, and Southern States. Mr. Gill wrote monographs on subjects pertaining to his profession.

Goddling, William Whitney, alienist, born in Winchendon, Mass., May 5, 1831; died in Washington, D. C., May 6, 1899. He was graduated at Dartmouth College in 1854 and at Castleton Medical College in 1857. He was appointed assistant at the New Hampshire Asylum for the Insane in 1859, and in 1862 resigned to engage in general practice in Fitchburg, Mass. In 1863 he became assistant physician at the Government Hospital for the Insane, in Washington, in 1870 he was made superintendent of the Massachusetts Hospital, at Taunton, and since 1877 had occupied the similar post at the Government Hospital.

Goesbriand, Louis de, clergyman, born in St. Urbain, France, Aug. 4, 1816; died in Burlington, Vt., Nov. 3, 1899. He was ordained to the priesthood in Paris, July 13, 1840, and went to Cincinnati, where he remained seven years. On the erection of the diocese of Cleveland, he was made vicar general and rector of Bishop Rappe's cathedral. In 1853 he was ordained bishop and assigned to the newly erected see of Burlington, Vt. He was installed on Nov. 6, 1853, and began the work of building up a diocese with great zeal. In 1858 he attended the session of the Vatican Council at Rome, and he again visited the Pope in June, 1893, at which time he was presented by the Pope with a link from the chain of St. Peter.

Gosman, Abraham, clergyman, born in Danby, N. Y., July 25, 1819; died in Lawrenceville, N. J., Jan. 5, 1899. He was graduated at Williams College in 1843 and at Princeton Theological Seminary in 1847, was instructor in Hebrew at the seminary in 1850-'51, and was pastor of the Presbyterian Church at Lawrenceville from 1851 till 1865, when he became pastor emeritus. He received the degree of D. D. from Princeton in 1862. Dr. Gosman was selected to complete *The History of the Israelitish Nation from Samuel to the Babylonish Captivity*, left unfinished by Dr. Archibald Alexander, and he partly translated and edited *Genesis and Numbers*, and entirely, with a special introduction, *Deuteronomy* in the American edition of *Lange's Commentaries*.

Gray, Joshua, inventor, born in Sheffield, Vt., May 4, 1824; died in Medford, Mass., June 25, 1899. He received a public-school education, and when eighteen years old went to work in the Manchester (N. H.) Locomotive Works. While there he invented a system of quick-steaming boiler tubes, which was adopted by the concern, and also supervised the construction of the first locomotive built wholly by it. Subsequently he served many years in the construction department of other locomotive plants. Among his inventions were the rubber-tipped lead pencil, a breech-loading magazine rifle, a sewing machine shuttle, a railroad signal, and a seven-armature dynamo. At the time of his death he was perfecting plans for a new electric car carrying a dynamo on the roof, and was also engaged on a magnetized car wheel. His inventions yielded him handsome returns.

Greathouse, Clarence B., lawyer and editor, born near Versailles, Ky., in September, 1845; died in Seoul, Korea, Oct. 21, 1899. He was graduated at Bethany College, Virginia, studied law, was admitted to the bar, and became a member of the firm of Porter & Greathouse, the senior partner being at that time Governor of Kentucky. He served a term as county attorney of Wood-

ford County, and later was one of the founders of the Woodford Weekly. In 1870 he removed to San Francisco, where for several years he practiced law. He was one of the founders and, from 1880 till 1885, editor of the *San Francisco Examiner*. In 1886 he was appointed consul general at Yokohama, Japan. During his service there he became acquainted with Ni-Kung, King of Korea, to whom he gave much advice. His good address so pleased the King that he asked him to accept the newly created office of *Ho-Pang*, or Prime Minister. Mr. Greathouse resigned the consulate and accepted the premiership in 1890, and went to Seoul to live. His career in Korea was one of constant excitement. During the disturbances in 1894, which ended in the assassination of the Queen, he was appointed to investigate the murder, and he caused the arrest of several of the murderers, who were adjudged guilty and beheaded. Later he detected and frustrated a plot to kill the King, the Prime Minister, and the chief notables of the court. He held the office of adviser to the King till his death. He was the author of a volume of Korean tales.

Greene, George Sears, soldier, born in Warwick, R. I., May 6, 1801; died in Morristown, N. J., Jan. 28, 1899. He was descended from John Greene, who came from Salisbury, England, in 1635, and settled in Warwick ten years later. George was graduated at West Point, second in his class, in 1823; was made second lieutenant, 3d Artillery, July 1; was promoted first lieutenant, May 31, 1829; and resigned, June 30, 1836. In the course of his regular army service he performed garrison duty and was an instructor in mathematics at the Military Academy. On leaving the army he established himself as a civil engineer, and for twenty years was engaged in railroad construction. His high reputation as a builder of extensive engineering works led to his employment by the Croton Aqueduct Department of New York city in 1856, and while so engaged he designed and built the reservoir in Central Park, the enlargement of High Bridge, and a new reservoir near it. In January, 1862, he was commissioned colonel of the 60th New York Infantry, and on April 28 following was appointed a brigadier general of volunteers. He commanded his brigade in the battles of Cedar Mountain and Chancellorsville, and in the intermediate battle of Antietam he commanded the 2d Division of the 12th Corps. At Gettysburg, on the night of July 2, 1863, he performed a most important service by holding the right wing of the Army of the Potomac at Culp's Hill, with a part of his brigade, against more than a division of Confederate troops, thereby averting the disastrous effects of a turning of the wing. In September, 1863, he was transferred to the West, and on Oct. 28, in a night engagement near Chattanooga, he received a wound in the jaw that disabled him till January, 1865. He then rejoined Gen. Sherman's army in North Carolina and took part in the operations leading to the surrender of Gen. Johnston. On March 13, 1865, he was brevetted major general of volunteers for his services during the war, and on April 30, 1866, he was mustered out of the volunteer service. In 1894 Congress, in recognition of his military services and also of the fact that he was then the oldest living graduate of the Military Academy, authorized his reappointment to the regular army with the rank of a first lieutenant of artillery. The appointment was made on Aug. 2, and on the 11th he was placed on the retired list. After the civil war he resumed professional work. He was chief engineer and commissioner of the

Croton Aqueduct Department in 1867-'71, and chief engineer of public works in Washington, D. C., where he designed the elaborate plans for sewerage the city in 1871-'73. Gen. Greene had been president of the American Society of Civil Engineers and of the New York Genealogical and Biographical Society. He was the father of George Sears Greene, Jr., who became engineer in chief of the Department of Docks of New York city; Samuel Dana Greene, U. S. N., who fired all the shots of the Monitor in its fight with the Merrimac till he succeeded Lieut. Worden in command; and Francis Vinton Greene, major-general of United States volunteers in the war against Spain.

Gronlund, Laurence, socialist, born in Copenhagen, Denmark, July 13, 1840; died in New York city, Oct. 15, 1899. He was graduated at the University of Copenhagen in 1865, was imbued with the doctrines of socialism, and became a lecturer on that subject, first in his native city and later in London. About 1874 he went to New York city and identified himself with the Socialist-Labor party, soon becoming a member of its National Executive Board. Ten years later he withdrew from the active work of the party and lectured on the Pacific coast. He accepted an appointment in the office of Carroll D. Wright, Commissioner of Labor Statistics, in Washington, D. C. Here he performed valuable public service, but incurred the enmity of his former associates by having accepted a public office. For more than a year prior to his death he was engaged in journalism in Chicago and New York. Besides many magazine articles and an unfinished book treating of government, he was author of *The Co-operative Commonwealth*; *Ca Ira*; or, *Danton in the French Revolution*; *Our Destiny*; *Socialism and the Single Tax*; and *The New Economy* (1898).

Guillon, Charles F., physician, born in Philadelphia, Pa., July 26, 1813; died in New York city, Jan. 1, 1899. He was appointed an assistant surgeon in the navy when twenty years old, and after short cruises was assigned as surgeon to the sloop of war *Peacock*, commanded by Capt. William L. Hudson, in the Wilkes exploring expedition to arctic seas. The sloop was wrecked on the bar at the mouth of Columbia river. Dr. Guillon served through the Mexican War, and at its close made an extended cruise in Asiatic waters as surgeon of the *Columbus*. He was afterward assigned to the frigate *Constitution*, of the Mediterranean squadron. Returning from this cruise, Surgeon Guillon was assigned to the Brooklyn Navy Yard, where he remained till 1854, when he resigned his commission to take the superintendence of a large hospital in Honolulu. He remained in Hawaii till 1867, acting for some time as Italian consul at Honolulu and as court physician.

Hale, Edwin Moses, physician, born in Newport, N. H., Feb. 2, 1820; died in Chicago, Ill., Jan. 15, 1899. He was a nephew of Sarah Josepha Hale, the author. After following the printer's trade several years, he was graduated at the Homeopathic Medical College, Cleveland, in 1859. For twelve years he was in practice in Jonesville, Mich. In 1863 he became Professor of *Materia Medica and Therapeutics* in Hahnemann Medical College, Chicago, and in 1880-'84 he held the same chair in Chicago Homeopathic College, in the last year becoming professor emeritus. Dr. Hale edited the *North American Homeopathic Journal* in 1868, and, besides many monographs, published *New Remedies* (2 vols., New York, 1867); *Pocket Manual of Domestic Prac-*

tice (1870); *Lectures on Diseases of the Heart* (1871); and *Diseases of Women* (1875).

Halm, George B., artist, born in Ogdensburg, N. Y., Sept. 1, 1850; died in New York city, May 2, 1899. He first became an engraver on wood, and after working in Boston both as engraver and artist he joined the staff of Frank Leslie's publishing house in 1873. Subsequently he was for several years in charge of the art department of the Orange Judd Company. In later years he made a specialty of decorative work, allegorical illustration, and cover designing. He founded the artistic publication *Art and Decoration*, and designed the peculiar style of letter bearing his name that was adopted by De Vinne.

Hardcastle, Edmund La Fayette, military officer, born in Denton, Md., Oct. 18, 1824; died near Towson, Md., Aug. 11, 1899. He was graduated in 1846 at West Point, entered the army as a brevet second lieutenant of engineers, was first ordered on coast-survey duty, and was sent to Mexico at the beginning of the war there. He took part in the siege of Vera Cruz, the battle of Cerro Gordo, the capture of San Antonio, the battles of Contreras, Churubusco, Chapultepec, and Molino del Rey, and the assault and capture of the city of Mexico. For gallantry at Contreras and Churubusco he was brevetted first lieutenant, Aug. 20, 1847, and for signal courage at Molino del Rey he was brevetted captain, Sept. 8. In 1849-'52 he served on the commission to run the new boundary line between the United States and Mexico, and from 1852 till his resignation, April 30, 1856, he was engineer secretary to the Lighthouse Board. After leaving the army he retired to a farm in Talbot County, Maryland, where he passed the remainder of his life. He served in the Maryland Legislature in 1870-'78, was a delegate to several national Democratic conventions, and at one time was president of the Maryland and Delaware Railroad Company.

Harding, Benjamin F., lawyer, born in Wyoming County, Pennsylvania, Jan. 4, 1823; died in Cottage Grove, Ore., June 18, 1899. He received a public-school education, was admitted to the bar in 1847, and settled in Oregon in 1849. In 1850, 1851, and 1852 he was elected to the Territorial Legislature, of which he was Speaker in his last term, and in 1853 he was appointed United States district attorney for the Territory. From 1854 till 1859 he was secretary of the Territory. From 1859 till 1862 he was a member of the State House of Representatives, and in the two last years was its Speaker. In 1862 he was elected United States Senator, and he served as such till March 3, 1865.

Harlan, James, jurist, born in Clarke County, Illinois, Aug. 25, 1820; died in Mount Pleasant, Iowa, Oct. 5, 1899. He was graduated at Indiana Asbury University in 1845, having paid his way through the course by working on a farm, and studied law. In 1847 he was elected State Superintendent of Public Instruction as a Whig; in 1850 was nominated by that party for Governor, but was too young to accept; and in 1853 was elected president of Iowa Wesleyan University. Two years later he was elected United States Senator, and after he had served till January, 1857, his seat was declared vacant on a technicality. Five days after the declaration the Legislature re-elected him for the term ending in 1861, and at its close returned him. In 1865 he resigned his seat in the Senate to become Secretary of the Interior. In 1866 he resigned this office and again entered the Senate. At the end of this term he was defeated for re-election by William B. Allison. On the expiration of his last

term he became editor of the Washington Chronicle, and in 1882-'85 he was presiding judge of the Court of Commissioners of Alabama Claims.

Harrington, Nathan Russell, zoölogist, born in Somerville, Mass., Dec. 22, 1870; died in Atbara, Soudan, Africa, July 26, 1899. He was graduated at Williams College in 1893, and then spent four years at Columbia College as student, assistant, and fellow. He spent his summers either at the zoölogical station at Wood's Holl or on the expeditions of the department of zoölogy to Puget Sound, Alaska, and Africa. In the summer of 1898 Mr. Harrington, then fellow in zoölogy in Columbia, and Dr. Reid Hunt, tutor in physiology, spent considerable time on the lower Nile securing material for the study of the African polypteris. They returned with many specimens of this fish, but were unsuccessful in securing its eggs, as the Nile rose rapidly before the fish had spawned. In the spring of 1899 a second expedition was organized to secure the desired material in the region of the White Nile. The possibility of this expedition was largely due to a gift of \$5,000 by Charles H. Senff, of New York. On account of the Mahdi disturbances, the party had considerable difficulty in obtaining permission to enter the Soudan, but success seemed assured when Mr. Harrington was stricken with fever.

Harris, Frederick Henry, lawyer, born in Newark, N. J., March 7, 1830; died in Montclair, N. J., March 16, 1899. He was educated in Newark and Bloomfield, and was associated with his father in the quarry business till his admission to the bar, in 1862. In the autumn of that year he went to the field as a captain in the 13th New Jersey Regiment. He took part in the march to the sea, and commanded his regiment through the North Carolina campaign. For bravery on the field he was promoted major and lieutenant colonel and brevetted colonel, and for conspicuous gallantry in the battle of Bentonville, March 19, 1865, he was promoted brigadier general. From that time till his death he was engaged in the fire insurance business in Newark.

Harris, Houghton D., lawyer, born in Chesterfield, N. H., Aug. 16, 1822; died in Brattleboro, Vt., Jan. 19, 1899. He was graduated at Dartmouth College in 1841, and while studying law engaged in journalism. For a year he edited the Vermont Phoenix, and in 1847, with William B. Hale, established the Eagle. In the autumn of 1850 he was appointed the Secretary of the new Territory of Utah, of which Brigham Young was Governor. A bitter antagonism soon developed between the two officials. Gov. Young and the Legislature persisted in disregarding the provisions of the enabling act, and the trouble reached a point where Secretary Harris refused to disburse the money placed in his hands by the United States Government for the benefit of the Territory. At this juncture the Legislature passed resolutions directing the Secretary to deliver immediately all Federal money in his possession to the United States marshal of Utah, who was a Mormon. Amid threats of assassination Secretary Harris refused, and, avoiding arrest, hastened to Washington and turned into the Treasury all the funds in his care. The Mormon leaders protested against this act, but the Administration approved it, and, realizing that his life would not be safe in Utah, offered Mr. Harris the post of Secretary and acting Governor of the Territory of New Mexico, which he declined. He returned to Vermont, was elected to the State Senate in 1860 and 1861, and was engaged for many years in railroad building.

Harris, Robert P., horticulturist, born in 1823; died in Philadelphia, Pa., Feb. 2, 1899. He spent large sums for the importation and distribution of seeds, principally of melons and cucumbers, which he sent to almost every State for experimental purposes. One of his ambitions was to cultivate in this country the cucumbers eaten by the children of Israel in the Holy Land. He was a prolific medical writer, and edited textbooks on medicine.

Harris, Samuel, educator and clergyman, born in East Machias, Me., June 14, 1814; died in Litchfield, Conn., June 25, 1899. He was graduated at Bowdoin College in 1833 and at Andover Theological Seminary in 1836. He engaged in teaching until 1839, and was pastor successively of Congregational churches at Conway and Pittsfield, Mass. From 1855 to 1867 he was Professor of Systematic Theology in Bangor Seminary, and from 1867 to 1871 president of Bowdoin College. In the latter year he became Professor of Systematic Theology at Yale, and he was professor emeritus at the time of his death. He was the author of *Zaccheus: The Scriptural Plan of Beneficence* (1844); *Christ's Prayer for the Death of his Redeemed* (1863); *The Kingdom of Christ on Earth* (1874); *The Philosophical Basis of Theism* (1883); and *Self-revelation of God* (1887).

Hartley, Isaac Smithson, clergyman, born in New York city in 1830; died in Great Barrington, Mass., July 2, 1899. He was graduated at New York University in 1852 and at Andover Theological Seminary in 1856, spent several years in special study in Europe, and returned to the United States in time to perform a considerable service for the National soldiers under the auspices of the Sanitary Commission. He became pastor of the Reformed Church in Utica, N. Y., in 1871, and became widely known as a lecturer. About seven years ago he was ordained in the Protestant Episcopal Church, and became rector of St. James's Church in Great Barrington, Mass. Dr. Hartley was the founder of the Vetter lectureship at Rutgers College, New Brunswick, N. J. His publications include *Prayer and its Relation to Modern Thought*, a *History of the Reformed Church and Fort Schuyler in History*.

Haslam, Maud (Mrs. Samuel Groome), actress, born in St. Louis, Mo., in 1869; died in Liberty, N. Y., Feb. 24, 1899. She was a daughter of Alice Sherwood, a well-known actress, made her *début* as a child of three in the part of Little Fritz with Joseph Emmet, and for several years was identified with children's parts in the Olympic Theater, St. Louis. Her parents sent her to Clifton Convent, Canada, and to Mount St. Vincent, New York, from which last named she was graduated with high honors in 1883. After a year spent in rest and travel in Europe, she made her New York *début* with the Madison Square Theater company, Jan. 5, 1885, as Edith in *The Private Secretary*. She was received with great favor, and in the following season received the part of Rachel McCreery in *Held by the Enemy*, with which she began a tour, appearing first at the Grand Opera House, New York city, Oct. 21, 1889. In September, 1890, she was a member of the stock company at Proctor's Twenty-third Street Theater, and began her work there in the part of Fiji Oritanski in *All the Comforts of Home*. She played the juvenile rôles in all the important productions of this company for a season, and then became leading lady in the support of Nat Goodwin. On the first production of *Too Much Johnson* by William Gillette Miss Haslam played the leading female rôle, and she remained in that position with that popular star

until obliged by illness to resign from the company, in London, in 1898. A short period of illusive health allowed her to return to the stage in September, 1898, when she appeared for the last time as Tony Tostevin in *The Marquis of Michigan*, in Washington, D. C.

Hastings, Horace L., editor, born in Watertown, Mass., Nov. 26, 1831; died in Goshen, Mass., Oct. 21, 1899. For more than thirty years he was editor of *The Christian*, and he was also the author of a large number of papers, tracts, pamphlets, and books published under the general title of the *Anti-infdel Library*. Of this series his best-known work was *The Inspiration of the Bible*; or, *Will the Old Books Stand?* of which an exceedingly large number was distributed in all parts of the world. He was also the author of the familiar hymn beginning, "Shall we meet beyond the river?" In 1888 he created considerable commotion by preaching on Boston Common in violation of a city ordinance, which required him to procure a license. For so doing he was fined and imprisoned. The incident caused an agitation which resulted in an overturning of the city government.

Hawkins, Alexander Leroy, soldier, born in East Bethlehem, Pa., Sept. 6, 1843; died at sea, near Yokohama, Japan, July 18, 1899. He worked on a farm till fifteen years old, and was a student at Waynesburg College from 1860 till Aug. 7, 1862, when he enlisted in the 15th Pennsylvania Cavalry. He participated in the battle of Antietam, Sept. 17, 1862, after which his command was transferred to the Army of the Cumberland. In September, 1864, he was promoted to captain, and in December he won high praise for his conduct in the battle of Nashville. In June, 1865, he was appointed an aid on the staff of Gen. Clinton B. Fisk, and as an agent of the Freedmen's Bureau he remained in the service till Jan. 21, 1866. He then returned to Pittsburgh and engaged in the drug business two years, after which he bought a farm in Beallsville, Pa., and became a dealer in wool and live stock. In 1875 he was elected treasurer of Washington County, serving till 1878. He entered the 10th Regiment, National Guard of Pennsylvania, Jan. 1, 1877, as captain, and served during the Pittsburgh riots of July and August of that year. On Feb. 27, 1879, he was commissioned colonel of that regiment, and he served as such till he was mustered into the United States service, May 12, 1898. His command in the National Guard constituted part of the State forces sent to quell the riots at Morewood, Pa., in 1891, and at Homestead in 1892. The 10th Pennsylvania Volunteers took part in some of the most important engagements in the Philippines. On July 31 and Aug. 1, 1898, they were engaged in the night attack on Malate; on Feb. 4, 1899, participated in the repulse of the Filipino attack on the American defenses at Manila; and on March 29 they were led into a trap at Guiguinto Bridge and sustained a raking fire forty minutes. Gen. Hawkins left Manila Bay with his regiment, July 1, 1899, on its return to the United States, and died at sea as the result of cancer.

Hayden, Edward Simeon, inventor, born in Waterbury, Conn., in 1852; died in New York city, Feb. 14, 1899. For several years he was secretary and assistant treasurer of the Holmes, Booth & Hayden Brothers Co., of Waterbury and New York, and after resigning from that company he settled in Bridgeport. There he invented and perfected the system of separating precious metals from copper that now bears his name and is in use in many refining works.

Hayden, Henry Rogers, journalist, born in Seneca Falls, N. Y., Nov. 23, 1836; died in East Hartford, Conn., March 2, 1899. In early life he removed to Wisconsin, where he learned the printer's trade. He was successively local and city editor of the *Sparta Democrat*, the *Sparta Herald*, and the *Daily Sentinel* of Milwaukee. In 1868 he became editor of the *American Churchman*, published under the supervision of the Protestant Episcopal diocese of Mississippi, in 1873 founded the *Insurance Journal* in Hartford, and in 1880 became part owner and editor of the *Weekly Underwriter* in New York city. Besides editorial writings on insurance topics, he published *The Cyclopædia of Insurance*, *Fire and Marine Insurance Statistics*, and *Statutory Requirements: An Abstract of Insurance Laws*. Mr. Hayden was president of the Connecticut Horticultural Society.

Hayley, Herman Wadsworth, educator, born in West Concord, N. H., in 1864; died in Boston, Mass., Sept. 24-25, 1899. He was graduated at Amherst College in 1887, continued his studies abroad, and, after a post-graduate course at Harvard, received the degree of Ph. D. His unusual brilliancy as a scholar, his success as an instructor, and his great popularity with the students led to his retention at Harvard as an instructor in Latin. About two and a half years ago he became a member of the faculty of Wesleyan University. His published works include *Alcestis*, a Greek play.

Haynes, Lorenza, preacher, born in Waltham, Mass., April 15, 1820; died there, June 6, 1899. She was a teacher in Lonsdale, R. I., and in Leicester and Lowell, Mass., and in 1854 she opened a private school in Rochester, N. Y., and in 1856-'60 was principal of a young ladies' seminary there. Impaired health forced a retirement of four years, after which she served six years as librarian of Waltham (Mass.) Public Library. During this period she became intimate with the Rev. Olympia Brown and Mrs. Mary A. Livermore, and in 1872, after retiring from the library, she entered St. Lawrence University, Canton, N. Y., and before completing the course there was called to the pastorate of the Universalist Church in Hallowell, Me. She delivered her first sermon as pastor on July 26, 1874. While occupying this place she officiated as chaplain in both houses of the Legislature and also in the Soldiers' Home in Togus. In 1876 she went to the Marlboro (Mass.) Church, and afterward she held pastorates in Fairfield and Skowhegan, Me., and Rockport and Pigeon Cove, Mass.

Hayward, Monroe Leland, lawyer, born in Sillsboro, N. Y., Dec. 22, 1840; died in Nebraska City, Neb., Dec. 5, 1899. At the outbreak of the civil war he enlisted in the 22d New York Infantry; he was transferred to the 5th Cavalry, and in December, 1862, was discharged on account of disability. He then entered the Collegiate Institute at Fort Edward, where he was graduated in 1866. He went to Whitewater, Wis., studied law, and was admitted to the bar. In 1867 he settled in Nebraska City. In 1873 he was a member of the State Constitutional Convention. In 1886 he was appointed to fill an unexpired term on the district court bench. He was the Republican candidate for Governor in 1898, but was defeated, although he succeeded in reducing a fusion majority of 18,000 to 3,000. On March 8, 1899, he was elected to the Senate of the United States after a long struggle in the caucus of his party, and on Aug. 15 following he was stricken with apoplexy as he was about to address the Modern Woodmen at Brownville, Neb.

Hein, John, philanthropist, born in Kissingen, Bavaria, March 11, 1818; died in New York city in June, 1899. He learned the tinsmith's trade, came to the United States in 1850, and carried on the business in Brooklyn till about 1880, when he retired. During the last period he accumulated \$60,000. He was a cripple almost from birth, scarcely a day of his life passing without much pain, and after his retirement he devoted his means and time to the relief of suffering among his countrymen. He gave to the German hospitals in the boroughs of Brooklyn and Manhattan an aggregate of \$45,000, and bequeathed the remainder of his fortune to those institutions.

Henderson, Graham, actor, born in Cincinnati, Ohio, in 1858; died in New York city, Oct. 13, 1899. He made his first appearance in Davy Crockett with Frank Mayo, and for about ten years was a player of small parts in the stock companies of Cincinnati and Louisville. In 1880 he played in Bartley Campbell's Galley Slave at Niblo's Garden, New York, and was engaged by Mr. McKee Rankin for The Danites, with which he traveled for a season. He had become a valuable player of character parts and old men, and was engaged for the Union Square Theater, where he remained for a season. From 1882 to 1890 he appeared successively in the company of Frank Mordaunt, playing Old Shipmates, 1882-'83; in Queen's Evidence, 1884-'85; with Mlle. Aimée in Marita, 1885-'86; in Mr. Barnes of New York, 1887-'88; and in Dr. Bill, 1889-'90. In 1894 he became a member of the company supporting John Drew, with which he played until illness compelled him to retire.

Hendley, John Walter, scientific modeler, born in Virginia in 1827; died in Washington, D. C., July 3, 1899. He served in the American navy on the flagship Ohio in the war with Mexico, and afterward engaged in gold mining in California with considerable success. During the civil war he served in the Confederate army. From boyhood he had shown remarkable skill in painting and modeling flowers, fishes, birds, etc., in wax, and after his return from California the exactness of his imitations of natural productions called official attention to his work, and he was encouraged to exercise his skill in other directions. In 1868 he took the first prize at an exposition in London for a group of seven figures of fishermen, and at the Centennial Exposition in Philadelphia, in 1876, his exhibit was similarly rewarded. In 1878 he entered the service of the Federal Government at Washington, and he had since been employed in the Smithsonian Institution and the National Museum in modeling imitations of fishes, fruit, birds, and other objects. Much of his work is so realistic that it is difficult to distinguish it from the natural specimens.

Henry, Guy Vernor, soldier, born in Fort Smith, Indian Territory, March 9, 1839; died in New York city, Oct. 27, 1899. At the time of his birth his father, Major William S. Henry, of the 3d United States Infantry, was fighting the Indians on the Western frontier. Young Henry was graduated at West Point in 1861, and was assigned as second lieutenant to the 1st Artillery. He served with distinction in that regiment until he was made colonel of the 40th Massachusetts Infantry in the autumn of 1863. At the battle of Pocotaligo, S. C., Oct. 22, 1862, the attention of the commanding general was called "to the gallant and distinguished services of First Lieut. Guy V. Henry," and he was brevetted captain. He served in the Army of the James and before Petersburg. He was brevetted lieutenant colonel on Sept. 29, 1864. For his work in the campaign

in Florida he was complimented by Gen. Seymour in the following words: "I can not commend too highly the brilliant success of this advance, for which great credit is due Col. Guy V. Henry and his command, and I earnestly recommend him as a most deserving and energetic officer." At the close of the civil war he was brevetted a colonel in the regular army and brigadier general of volunteers. In the Indian troubles of the seventies he saw hard service. His left hand was badly frozen when he was on an expedition to the Black Hills in the winter of 1874-'75, and he was wounded in the face, losing an eye, in the battle of Rosebud Creek, Montana, in 1876. In the expedition against the Sioux Indians in 1876, in the Big Horn and Yellowstone country, he was colonel of the second battalion of the 3d Cavalry, which formed part of Gen. Crook's command. He made a notable march with a detachment of the 9th Cavalry to the relief of the Pine Ridge agency after the bloody conflict between hostile Sioux and the 7th Cavalry at Wounded Knee Creek, Dec. 29, 1890. He was promoted lieutenant colonel of the 7th Cavalry on Jan. 30, 1892, and placed in command of Fort Myer, Virginia. He became colonel of the 10th Cavalry on June 1, 1897. On May 4, 1898, he was made brigadier general of volunteers, and in October, 1898, was promoted to brigadier general in the regular army. On Dec. 7, 1898, he was made major general of volunteers. In the war with Spain he went to Cuba, arriving in time to participate in the final scenes before the surrender of Santiago. He afterward went with Gen. Miles to Puerto Rico. In December, 1898, he relinquished command of the district of Ponce to assume command of the Department of Puerto Rico and the duties of Governor General of the island of Puerto Rico. In April, 1899, he asked to be relieved of the duties of Governor General of the island on account of failing health, and in May returned to the United States. From that time he was in Washington awaiting orders, until he was assigned to the command of the Department of Missouri, with headquarters at Omaha, Oct. 18, 1899. He was the author of Records of Civilian Appointments, United States Army, Army Catechism for Noncommissioned Officers and Soldiers, Target Practice and Practical Information for Noncommissioned Officers on Field Duty.

Heth, Henry (commonly called Harry), soldier, born in Black Heath, Chesterfield Co., Va., Dec. 16, 1825; died in Washington, D. C., Sept. 27, 1899. After graduation at West Point in 1847 he was made second lieutenant in the 6th Infantry, and served in the war with Mexico. Subsequently he served on the frontier, and was promoted to captain in the 10th Infantry, March 3, 1855. At the beginning of the civil war he resigned and accepted a major's commission in the Confederate service. On July 17, 1861, he became colonel of the 45th Virginia Infantry. He was made brigadier general on Jan. 6, 1862, and during that year commanded the Department of West Virginia. Later he served in Kentucky and Tennessee under Gen. Kirby Smith. Early



in 1863 he joined the Army of Northern Virginia, and from Chancellorsville to Appomattox he participated in all the battles of that army, receiving on May 24, 1863, his commission as major general. On the death of Gen. A. P. Hill, near the close of the war, Heth succeeded to his command. After the surrender he engaged in mining in Virginia; but that proved unsuccessful, and he was for a time in business in Richmond and then in Baltimore. Later he made Washington his home, and received the appointment of Indian Commissioner for Washington Territory.

Hilton, Henry, jurist, born in Newburg, N. Y., Oct. 4, 1824; died in Saratoga, N. Y., Aug. 24, 1899. He was admitted to the bar in 1846, began practice in New York city, was elected judge of the Court of Common Pleas in 1857, and on the expiration of his term formed a partnership with Douglas Campbell and Joseph Bell. In 1869-'72 he was president of the department of parks. While judge he edited two volumes known as *Hilton's Reports*. Judge Hilton was best known because of his intimate connection with the late Alexander T. Stewart. This relationship began about 1869, and continued till Mr. Stewart's death in 1876. Mr. Stewart and Mrs. Hilton were cousins, and Mr. Hilton became Mr. Stewart's legal adviser and most intimate friend and associate before he was elected judge. Mr. Stewart appointed Mr. Hilton one of his executors, and bequeathed him \$1,000,000. A few days after Mr. Stewart's death his widow sold all her interest in the estate to Judge Hilton for \$1,000,000 and "other good and valuable considerations." It was understood that Judge Hilton was to carry out Mr. Stewart's charitable intentions, with which he was familiar. Besides a large fortune, Mr. Stewart left a large and prosperous business, and Judge Hilton organized a firm to carry it on; but the venture proved a steady loss, and in 1883 the firm went into voluntary liquidation. The sales had then fallen to about \$3,280,000. For several years thereafter various firms undertook to conduct the business, but none succeeded, and ultimately the establishment passed into the hands of John Wanamaker, of Philadelphia. Judge Hilton occupied a large share of public attention in 1877, when he issued an order prohibiting the reception of Jews as guests at the Grand Union Hotel, Saratoga, which was built by Mr. Stewart; and again, for a longer period, after the mysterious theft of Mr. Stewart's remains from the grave in St. Mark's churchyard, Nov. 7, 1878. The mystery has never been cleared up publicly. In 1890 Judge Hilton made a gift of \$500,000 to the cathedral and its schools at Garden City, Long Island. He left an estate valued at \$6,000,000, bequeathed to his relatives.

Hobart, Garret Augustus, twenty-fourth Vice-President of the United States, born near Long Branch, N. J., June 3, 1844; died in Paterson, N. J., Nov. 2, 1899. (For portrait and sketch of his life up to his election, see *Annual Cyclopædia* for 1896.) As presiding officer of the United States Senate he won the personal esteem of every member by his courteous bearing, his eminent fairness, and his ready and sound decisions. His brief career as Vice-President was further distinguished by a closer intimacy with President McKinley than probably ever before existed between a President and a Vice-President of the United States. He was not only the President's political heir apparent, but he was the President's staunch and constant personal friend, his confidential adviser, and, as far as their respective duties permitted, his companion. The uninter-

rupted strain upon his vitality preceding and during the war with Spain, and especially during the trying days when the treaty of peace was discussed by the Senate, undermined a robust constitution. (See GIFTS AND BEQUESTS.)

Hoge, Moses Drury, clergyman, born on College Hill, Hampden-Sidney, Va., Sept. 17, 1819; died in Richmond, Va., Jan. 6, 1899. He was a son of Moses and a brother of James, Samuel Davis, and William James Hoge, all distinguished clergymen and educators, and was graduated at Hampden-Sidney College in 1839 and at the theological seminary there in 1843. In 1844 he was licensed to preach, and was immediately called to the assistant pastorate of the First Presbyterian Church in Richmond, Va. Early in 1845 members of his congregation organized the Second Presbyterian Church, chose him for their pastor, and set about building a church for him, which was completed in 1848. In this charge Dr. Hoge remained until his death. He was an exceedingly energetic worker, and gained the reputation of being the most eloquent preacher in the Southern Presbyterian Church. During the civil war he applied himself to ministering to the wants of the Confederate soldiers. He visited them on battlefields, acted as chaplain at the camp of instruction at Richmond, and while discharging these functions maintained his congregational work regularly. In 1864 he ran the blockade from Charleston, went to England by way of Nassau, and in London procured 10,000 Bibles, 50,000 Testaments, and 250,000 portions of the Scriptures of convenient size for soldiers to carry in their pockets. He ran the blockade a second time, and personally distributed his books. Union Theological Seminary gave him the degree of D. D. Dr. Hoge was a delegate to the general conferences of the Evangelical Alliance in New York in 1873, Copenhagen in 1884, and Boston in 1890. He was Moderator of the General Assembly of the Southern Presbyterian Church in 1874, and in the General Assembly of 1876 he brought about the establishment of fraternal relations with the Northern branch of the Church. In 1877 he was a delegate to the Pan-Presbyterian Church Council in Edinburgh, and in 1888 was a commissioner to the Alliance of Reformed Churches in London.

Holliday, Frederick William McKay, lawyer, born in Winchester, Va., Feb. 22, 1827; died there, May 29, 1899. He was graduated at Yale and in law at the University of Virginia, and was practicing law when the civil war broke out. He entered the Confederate service, was appointed aid to Gen. Carson at Harper's Ferry, and was commissioned colonel of the 33d Virginia Regiment. He took part in several battles, and lost an arm at Cedar Mountain. He then retired from the army and was elected to the Confederate Congress, where he served till the close of the war. In 1876 he was a presidential elector at large, and in 1877 was elected Governor of Virginia as a Democrat. He was an enthusiastic traveler, and had gathered a large collection of paintings, curios, and relics in his foreign tours.

Hopkins, Abel G., educator, born in Avon Springs, N. Y., Dec. 5, 1844; died in Clinton, N. Y., July 27, 1899. He was graduated at Hamilton College in 1866 and at Auburn Theological Seminary in 1869, and in the last year was appointed to the chair of Latin, English, and Literature in Hamilton College, which he retained till his death. He was ordained in 1874, was a popular pulpit orator, and received the degree of Ph. D. from Lafayette College in 1887 and D. D. from Hamilton in 1899.

House, Samuel Reynolds, missionary, born in Westford, N. Y., in 1817; died in Waterford, N. Y., Aug. 13, 1899. He was successively graduated at Rensselaer Polytechnic Institute, Dartmouth College, and Union University, became principal of the Western Academy in Connecticut, and subsequently studied medicine. In 1846 he went to Siam as a medical missionary, and in the ten years of his stay in that country he served as physician to the King. On his return he was ordained in the Presbyterian Church. For several years Dr. House edited the *Knickerbocker Magazine*.

Howard, Guy, soldier, born in Augusta, Me., Dec. 16, 1855; died near Arayat, Luzon island, Oct. 21, 1899. He was a son of Gen. O. O. Howard. He entered the United States army as second lieutenant in the 12th Infantry, Aug. 31, 1876, upon direct appointment; was promoted first lieutenant, July 19, 1882; captain, Jan. 7, 1893; transferred to quartermaster's department, Jan. 31, 1893; promoted quartermaster and major of volunteers, May 12, 1898; chief quartermaster, with rank of lieutenant colonel, Aug. 11, 1898. He served on his father's staff in the Nez Percés war of 1877, took part in several battles, and for his services in the Plute and Bannock war of 1878 was highly commended. In 1882 he was graduated at the United States Artillery School. He was the constructing quartermaster in building Fort Ethan Allen, at Burlington, Vt. His service in the Spanish-American War began at Atlanta as assistant to the chief quartermaster. He was recommended for the post of quartermaster of the 4th Corps, and as such had charge of that department at Camp Alger, Virginia. Upon his promotion to lieutenant colonel of volunteers he took charge of the dispatching of troops from Newport News to Cuba. He was ordered to Manila in August, 1898, and assigned to Gen. Lawton's division as chief quartermaster. He organized the transportation for Lawton's advance, and was helping to establish a new sub-depot at San Isidro, 48 miles north of Manila. He was on board the army gunboat *Oceania*, Oct. 21, 1899, towing two cascoes, when the boat was attacked at close quarters by the Filipino insurgents, and he was shot in the breast. He staggered to the wheel, saying, "Whatever happens, keep the launch going," and soon expired.

Howarth, Mrs. Ellen Clementine (Doran), poet, born in Cooperstown, N. Y., May 20, 1827; died in Trenton, N. J., Dec. 23, 1899. She was the daughter of a calico printer named Doran, and, owing to the great poverty of the family, was sent to work in a factory at the age of seven, after she had learned to read and write. At eighteen she married Joseph Howarth, a calico printer, and removed with him to Trenton. Her husband became blind after some years, and his wife supported the family by caning chairs and washing. While at these tasks she composed her poems, which were published in local papers over the signature "Clementine." During the civil war her patriotic verses were very popular with the soldiers. "Tis but a Little Faded Flower is her best-known poem, which, as well as other verses of hers, has been set to music and been widely popular. Her published books include *The Wind Harp*, and *Other Poems* (Philadelphia, 1864), and *Poems* (Newark, 1867). The latter volume was issued in 1868 with a preface by Richard Watson Gilder, which helped materially in bringing her name to public attention.

Howell, George Rogers, historian, born in Southampton, N. Y., June 15, 1833; died in Albany, N. Y., April 5, 1899. He was graduated

at Yale College in 1854 and at Princeton Theological Seminary in 1864, and entered on ministerial work in western New York. In 1865 he delivered an historical address at the observance of the two hundred and fiftieth anniversary of the settlement of Southampton, and he published *The Early History of Southampton, L. I., with Genealogies* (New York, 1866; second edition, Albany, 1887). In 1872 he became attached to the New York State Library, at Albany, and subsequently he was appointed State archivist. In addition to many pamphlets, he published *Linguistic Discussions*, *The Open Polar Sea*, *Heraldry in America*, and an extensive *History of Albany and Schenectady Counties*.

Hull, William, clergyman, born in Claverack, N. Y., April 17, 1830; died in Albany, N. Y., June 19, 1899. He studied law, and was admitted to the bar in 1851. In 1853 he purchased the *Saugerties Telegraph*, and for four years he practiced law and edited this paper. In 1857 he abandoned the law and began a course in theology, and in 1860 was ordained in the Lutheran Church. He organized St. Matthew's English Lutheran congregation, New York city; was pastor at Ancram, N. Y., 1862-'66; at Athens and Hudson, N. Y., 1866-'69; and at the latter place, 1869-'90. He was a regular contributor to the Church periodicals for many years, the founder and editor of the *Eastern Lutheran*, and a frequent contributor of important historical and theological articles to the *Gettysburg Review*. He was the author also of a history of Hartwick Seminary, the oldest Lutheran institution in this country.

Huntington, David L., soldier, born in Charlestown, Mass., in 1834; died in Rome, Italy, Dec. 20, 1899. He was graduated at Yale in 1855, and studied medicine. He was appointed assistant surgeon in the regular army, July 11, 1862; was promoted assistant surgeon with rank of captain, July 28, 1866; major, April 28, 1877; lieutenant colonel in the department of the surgeon general, April 18, 1895; and was retired, April 10, 1898. In the volunteer service he was appointed medical director with rank of colonel, Feb. 25, 1865, serving till June 30, 1865. In the civil war he was medical director of the Army of the Tennessee, and accompanied Gen. Sherman on the march to the sea. At the close of the war he was assigned to duty in the West, and was in several engagements with the Indians. In 1876 he was placed in charge of the hospital connected with the Soldiers' Home in Washington, and for a time he acted as assistant and acting surgeon general of the army in that city. He was in charge of the Medical Museum in Washington for several years and edited *The Medical Record of the War*.

Hutchinson, Benjamin Peters, speculator, born in Reading, Mass., in 1829; died at Lake Geneva, Wis., March 16, 1899. At an early age he removed to Lynn, where he acquired a limited education and for some time was engaged in the boot and shoe business. In 1856 he settled in Chicago, then went to Milwaukee, and after two years returned to Chicago and undertook grain shipping on a small scale. The civil war gave a sudden stimulus to the meat-packing industry, and Mr. Hutchinson organized the firm of Burt, Hutchinson & Snow. When the Chicago stock yards were opened this firm was the first to operate there. In 1872, after the dissolution of the firm, Mr. Hutchinson connected himself with the Chicago Packing and Provision Company, which had a prosperous career till 1885. He also organized the Corn Exchange Bank, and was its president for many years. Mr. Hutchin-

son first became conspicuous as a speculator in wheat in 1880, and for five years he dominated that market in Chicago. In 1888 he made a memorable "corner" in September wheat. After this his fortunes declined steadily till 1891, when in his last great deal he was on the wrong side of the market for \$2,000,000. Ruined financially, he removed to New York city, where for a while he conducted a second-hand shop and attracted much attention by his eccentricities. Subsequently he returned to Chicago. He was familiarly known as "Old Hutch."

Hyde, Henry Baldwin, insurance president, born in Catskill, N. Y., Feb. 15, 1834; died in New York city, May 2, 1899. When sixteen years old he became a clerk in a mercantile house in New York. Two years later he was appointed a clerk in the Mutual Life Insurance Company, of which he subsequently became cashier. In March, 1859, he resigned from this company and organized a new one on an original plan—the Equitable Life Assurance Society of the United States. William C. Alexander was elected president and Mr. Hyde vice-president and general manager. In 1874, on the death of Mr. Alexander, Mr. Hyde succeeded to the presidency, and he held the office till his death. For many years he personally appointed all the principal agents and daily examined the reports from every department. He originated the system of sending circular letters periodically to agents.

Hyde, Thomas W., soldier, born in Florence, Italy, Jan. 15, 1841; died in Old Point Comfort, Va., Nov. 14, 1899. He was graduated at Bowdoin College in 1861 and later at Chicago University. He enlisted in a Chicago regiment which was not accepted, and then went to the East and was empowered to raise the 7th Maine Infantry. He was chosen major of the regiment, and took it to the front. He was present at the siege of Yorktown, at the battles of Williamsburg and Mechanicsville, and at all the seven-day battles before Richmond. He commanded the regiment in the battles of second Bull Run, Crampton's Gap, and Antietam. He was appointed acting inspector general of the Army of the Potomac. Later he served on the staff of Gen. Sedgwick, and with him took part in the battles of Fredericksburg, Gettysburg, and Spotsylvania. About this time he was commissioned colonel of the 1st Maine Veteran Volunteers, and though only twenty-three years old he was placed in command of the 3d Brigade, 6th Division, 6th Army Corps. He was mustered out in 1865, with the rank of brevet brigadier general. He settled in Bath, Me., leased the Bath Iron Foundry, and at the expiration of the lease purchased the plant. Later he bought the Goss Marine Works, now the Bath Iron Works, and enlarged it till he had a great iron shipbuilding plant. He was mayor of Bath two terms, State Senator one term, and a delegate to the National Republican Convention in 1896.

Ingersoll, Robert Green, lawyer, born in Dresden, N. Y., Aug. 11, 1833; died in Dobbs Ferry, N. Y., July 21, 1899. He was the son of a Congregational clergyman. When ten years old Robert accompanied his father to the West, where their nomadic life allowed the boy but slight opportunity to acquire an education. When eighteen years old he began studying law, and when twenty-one he was admitted to the bar, and formed a partnership with his brother in Shawneetown, Ill. Robert's gift of oratory soon made him conspicuous in the courts, and it was not long before he was recognized as a strong man in Democratic politics. In 1857 the brothers

removed to Peoria, and in 1860 Robert was defeated as the Democratic candidate for Congress. Early in 1862 Robert married Miss Eva A. Parker, of Boston, and soon afterward he organized the 11th Illinois Cavalry and went to the field as its colonel. Much of the time of his military service was spent in scouting and raiding. He commanded his regiment in the battle of Shiloh and in the two days' fight at Corinth. On Nov. 28, 1862, he was sent with a force of cavalry and artillery to intercept a Confederate raiding body of cavalry under Gen. Forrest that was supposed to be heading for Lexington, Tenn. He went into camp near the village at night, and early the next morning his command of 600 men was attacked by a Confederate division 10,000 strong. Col. Ingersoll deployed his men in a single rank on each side of the road, where he had planted his artillery, and while he was directing his command on foot the Confederates charged six ranks deep. Some of the command escaped, but the colonel was soon compelled to surrender. The Confederates, imagining that a larger National force was behind the unfortunate command, hurriedly paroled their prisoners and pushed forward. Col. Ingersoll was then placed in command of a parole camp at St. Louis, and, after waiting several months for exchange of prisoners, despairing of a return to active service, he resigned his commission. This version of Col. Ingersoll's capture by the Confederates is given by Lieut. John W. Kinsey, of his regiment, who took part in the movement, and differs materially from certain more sensational and ludicrous accounts. In 1864 Col. Ingersoll became an energetic and aggressive Republican. He was appointed Attorney-General of Illinois in 1866. In the Republican National Convention of 1876 he nominated James G. Blaine for the presidency in a memorable speech, which contained this sentence: "Like an armed warrior, like a plumed knight, James G. Blaine marched down the halls of the American Congress and threw his shining lances full and fair against the brazen forehead of every defamer of his country and malinger of its honor." This speech thrilled the great audience, and from the day the convention closed till the end of that memorable campaign its author's political services were in constant demand throughout the country. He took an active part also in the campaign of 1880, and Presidents Hayes and Garfield were anxious to do him honor, but his free expression of agnostic views had raised a barrier against official preferment. By 1882, when he removed to New York and was admitted to the bar of the State, he had become a lecturer of wide reputation. His best-known themes were *Some Mistakes of Moses*, *The Family*, *The Liberty of Man, Woman, and Child*, *The Gods*, and *Ghosts*. The family, woman, maternity, and child life were to him particularly hallowed themes, and with death they drew forth his greatest eloquence. He was a student of Shakespeare, whose writings held the place of honor in his library. His generosity was unbounded; to aid others he sometimes impoverished himself. He published *Lectures Complete* (1883); *Prose Poems and Selections* (1884); *Great Speeches* (1887); and several minor works.

Inman, Henry, author and plainsman, born in New York city, July 30, 1837; died in Topeka, Kan., Nov. 13, 1899. He was educated in the public schools and at the Athenian Academy. He went West in 1857 and became an associate of William F. Cody (Buffalo Bill). He entered the army and served through the Indian campaigns till the breaking out of the civil war.

In the latter he was aid-de-camp to Gen. George Sykes, of the 5th Corps. He was severely wounded before Richmond, and was brevetted for gallantry. He was again successively brevetted major and lieutenant colonel, the latter for his work in the great Indian campaign of 1868-'69. He has described his life and adventures in books: *The Old Santa Fé Trail* (New York, 1897); *The Ranch on the Oxhide* (1898); with William F. Cody, *The Great Salt Lake Trail* (New York, 1898); *The Delahoydes* (Topeka, 1899); *Pioneer from Kentucky* (1899). He also compiled *Buffalo Jones's Forty Years of Adventure* (Topeka, 1899).

Ives, Frank, billiard champion, born in Plainwell, Mich., Oct. 5, 1866; died in Progresso, Mexico, in August, 1899. He began to play billiards and pool when eight years old, and when fifteen had won the reputation of an expert. His first play in a public tournament was in 1888. The next season he gave himself up to baseball, becoming catcher for a team in Petoskey, Mich. While traveling with the team he gave frequent exhibitions of his skill at billiards, and defeated the best-known players in the West. His remarkable successes led to his engagement by Jacob Schaeffer, the "billiard wizard," for his parlors in Chicago. In his first serious match play—a handicap with Schaeffer and Slosson—Schaeffer won, with Ives second; and in a notable play with Eugene Carter, in Milwaukee, he equaled the world's record, then held by Vignaux. Subsequently Ives defeated Slosson, and in 1892 he won the championship of the United States by defeating his old mentor, Schaeffer. In 1896 he won the first prize in a tournament in Boston, and in January, 1898, he again won the championship by defeating Schaeffer, and retired from public playing. At the time of his death he was traveling for his health.

Jackson, William, scout, born in Fort Benton, Mont., in 1859; died on Cut Bank creek, Mont., Dec. 31, 1899. He was of one quarter Indian blood. Nearly all his early youth was spent north of the boundary line, with the Cree or with the Chippewa Indians. At the age of twelve he returned to the United States, and was sent to school. At the age of fifteen he enlisted with several Indian boys from the Santee School, to serve as a scout under Gen. Custer on his expedition to the Black Hills. In 1876 he was one of the scouts that accompanied the Custer expedition, serving under Reynolds as chief of scouts, and when the command separated on the day of the fight, these scouts were all left with Reno. Three days earlier Jackson, Bloody Knife, the Ree, and Mitch Boyer were the first to discover the Sioux camp on the Little Big Horn. When the great body of Indians charged Reno's panic-stricken command, Reynolds called out to his men to stand where they were, and all obeyed. But 15 or 20 men could accomplish little against the 500 who were sweeping down upon them. Reynolds was killed, and then Isaiah fell, and then others, until finally Bloody Knife shook hands with Jackson and said, "This is the last day I shall ever fight," and, rushing out among the enemy, killed two and was himself slain. Jackson, with one companion, retreated into the brush, and afterward, meeting Capt. De Rudio and an enlisted man, they hid themselves, and after two nights of extreme suffering and anxiety, managed to reach Reno's command. When the rescuing column of Terry appeared, Jackson was the first to discover them; for Reno, as soon as the Indians drew off, had sent him out with dispatches to find Terry. With this in view, he was

slowly making his way over the prairie, and had just passed over the bloody field where Custer and his troops lay dead when Terry's command appeared round the point of a bluff. For some years after that Jackson remained in Government service. In the spring of 1877 he went down the Yellowstone to Fort Buford with dispatches, and returned on the steamer on which Col. (now Gen.) Nelson A. Miles was a passenger. On the way up the Yellowstone the steamer was hailed by Indians bearing dispatches from Col. La Selles, who was then pursuing a large camp of Sioux. Col. Miles, anxious to communicate with Col. La Selles, persuaded Jackson to endeavor to overtake him with dispatches, a duty of very great peril. The three Indian dispatch bearers proved to be Cheyennes, who a little while before had been hostile, but who after Little Wolf's surrender had asked permission to enlist as Government scouts to fight the Sioux. They proposed to accompany Jackson if a fresh supply of ammunition were furnished them; and he, though distrusting them, had no choice but to accept their company. This was the beginning of a scouting service with the Cheyennes which lasted until the wars of the northern plains were ended by the defeat and surrender of every band of hostile Indians. Jackson, under his name Little Blackfoot, was almost as well known among the older men on the northern Cheyenne reservations as among the people of his own blood. At the close of the wars on the northern plains, when scouts were no longer needed, Jackson, then only twenty years old, conceived the plan of carrying into the enemy's country the war in which he had so long been engaged. At Poplar river and Wolf Point were gathered a large number of Sioux, many of whom had recently surrendered, and were only now recovering from the fatigues of the wars carried on in the past few years. Jackson determined to raid these camps for horses, and with one companion he did so. They descended the Missouri river in a boat which carried their saddles, landed and *cached* themselves at night, and after a day or two of reconnoitering picked out the best horses of the Indian herds and drove them westward. This operation was once or twice repeated, but soon became too dangerous. In the winter of 1879-'80 Jackson, with others, built a trading post on Flat Willow, in the neighborhood of the Snowy mountains, and traded with the Indians. Some years later, the Government of the Northwest Territories, alarmed by the acts of the half-breeds and Indians in the Riel rebellion, enlisted a company of scouts, who were stationed at different points. Jackson enlisted in this company, and not long after the close of the rebellion, and consequent disbandment of the company, he made his appearance on the Piegan reservation. After a time he took up a ranch on Cut Bank, and began to take parties into the mountains to hunt.

James, Charles P., jurist, born in Cincinnati, Ohio, May 11, 1813; died near Leesburg, Va., Aug. 9, 1899. He was educated in his native city, and admitted to the bar there in 1840. In 1840-'56 he was Professor of Law in the Cincinnati Law School, and during a part of the time was also judge of the Superior Court of Cincinnati. He removed to Washington, D. C., in 1864, occupied the chair of Law in Georgetown University four years, and in 1866 and 1870 was appointed a member of commissions to revise the statutes of the United States. In July, 1878, he was appointed an associate justice of the Supreme Court of the District of Columbia, from which he was retired in December, 1892.

James, William Cowles, jurist, born near Elmyra, Lorain County, Ohio, Jan. 1, 1830; died in Council Bluffs, Iowa, April 2, 1899. He was educated at Oberlin College, studied law in Cleveland till 1852, and in 1853 settled in Council Bluffs. In 1855 he built the first brick house in that village, in 1856 was elected county judge of Pottawattamie County and an alderman, and in 1874 and 1880 was chosen mayor of the city. He was intimately associated with all movements to promote the growth and prosperity of the city. Of all his public services, that rendered in the early seventies, when he was the chief promoter of the city's great fight in the courts for the retention of the Union Pacific transfer, will probably be longest held in remembrance.

Jarchow, Henry Nicholas, scholar, born in Rostock, Germany, Nov. 7, 1819; died in New York city, Feb. 24, 1899. He was graduated at the University of Rostock, became eminent and wealthy in the practice of law, and served in the ducal legislature of Mecklenberg-Schwerin. In 1869, owing to reverses, he sold his estate and removed to New York. Dr. Jarchow was well versed in classical literature, particularly Greek, Polish, and Slavonic, and was an enthusiastic student of agriculture and forestry. He founded the first German agricultural periodical in New York, and wrote the first elaborate treatise on forestry published in this country.

Jewett, Sara, actress, born in Buffalo, N. Y., in 1851; died in Cambridge, Mass., Feb. 27, 1899. She was educated in the seminary of Lenox, Mass., and became a pupil of Miss Fanny Morant, the actress. In the autumn of 1872 Miss Morant introduced Miss Jewett to Augustin Daly, who, after witnessing her rehearsals, gave her a contract for a three years' engagement at his theater. Her *début* was made as Mabel Wykoff in *Diamonds* at the Fifth Avenue Theater (Daly's), and she was at once accepted by New York audiences as a finished and favorite actress. It was but a short time after this first appearance that the burning of Daly's Theater occurred, and in consequence of that misfortune Miss Jewett went on a tour through the West until the New Fifth Avenue Theater was completed. On the night of the opening of this house Miss Jewett, as the youngest member of the now famous Daly company, had a full share of the enthusiasm with which New York greeted its favorites. She remained three years with the Daly company, during which time she played *Flora Penfield* in *Divorce*, *Clara Burrows* in *Fortune*, *Virginia Vanderpool* in *Saratoga*, *Eve* in *Charity*, *Maria* in *Love's Labor's Lost*, *Mrs. Glenham* in *Man and Wife*, *Mrs. Featherly* in *Everybody's Friend*, and many other important parts. She was particularly and always successful in the portrayal of gentle and emotional characters. She had a graceful carriage and a charming sweetness of voice and expression, especially fitting the lovable young girls about whom the modern society drama weaves its story. Miss Jewett made her first appearance with the Union Square Theater company, Nov. 20, 1876, in the part of *Mathilde* in *Miss Merton*. She remained with this company seven years, and was leading lady of the theater from 1879 to 1883. Her last appearance with the Union Square company was in the *Long Strike*. She then for a few months in 1883-'84 was leading lady with John Stetson's Fifth Avenue Theater company, which was not continued after that season. Miss Jewett, after a season or two of travel with different organizations, retired from the stage. Her last appearance was in *The Two Orphans* in 1886.

Johnson, Ellen Cheney, penalologist, born in Athol, Mass., Dec. 20, 1819; died in London, England, June 28, 1899. She was a daughter of Nathan and Rhoda Cheney, and the widow of Jesse C. Johnson. Mrs. Johnson was educated in the public schools of New Hampshire and in the Franconia Academy, and acquired a business training by traveling with her father, a cotton manufacturer. During the civil war she was associated with Mrs. Harrison Gray Otis in soldiers' relief work, and was an effective laborer in the United States Sanitary Commission. When this organization was in its infancy she undertook the formation of a New England auxiliary, and served on its Finance and Executive Committees to the end of the war. She was also one of the leading organizers and directors of the great Sanitary Commission Fair in Boston. After the war she continued to look after the soldiers and the widows and orphans of soldiers. While in charge of relief work in the north end district of Boston she was impressed with the desirability of having a separate correctional institution for women. She inaugurated an agitation for such a reform, and for nine years labored for it. The Massachusetts Reformatory Prison for Women, at Sherburne is the result. In May, 1884, Mrs. Johnson, who had already served on the Board of Prison Commissioners, was appointed superintendent of the new institution, a place she continued to hold until her death. From the day she assumed the office she gave her whole attention to improving its conditions. Additional grounds were purchased, both to provide work for the inmates and to furnish food instead of buying it. The new industry became profitable financially, and also proved a tonic for women in poor health. At the time of her death she had just read a paper before the International Council of Women, when she was suddenly prostrated with apoplexy. (See GIFTS AND BEQUESTS.)

Johnson, Isaac Gale, manufacturer, born in Troy, N. Y., in 1832; died in Spuyten Duyvil, N. Y., June 3, 1899. He was graduated at Rensselaer Polytechnic Institute in 1848, and, after spending two winters in special study, established himself as a manufacturer of malleable iron at Spuyten Duyvil, and in later years of steel. His scientific attainments, inventive skill, and good judgment made him successful. In recent years he had given much attention to projectiles, and among his inventions was a cap for armor-piercing projectiles, which was purchased by the Navy Department and used against Admiral Cervera's squadron off Santiago de Cuba.

Johnston, William Preston, educator, born in Louisville, Ky., Jan. 5, 1831; died in Lexington, Va., July 16, 1899. He was a son of Gen. Albert Sidney Johnston, and was graduated at Yale in 1852 and at the Louisville Law School in 1853. During the civil war he served in the Confederate army as colonel and aid-de-camp to Jefferson Davis. He was Professor of History and Literature at Washington and Lee University in 1866-'77, and president of Louisiana State University in 1880-'83. In 1884 he became president of Tulane University, New Orleans, and he held that office at the time of his death. He was the author of a *Life of General Albert Sidney Johnston* (New York, 1879); *The Johnstons of Salisbury: The Prototype of Hamlet; and Seekers after God*, a volume of verse.

Julian, George Washington, legislator, born near Centerville, Wayne County, Ind., May 5, 1817; died in Irvington, Ind., July 7, 1899. While he was a boy his father's death cast him on his own resources to obtain an education. He taught

in winter, surveyed in summer, and when twenty-one years old was admitted to the bar. In 1845 he was elected to the State Legislature, and in 1849 to Congress. There he almost immediately made himself a conspicuous foe of slavery and a champion of the homestead system. His prominence in 1852 led to his selection as vice-presidential candidate on the Free-soil ticket. In 1856 he was a delegate, vice-president, and chairman of the Committee on Organization in the first national convention of the Republican party. He was re-elected to Congress in 1860, and served there ten years, having a place on the Committees on the Conduct of the War, on Reconstruction, and on the Preparation of Articles of Impeachment against President Johnson. Mr. Julian was an advocate of woman suffrage, and in 1868 he proposed in Congress a constitutional amendment conferring the right to vote on women. In 1872 he united with the Liberal Republican party, and supported Horace Greeley for the presidency. He was Surveyor General of New Mexico in 1885-'89, and he afterward lived in retirement. He published *Speeches on Political Questions* (Boston, 1872); *Political Recollections* (Chicago, 1884); and *The Life of Joshua R. Giddings* (1892).

Juneau, Joseph, miner, born in Assumption, Quebec, Canada, about 1824; died in Dawson, Alaska, May 13, 1899. He was a second cousin of Solomon Juneau, founder of Milwaukee, Wis., and was one of a family of 21 children, 15 of whom were boys. He spent the first seventeen years of his life in his native place, then suddenly disappeared, and was neither seen nor heard of for twenty years. Leaving home, he had worked his way to the Western coast, journeyed to Portland, Ore., and in company with one companion had paddled in an open canoe from Portland to Sitka, Alaska. Prior to 1880 he had penetrated the Northern wilderness, discovered a rich lead of gold, and founded the little settlement that received its name from him and later became one of the important towns in the Territory. In Alaska he made and lost several fortunes. He had relatives in Milwaukee whom he was always promising to visit, but he rarely got beyond San Francisco, whither he was in the habit of going frequently for a few weeks' chat with his old mining friends.

Kaiulani, Princess **Victoria**, former heir apparent to the throne of Hawaii, born in Honolulu, Oct. 16, 1875; died there, March 6, 1899. Her father was Archibald S. Cleghorn, a native of Scotland, long a resident of Hawaii, and ex-governor of the island of Oahu, and her mother, his wife, the Princess Miriam Likelike, sister of the late King Kalakaua and of the deposed Queen Liliuokalani. The princess was carefully educated in England, and while studying there, March 9, 1891, she was proclaimed heir apparent to the throne by Queen Liliuokalani. Early in 1893 she visited the United States, and protested against the proposed treaty of annexation. She afterward returned to England, but revisited the United States in October, 1897, on her way to Waikiki, a suburb of Honolulu, where her father had built a beautiful place for her. After annexation was accomplished she dropped her royal title and called herself Miss Victoria Cleghorn. The princess was a typical Hawaiian beauty, and a favorite of all classes on the islands.

Kapiolani, dowager Queen of Hawaii, born Dec. 31, 1834; died in Honolulu, June 24, 1899. She was descended from a long line of principal chiefs on the island of Kauai, and was the granddaughter of the last king of the island, the only

monarch in Hawaii who was not forced to surrender to Kamehameha I, who united the islands under a single government. In 1863 she married High Chief David Kalakaua, who was chosen king in 1874. Her influence was all for good, and her greatest desire was the uplifting of her race. She had no children, and devoted most of her time to charitable work, and founded the Kapiolani Home for Leper Girls. She had visited England, and in 1887 made a tour of the United States.

Keener, John Ormon, educator, born in New Orleans, La., Aug. 17, 1854; died in Greensboro, Ala., Dec. 31, 1898. He was a son of Bishop John C. Keener, of the Methodist Episcopal Church, South. He was graduated at the Southern University, Greensboro, Ala., in 1874, united with the Alabama Conference of his Church the same year, and was employed in itinerant work till June, 1894, when he was elected president of his *alma mater*, which had given him the degree of D. D. the previous year. President Keener represented his conference in the General Conferences of 1894 and 1898, and was a member of the last Ecumenical Conference of Methodism.

Kellogg, Samuel Henry, theologian, born in Quogue, Long Island, N. Y., Sept. 6, 1839; died in Landour, India, May 2, 1899. He was graduated at Princeton in 1861 and at its theological seminary in 1864, and was ordained an evangelist and went to India under appointment by the Presbyterian Board. In 1865-'71 he was stationed at Futteghur, and in 1872-'76 in Allahabad, in the latter place acting also as instructor in theology in the synodical school. He returned to the United States early in 1877, and that year became pastor of the Third Presbyterian Church in Pittsburg, Pa., and Professor of Systematic Theology in the Western Theological Seminary, at Alleghany. In 1886 he was called to the St. James's Square Presbyterian Church, in Toronto, Canada, where he remained till 1892. As a missionary he returned to India late in 1892, and there applied himself to Bible translation and other literary work in the Indian vernaculars. He was killed by being thrown over a precipice while on a cycling tour in the Himalaya mountains. Besides his translation of the *Larger Catechism* of the Presbyterian Church into Hindi, his publications include *A Grammar of the Hindi Language* (Allahabad, 1876; enlarged edition, London, 1892); *The Jews; or, Prediction and Fulfillment* (New York, 1883); *The Light of Asia* and *The Light of the World* (1885); *From Death to Resurrection* (1885); *Are Premillennialists Right?* (Chicago, 1885); *An Exposition of the Book of Leviticus* (forming Vol. III of the *Expositor's Bible*, London, 1891); and *The Genesis and Growth of Religion* (1892).

Kemper, Delaware, soldier, born in Warren-ton, Va., Aug. 25, 1833; died in Alexandria, Va., June 30, 1899. He was educated at the University of Virginia. He entered the Confederate army in May, 1861, as captain of the Alexandria artillery, took part in the battles at Mitchell's Ford and Bull Run, and was wounded at the second battle of Manassas in August, 1862. On his recovery he was placed in command of the reserve artillery in Charleston and recommended for promotion to brigadier general. After the war he was elected Professor of Mathematics in Hampden-Sidney College, and he remained in that office seventeen years. He then became Professor of Natural Sciences in the Citadel Academy, Charleston, and later was appointed president of Adger College, South Carolina. In 1893 he was appointed consul at Amoy, China. Upon the ex-

piration of his term as consul he again settled in Alexandria and became part owner and editor of the Alexandria Times.

Kendall, Ezra Otis, educator, born in Wilmington, Mass., May 15, 1816; died in Philadelphia, Pa., Jan. 5, 1899. He went to Philadelphia in 1835, after receiving his early education in Woburn, placed himself under the instruction of his half-brother, Sears C. Walker, a noted mathematician, and was appointed Professor of Theoretical Astronomy and Mathematics in the public high school of that city in 1838. He organized and equipped an astronomical observatory, in which for many years he passed the greater part of the nighttime. The first results of his observations and studies appeared in his *Uranography*, which was accomplished by an original atlas of the constellations. His work attracted the attention of scientists in the employment of the Federal Government, and on their recommendation he was employed several years in making observations for longitudes for use in the United States Coast Survey. In 1851 he received an appointment on the United States Ephemeris and Nautical Almanac, and he had much to do with the compilation of that work till 1882. He edited scientific books and contributed frequently to technical periodicals on astronomical topics. In 1855 he was elected Professor of Mathematics and Astronomy in the University of Pennsylvania, and there he labored without interruption thirty-five years, retiring as professor emeritus in 1890. For seven years prior to his retirement he was vice-provost of the university, and for several he was dean of the faculty. He received the degree of LL. D. from the university in 1888.

Kerrigan, James E., politician, born in New York city, Dec. 25, 1828; died in Brooklyn, N. Y., Nov. 1, 1899. In his boyhood he was a leader of the Bowery youth and a member of No. 14 Hose of the old volunteer fire department, of which Harry Howard was foreman. At the age of seventeen he ran away from Fordham College and enlisted for service in the Mexican War. After the fall of the city of Mexico he joined Gen. Walker's filibustering expedition to Nicaragua as a captain. On his return to New York city he became the leader of the Bowery element of Tammany Hall. He was elected alderman from the 6th Ward, and served a term as clerk of the old Tombs police court. At the beginning of the civil war he organized the 25th New York Volunteers and became its colonel. He was dismissed from the service on account of having had intercourse with the enemy just before the advance on Miner's Hill in September, 1861. In 1862 he was elected to Congress, where he served one term. He next became an enthusiastic Irish Nationalist, and when the invasion of Canada was planned in 1866 he led a company across the border. In the spring of 1899 he went to the Klondike, looking for adventure.

Keyser, John H., philanthropist, born in Westport, Conn., in 1819; died in East Norwalk, Conn., Aug. 20, 1899. For forty years he manufactured stoves and furnaces in New York city, and had extensive business interests elsewhere, including a large foundry at Greenpoint, N. Y. He received 32 patents for original inventions, and made and lost several fortunes. While the Tweed ring was under investigation he was accused of having been a partner of Tweed and of having received large sums of money from the city because of this connection. He denied the charges, and made an assignment to Jackson S. Schultz, of the Citizen's Committee, of property of an estimated

value of \$600,000 to "repay out of the proceeds of it all sums of money which he may have improperly received from the city or county of New York." The committee fully exonerated him from all charges of corruption. In 1863 Mr. Keyser did much to protect the colored people of the city from the fury of the draft rioters. In 1868 he built the Strangers' Rest at a cost of \$25,000, and in it sheltered and fed annually about 9,000 homeless men and women, at an expense of \$12,000 per annum, for five years. Two years later he bought and rebuilt property on Tenth Street at a cost of \$80,000, and conducted a free Strangers' Hospital for three years. In the panic of 1873, when his residence was besieged by the hungry and homeless, he converted his back yard into a dining room, and for several weeks gave two meals daily to an average of 1,000 persons. In 1888 also he established a free eating house on Washington Square, in which 2,000 persons received two meals daily. Again, during the severe winter of 1894, he undertook to aid the homeless, and it was largely through his efforts that 1,200 homeless men were nightly sheltered.

Kreusi, John, engineer, born in Switzerland in 1843; died in Schenectady, N. Y., Feb. 22, 1899. He received his professional education in his native country, and in 1870 came to the United States and was employed by the Singer Sewing Machine Company at Elizabethport, N. J. Two years later he went to work with Thomas A. Edison, who was then making stock exchange telegraph instruments. He soon became Mr. Edison's most confidential associate, and was intrusted with the development of many of his electrical and mechanical ideas. After Mr. Edison had conceived the idea of the phonograph he placed in Mr. Kreusi's hands a rough drawing of the projected instrument and some hastily fashioned parts, and asked him to perfect the apparatus. This Mr. Kreusi did, and the first words spoken into the first phonograph were by Mr. Edison, and comprised the verse beginning with "Mary had a little lamb." Subsequently Mr. Kreusi invented and perfected the underground tubing system now in general use. At the time of his death he was the chief mechanical engineer of the General Electric Company, much of whose apparatus was of his invention.

Kynett, Alpha Jefferson, clergyman, born in Adams County, Pennsylvania, Aug. 12, 1829; died in Harrisburg, Pa., Feb. 23, 1899. He received as good an education as was possible to pioneer families in Iowa, was licensed to preach in 1850, and was admitted into the Iowa Methodist Conference in 1851. He became a presiding elder in 1860, and corresponding secretary of the Church Extension Society of the Upper Iowa Conference in 1864. In the last year he presented the plan and scope of the Church Extension Society before the General Conference, by which it was adopted. In 1867 Dr. Kynett was elected corresponding secretary of the General Church Extension Society, and he was re-elected at each quadrennial General Conference thereafter. Under his direction the society collected and disbursed more than \$4,000,000 in the first twenty-five years. During the civil war Dr. Kynett served on the staff of Gov. Kirkwood, of Iowa, aided in recruiting several regiments, and organized the Iowa branch of the Sanitary Commission. He received the degree of D. D. in 1867 and of LL. D. in 1887. He published Laws and Forms concerning Churches.

Lalor, John J., author, died in Washington, D. C., June 10, 1899. He taught in the East Side High School, Milwaukee, in 1885, and later went into the publishing business. He translated

various works from the French and German, and at the time of his death was employed as a translator in the office of the Director of the Mint in Washington. He edited *A Cyclopædia of Political Science, Political Economy, and Political History of the United States* (3 vols., New York, 1881), and translated Roscher's *Principles of Political Economy* (1878); Jhering's *Struggle for Law* (Chicago, 1879); Nohl's *Mozart* (1880); Nohl's *Beethoven* (1880); and, with A. B. Mason, *Von Holst's History of the United States* (1876) and *Principles of Political Economy* (1887).

Lamson, Charles Marion, clergyman, born in North Hadley, Mass., May 16, 1843; died in St. Johnsbury, Vt., Aug. 8, 1899. He was graduated at Amherst College in 1864, remained there as instructor in Latin and English for two years, and then took the theological course in Halle University, Saxony. In 1868 he became pastor of the Porter Congregational Church in Brockton, Mass., and in 1871-'85 he was pastor of the Salem Street Congregational Church in Worcester, Mass. He went to the North Congregational Church in St. Johnsbury, Vt., in 1885, and to his last charge, Hartford, Conn., in 1893. On Oct. 14, 1897, he was elected president of the American Board of Commissioners for Foreign Missions. He received the degree of D. D. in 1885.

Lansdale, Philip Van Horn, naval officer, born in Washington, D. C., Feb. 5, 1858; died near Apia, Samoa, April 1, 1899. He was a son of the late Philip Lansdale, medical director in the United States navy, and was graduated at the Naval Academy in 1879. He was promoted master, June 1, 1881; lieutenant (junior grade), March 31, 1888; lieutenant, May 15, 1893; and was assigned to his last duty, June 15, 1896. For several years he was attached to the Bureau of Naval Intelligence, and during the Columbian Exposition in Chicago was in charge of the Spanish caravels. In 1896 he was for a second time attached to the Philadelphia. Early in 1899 Rear-Admiral Albert Kautz, U. S. N., commandant of the Pacific station, was ordered to proceed from San Francisco to Samoa on his flagship, the Philadelphia. On April 1 a joint American and British naval expedition was sent from the ships of the two nations, then lying in the harbor of Apia, to suppress the uprising of the adherents of Mataafa, one of the claimants of the kingship. This force was caught in an ambush, and in the midst of a heroic defense in the face of overwhelming numbers was put to a great disadvantage by the repeated breaking down of the Colt automatic gun. The American and British bluejackets fought nobly side by side under their respective commanders till they ran short of ammunition and darkness set in, when a retreat was ordered. The expedition was led by Lieut. Angel H. Freeman, of the British cruiser *Tauranga*, who was shot dead in the fight, Lieut. Lansdale, who was fatally wounded while endeavoring to relieve the "jammed" Colt gun, and Ensign J. R. Monaghan, also of the Philadelphia, who was killed while trying to save Lieut. Lansdale.

Lawrence, William, jurist, born in Mount Pleasant, Ohio, June 26, 1819; died in Bellefontaine, Ohio, May 8, 1899. He was graduated at Franklin College, Ohio, in 1838, was admitted to the bar in 1840, and became commissioner in bankruptcy for Logan County in 1842 and prosecuting attorney in 1845. He owned and edited the *Logan County Gazette* in 1845-'47, and afterward edited the *Western Law Journal*. In 1846 he was elected a State Representative, in 1848 a State Senator, in 1851 reporter for the Ohio Su-

preme Court, and in 1853 was returned to the Senate. He was elected judge of the Court of Common Pleas in 1856 and 1861, served as colonel of the 84th Ohio Volunteers in 1862, and resigned from the Common Pleas bench in 1864. During 1865-'71 and 1873-'77 he was a Republican Representative in Congress, and in 1880-'85 he was Comptroller of the Currency. For several years he was president of the National Association of Wool Growers. He published *Reports of Decisions of the Supreme Court of Ohio* (1852); *The Treaty Questions* (1871); *The Law of Religious Societies and Church Corporations* (1873); *The Law of Claims against the Government* (1875); *The Organization of the Treasury Department of the United States* (1880); and *Decisions of the First Comptroller in the Department of the Treasury of the United States* (1881-'85).

Lay, John Louis, inventor, born in Buffalo, N. Y., Jan. 14, 1832; died in New York city, April 17, 1899. He was appointed a second assistant engineer in the United States navy in July, 1862, and first distinguished himself by accompanying Lieut. William B. Cushing on the expedition against the Confederate ram *Albemarle* and by designing the torpedo with which that vessel was destroyed. He was promoted first assistant engineer in October, 1863, and in 1865, after the occupation of Richmond by the National army, he was sent up the James river in advance of Admiral Porter's fleet to remove obstructions. Soon after the war he resigned from the navy and entered the service of Peru, where he spent some time in preparing the harbor of Callao to resist the entrance of a Spanish fleet by means of fixed mines and suspended torpedoes. While so engaged he conceived the idea of a moving submarine torpedo. On his return to the United States in 1867 he perfected the weapon that bears his name, and afterward sold it to the Government. The Lay submarine torpedo boat is a cylindrical vessel with conical ends, operated by an engine and screw propeller worked by carbon-dioxide gas, and controlled from ship or shore by an electric battery and keyboard. The boat is fitted to carry a spar torpedo or a charge of some high explosive, and has attained a speed of 9 miles an hour. Mr. Lay had received large sums of money from the United States, South America, and other governments, but unfortunate speculations and the heavy expense of continual experiments to keep his inventions up to the requirements of the day had impoverished him.

Le Brun, Nicholas, composer, born in France in 1819; died in St. Louis, Mo., July 23, 1899. He received his musical education in his native country, and came to the United States in 1842. For thirty-five years he was a member of the orchestra of the Olympic Theater, St. Louis. In 1865, in a week's time, he completed the *Lincoln Dead March*, which was played by a band of 100 pieces, with a chorus of 2,000 voices, under his personal direction, at the funeral of the President.

Le Gendre, Charles William, diplomatist, born in Paris, France, about 1829; died in Seoul, Korea, Sept. 2, 1899. He was educated at the University of Paris, and came to the United States in early manhood. At the beginning of the civil war he entered the National army, and was first placed in command of the post of Wille's Point, Long Island. Subsequently he became major and colonel of the 51st New York Volunteers, and brigadier general, serving to the close of the war and receiving several wounds. In 1865 he was appointed United States consul at Amoy, China, with consular jurisdiction in Formosa also. He induced the natives of For-

mosa to organize a system for the protection of shipwrecked crews from foreign ports, and greatly advanced the tea trade of the island. At the close of this service he was appointed minister to the Argentine Republic, and while on his way home he was stopped at Yokohama by United States Minister De Long, who urged him to remain in Japan and take charge of the Department of Foreign Affairs of that country. With the approval of the Government he accepted this post, and he held it throughout the ten years' reconstruction period of that empire. At the close of this service Gen. Le Gendre went to Korea and became adviser to the King, now Emperor.

Leiper, Charles Louis, soldier, born in Aven-dale, Pa., Dec. 25, 1842; died in Philadelphia, Pa., Aug. 13, 1899. He began his military career with the Philadelphia City Troop, serving from May 13 till Aug. 17, 1861. He then assisted in forming the 6th Pennsylvania Cavalry, known as Rush's Lancers, and was mustered in as first lieutenant, Sept. 7, 1861; was promoted captain, Nov. 20, 1862; major, Sept. 1, 1864; lieutenant colonel, Feb. 1, 1865; colonel, March 20, 1865; and was mustered out, Aug. 7, 1865. He was brevetted brigadier general, March 13, 1865. On his return from the army he engaged in the manufacture of textile goods. He organized the 6th Pennsylvania Cavalry Association, and was its only president. He was for several years president of the War Veterans' Club.

Leitch, Robert R., naval officer, born in Baltimore, Md., in 1850; died in Brooklyn, N. Y., March 14, 1899. He was graduated at the head of his class in the Naval Academy in October, 1871. He was promoted to be second assistant engineer, Jan. 23, 1874; assistant engineer, Feb. 24, 1874; and passed assistant engineer, Jan. 15, 1879. He became chief engineer, Sept. 30, 1894, and on Feb. 19, 1896, he was retired, on account of failing health, with the relative rank of lieutenant commander. Since that time he had lived in Brooklyn. When the war with Spain broke out he was assigned to special duty as chief engineer to the Pensacola Navy Yard.

Leland, Warren F., hotel keeper, born in Londonderry, Vt., in 1844; died in New York city, April 4, 1899. He belonged to a family of hotel proprietors and managers that has been known throughout the United States nearly a century. He was educated at Hiram College, where one of his teachers was James A. Garfield. After being graduated he went to New York, where his father had been conducting the Clinton Hotel, but had sold it to his brothers, Charles and Warren. In 1852 these brothers became proprietors of the Metropolitan Hotel, where young Warren began his hotel career when sixteen years old. He worked his way through the various departments till he became chief of the office staff. In 1868 he and his brother Charles leased the Delavan House, in Albany, N. Y. From Albany Warren went to Chicago, where in 1880 he purchased the Gardener House, made large additions, and opened it as the Leland Hotel. In 1892 he sold this property to a syndicate and built the Chicago Beach Hotel, which he managed throughout the Columbian Exposition. His next venture was at Newport, R. I., where he conducted the Ocean House a year, and during the winter of 1895-'96 he was at the head of the Windsor Hotel in Jacksonville, Fla. He leased the Windsor Hotel, New York, in May, 1896, and conducted it till its destruction by fire, March 17, 1899. Nearly a score of persons perished in the fire, including his wife and daughter. This dis-

aster was a terrible shock to Mr. Leland, but while directing the search for the remains of the victims and assisting in the work of identification he set about preparing for the erection of a new hotel. He was suddenly seized with an affection that necessitated a surgical operation, from which he failed to recover.

Leonard, Moses Gage, benefactor, born in Stafford, Conn., July 10, 1809; died in New York city, March 20, 1899. He received a district school education, and removed to New York in 1832. In 1840 he was elected an alderman. During the three years he held this office he was chairman of the Committees of Arts, Sciences, and Schools, served on the Croton Aqueduct and Finance Committees, and also presided in the different city courts, in which the aldermen of those days had jurisdiction. In 1844 he was elected to Congress, where he promoted the tariff reform measures. He was defeated for a second term in 1846, but was elected Commissioner of Charities and Alms, then the second officer of the city in point of honor and pay. During his term of this office he was conspicuous in organizing the hospitals of the city. Old buildings were replaced with new ones. The Bellevue structure, occupied by paupers, was converted into a hospital; an additional building for lunatics was erected; and a children's department building was put up on Randall's island from plans drawn by Mr. Leonard. For his services during the "ship fever" epidemic and the potato famine in 1847-'49 the citizens gave him a public reception and presented him with a silver service. In the summer of 1849 he was called to San Francisco by business, and in the following year was elected to the first Common Council of the city after the admission of the State into the Union. There he rendered valuable service in framing and enacting municipal ordinances and providing the city with a substantial government, and this service was recognized by a public banquet in his honor. In the second year of the civil war, at the request of Gov. Morgan, Mr. Leonard, in conjunction with the late Judge Robertson, organized, equipped, and sent to the front the 135th New York Volunteers, afterward the 6th New York Artillery. Later he was provost marshal of the 10th Congressional District, and made the first two drafts of troops there, for which he received the thanks of the Government.

Lewis, Lillian (Mrs. Lawrence Marston), actress, born in Midway, Ky., in 1852; died in Farmington, Minn., Aug. 11, 1899. Her first appearance on the stage was in 1882, when she played Marianne in *The Two Orphans* at the Fifth Avenue Theater, New York. After three years of success in various companies, she organized a company of her own and entered upon a successful career as a star at the People's Theater, New York, in the autumn of 1885. She chose the part of Cora in *Article 47* for her introduction to the public on that occasion, and was well received. In addition she played the principal woman in *Camille*, *The Lady of Lyons*, *An Unequal Match*, *The New Magdalen*, *Frou-Frou*, and *Adrienne Lecouvreur*. In 1888 she married Lawrence Marston, who had been for some time her leading man. Mr. Marston continued to act the principal men of her plays, managed her business, and adapted and wrote plays for her. By his work her repertory was increased with *As in a Looking Glass*, *Dofia Sol*, *Credit Lorraine*, *Lady Lil*, *Good-by*, *Sweetheart*, *Cleopatra*, *An Innocent Sinner*, *For Liberty and Love*, and *The Widow Goldstein*. The last three were the joint work of Mr. and Mrs. Marston. Her last appearance

was in St. Louis, April 27, 1898. The last year of her life was passed in seeking relief from consumption.

Littlefield, Milton Smith, soldier, born in Jefferson County, New York, in 1830; died in New York city, March 7, 1899. He studied law in the office of Abraham Lincoln in Springfield, Ill., and was practicing in that city when the civil war broke out. He was commissioned a captain in the 14th Illinois Regiment, of which Col. (afterward Gen.) John M. Palmer was commander. He went through the campaign of 1862 as provost marshal on Gen. Sherman's staff, with station at Memphis, Tenn. Subsequently he was transferred to the Department of the South, with headquarters at Hilton Head, S. C. He took part in the siege of Charleston, served on the staff of Gen. Gillmore, and afterward was inspector general of colored troops. After the war he engaged in railroad business.

Livermore, Daniel Parker, clergyman, born in Worcester, Mass., in 1819; died in Melrose, Mass., July 5, 1899. When nineteen years old he was ordained to the Universalist ministry, and became pastor of a church in Fall River. In 1845 he married Mary Ashton Rice, then a teacher in Duxbury, afterward widely known as a reformer. They lived successively in Stafford, Conn., Malden and Weymouth, Mass., Auburn, N. Y., Quincy, Ill., and Chicago, where in 1857 he became editor and publisher of the New Covenant, and for twelve years was assisted in editorial work by his wife. In 1869 they settled in Melrose, keeping their home there during the ten years he held a pastorate in Hingham. After his retirement he assisted his wife in her literary work.

Lockwood, Henry Hayes, educator and soldier, born in Kent County, Delaware, Aug. 17, 1814; died in Washington, D. C., Dec. 7, 1899. He was graduated at West Point in 1836 and assigned to the artillery service. He took part in the operations against the Florida Indians in 1837, after which he resigned and began farming in Delaware. In 1841 he was appointed Professor of Mathematics in the United States navy. He served in the Pacific squadron and took part in the capture of Monterey, Cal., in October, 1842. Later he was stationed at the naval asylum in Philadelphia. He was made Professor of National Philosophy in the United States Naval Academy in 1845, was Professor of Artillery and Infantry Tactics from 1845 till 1861, and also Professor of Astronomy and Gunnery from 1851 till 1861. In the civil war he was colonel of the 1st Delaware Volunteers, and was promoted brigadier general of volunteers, Aug. 8, 1861. He was in charge of Point Lookout and of the defenses of the lower Potomac. At the battle of Gettysburg he commanded a brigade of the 12th Corps. After the war he returned to the Naval Academy as Professor of Natural Philosophy. From 1871 till 1876 he served at the Naval Observatory. He was retired on Aug. 18, 1876. He was the author of *A Manual for Naval Batteries and Exercises in Small Arms and Field Artillery*, arranged for Naval Service. He was the father of Lieut. James B. Lockwood, who died while a member of the Greely arctic expedition.

Logan, John Alexander, soldier, born in Murphyshoro, Ill., July 24, 1865; died in Luzon, Philippines, in November, 1899. He received an appointment to West Point and attended for two years, but was not graduated. He then embarked in the real estate business in Washington, but soon removed to Youngstown, Ohio,

where he engaged in limestone quarrying, and at one time conducted a fancy stock farm. For several years he was captain of the local militia company, known as the Logan Rifles. In May, 1898, he received the appointment of assistant adjutant general, with the rank of first lieutenant, on the staff of Gen. John C. Bates. He went to Cuba and took part in the battle of El Caney. He was promoted to major for gallantry, and at the conclusion of the Cuban war was with Gen. Bates, who was governor of Santa Clara province. On Aug. 19, 1899, he was appointed major of the 33d United States Volunteers, and he sailed with his regiment for the Philippines early in October. He was the author of a book entitled *Joyful Russia*. The earlier reports of his death were that he had been shot by one of his own men; but this was disproved by later reports from witnesses, who declared that he was shot by a Filipino sharpshooter in a tree. The Filipino first shot a private, and Major Logan dismounted to help the wounded man, when the sharpshooter shot and killed him. Then the major's orderly went to Logan's assistance and was also shot, as well as the hospital steward. Major Lieberman then saw the Filipino in a tree, and killed him with his pistol.

Lord, Russell Farnham, engineer, born in Honesdale, Pa., in 1838; died in New York city, July 12, 1899. He was graduated at the Sheffield Scientific School of Yale University, and then spent several years as assistant to his father. At the beginning of the civil war Gov. Curtin appointed him a brigadier general of volunteers, and throughout the war he was engaged in organizing regiments for the field. After the war he went West to engage in mining engineering, remaining there till 1886, when he was appointed chief engineer to the Government of Salvador. In 1892 he went to Ecuador, and he was employed in developing mining property there till 1897.

Luna, Antonio, Filipino insurgent, born in Manila, Philippine Islands, about 1854; died on Luzon island, June 8, 1899. He was a son of Don Joaquin Luna, a retired merchant of Manila, among whose sons were a distinguished physician and surgeon, a musician, a painter, and a chemist. Antonio was educated principally in Paris, France, and returned to Manila early in 1898, where he became editor of the insurgent organ *La Independencia*. On the organization of Aguinaldo's so-called government in December, 1898, Luna was first announced as the new Minister of War. He had served the War Department in the preceding Cabinet, and made himself conspicuous in fighting the Spaniards after the American victory in Manila Bay and the surrender of Manila city. Soon after Luna's second appointment to the War Department Aguinaldo gave that post to his cousin and placed Luna in immediate command of the Filipino armies, with the rank of general. Accounts differ concerning the immediate cause of his death. That the relations between Aguinaldo and Gens. Luna and Pilar had become strained to the point of rupture is beyond doubt. The first account of Luna's death declared that he and an aid were killed by the guard at Aguinaldo's headquarters in an altercation over Luna's demand to see Aguinaldo for a conference. A released Spanish officer, who witnessed the stabbing and shooting of Luna and his aid, said that Aguinaldo and Luna had had a stormy interview, caused by Luna's attempts to assume full control of affairs and Aguinaldo's issuance of secret orders to the provincial governments. Aguinaldo, fearing that Luna might attempt a deadly assault on him, posted a trusty guard

about his headquarters, with instructions to kill any one, regardless of rank, who might try to enter the house. When, therefore, Luna reappeared and demanded an interview he was repelled. He drew a revolver, struck a guard, and was trying to enter the house when he received a bayonet thrust. His remains showed 20 bayonet and bullet wounds. On July 7, after a trial, the guardsmen were acquitted of blame on the ground of self-defense.

McClannin, Robert, actor, born in Boston, Mass., May 28, 1832; died in Hartford, Conn., Sept. 18, 1899. He made his first appearance at Forbes's Theater, Providence, Sept. 3, 1853, as Lopez in *Faint Heart ne'er Won Fair Lady*. He remained a member of the company at that house until 1855, playing, among other parts, Uncle Tom in the first production of *Uncle Tom's Cabin* in that city, Dec. 3, 1854. He had become identified with the parts of old men, and filled engagements at Rice's Theater, Chicago, and at the Gaiety and St. Charles, New Orleans. In 1861 he was engaged by Maggie Mitchell for the first production of *Fanchon*, in which he originated the part of Father Barbeaud. The same year he went to the Boston Museum as first old man, making his appearance there as Dr. Playfair in *Falconer's Men of the Day*. He remained in that theater, a great favorite of the public and of his comrades in the theater, as well as of all the great players that visited Boston, seventeen years. He was especially successful as Sir Oliver Surface in *The School for Scandal*, *Old Dornton in The Road to Ruin*, *Job Thornberry* in *John Bull*, *Lord Duberly* in *The Heir at Law*, *Admiral Franklin* in *Sweethearts and Wives*, *Hardcastle* in *She Stoops to Conquer*, and *Cadwallader* in *Big Bonanza*. He next assumed a like position in Maggie Mitchell's traveling company, where he remained until her retirement in 1889. From that year he played in many productions in New York city and on the road, and for two seasons before his death had been playing *Colonel Sapt* in *The Prisoner of Zenda*.

McCoy, Thomas F., soldier, born in 1819; died in Lewiston, Pa., July 20, 1899. He entered the Mexican War as first lieutenant of the 11th United States Infantry, and was brevetted captain for gallant conduct. At *Molino del Rey*, his superior officer having fallen, he commanded the regiment and was accorded the highest praise by the brigade commander. At the outbreak of the civil war he was appointed deputy quartermaster of Pennsylvania, and in 1862 he was made colonel of the 107th Pennsylvania Volunteers. For services at the battle of Five Forks he was brevetted brigadier general. At the close of the war he returned to the practice of law.

Mace, Mrs. Frances (Laughton), poet, born in Orono, Me., Jan. 15, 1836; died in Los Gatos, Cal., in August, 1899. She was educated at Bangor High School, and in 1855 married Benjamin H. Mace, a lawyer of that city. In 1885 she removed with her husband to San José, Cal., which continued to be their home. She was widely known by the familiar poem *Only Waiting*, written when she was but eighteen years of age, the authorship of which was for a time claimed by several writers. It is included in her volume *Legends, Lyrics, and Sonnets* (Boston, 1883). Her later work is comprised in *Under Pine and Palm* (1888) and *Wild Roses of Maine* (1896).

McEnroe, William Hall, therapist, born in Charlottesville, Va., Aug. 15, 1854; died in New York city, May 17, 1899. He came to New York with his parents when fifteen years old, and was graduated at the University Medical College in

1882. He became a member of the staff of house physicians at Bellevue Hospital, and for thirteen years was Assistant Professor of *Materia Medica* in University Medical College. In 1885 he published *Notes of Materia Medica and Therapeutics as Delivered by Prof. William H. Thomson*. At the time of his death Dr. McEnroe was enlarging this work. A few days before his death he was selected for the chair of *Materia Medica* in the new Cornell Medical College.

McKane, John Young, politician, born in County Antrim, Ireland, Aug. 10, 1841; died in Sheepshead Bay, N. Y., Sept. 5, 1899. His parents emigrated to the United States in 1843 and settled at Sheepshead Bay, where his life was spent. He attended private school till the age of sixteen, became a carpenter's apprentice, and in 1866 began business for himself. The same year he was elected a constable. In 1867, as a Democrat, he was elected a commissioner of common lands, and in 1883 he became a supervisor. He then left the Democratic party, and in 1887 became president *pro tem.* of the Board of Supervisors. About this time he became known as the "autocrat of Gravesend," holding simultaneously the following public offices: Commissioner and president of the town Board of Health, president of the Police Board, president of the Water Board, and chief of police. He had such a hold upon local affairs and such a reputation for political sagacity that nearly the entire voting strength of Gravesend was controlled by him. When the ballot reform law went into effect in 1891 he ingeniously contrived to have the six election districts of Gravesend unite at the town hall, and all the polling places were under his supervision in that building. At the election held in November, 1893, the action of McKane and his followers was so infamous that ten indictments were found against him. He was convicted and sentenced to six years in Sing Sing prison. Ineffectual efforts were made to secure his pardon, and he served a term of four years and two months, commutation being made for good behavior. He was released April 30, 1898.

McKee, Mary A., benefactor, born in Brooklyn, N. Y., March 2, 1833; died in Trenton, N. J., Aug. 4, 1899. She was a widow at the outbreak of the civil war, and was one of the first nurses enlisted in the National service. She served throughout the war, was one of the most trusted aids of Dorothea L. Dix, and was the last nurse to be mustered out, being retained after the war to take charge of hospital supplies in Washington. Through the influence of Miss Dix the New Jersey State Hospital for the Insane was established, and she secured for Mrs. McKee the post of housekeeper, which she held till her death, a period of more than thirty years.

Mackellar, Duncan A., illustrator, born in Lobo, Ontario, Canada, in 1867; died in Penetanguishene, Ontario, Canada, June 4, 1899. He was of Scottish origin, and till he was eleven years old he could speak no language but Gaelic. His education was principally acquired in Toronto, and before he came to the United States he had achieved distinction by his work on the *Toronto Saturday Night* as an artist, dramatic critic, and humorous writer. In 1892 he settled in New York, and took a course in the Art Students' League and later in the Brooklyn Art School. He established himself as an illustrator in black and white, and afterward did his chief work for *Life* and *Harper's Magazine*.

MacKellar, Thomas, type founder, born in New York city, Aug. 12, 1812; died in Philadelphia, Pa., Dec. 29, 1899. He was mainly self-

educated, learned the printer's trade, and removed to Philadelphia in 1833, where he became successively proof reader, foreman, and partner with Lawrence Johnson, type founder. After the latter's death the new type founders' firm of MacKellar, Smith & Jordan was established. He was president of the Type Founders' Association of the United States and a member of several scientific societies. His published books include *Tam's Fortnight Ramble*; *Droppings from the Heart*; *Lines for the Gentle and Loving*; *The American Printer, a Manual of Typography* (Philadelphia, 1866); *Rhymes atween Times* (1873); and *Hymns and a Few Metrical Psalms* (1887).

McKinney, Philip Watkins, lawyer, born in Buckingham County, Virginia, March 17, 1834; died in Farmville, Va., March 1, 1899. He was graduated at Hampden-Sidney College in 1853, and studied law in Lexington. When twenty-one years old he was elected to the Legislature. At the opening of the civil war he was a Union man, but went with his State into the conflict. He served as captain of the Buckingham Troop under Gen. Stephen D. Lee, Wickham, and Stuart, was incapacitated for field duty by wounds at the battle of Brandy Station, and afterward was in department and staff service till the end of the war. He then settled in Farmville to practice. In 1881 he was defeated for Attorney-General of Virginia, although he ran ahead of his ticket, and in 1884 and 1888 he was a delegate to the Democratic national conventions. He was elected Governor in 1889, defeating William Mahone, Republican, by an overwhelming majority.

McLellan, Isaac, poet, born in Portland, Me., May 21, 1806; died in Greenport, Long Island, Aug. 20, 1899. He was educated at Bowdoin College, where he was intimate with Hawthorne and Longfellow, and he remained the lifelong friend of the latter. Other notable friends of his were Daniel Webster and Willis, the poet. After his graduation he studied law and practiced in Boston several years, contributing at the same time in prose and verse to magazines. In 1851 he removed to New York city, and his latest years were spent at

Greenport. He was an ardent lover of Nature and of field sports, and was often styled "the sportsman's poet." His early work in verse speedily became popular, but is unfamiliar to the present generation. His latest volume, *Poems of the Rod and Gun*, with a sketch of the author by Frederick E. Pond (New York, 1886), contains some of his best work, and is likely to remain for some time especially dear to sportsmen. The *Trout Brook* is one of his most characteristic poems. Besides the book already named, he was the author of *The Fall of the Indian*, and *Other Poems* (Boston, 1830); *The Year*, and *Other Poems* (1832); and *Miscellaneous Poems* (1844). The *Journal of a Residence in Scotland*, etc., was compiled from the manuscripts of H. B. McLellan. He was never married. His most popular poems, once familiar to all readers, were *The Death of Napoleon* and *New England's Dead*.

Macnichol, Lizzie (Mrs. Elizabeth Reitz), singer, born in Washington, D. C., in 1865, died in Chocorua, N. H., Aug. 12, 1899. She began

to study in her native city in early youth, subsequently became contralto soloist of St. Matthew's Church, and afterward held a similar place in Dr. Chapin's church and Christ Church in the same city. In 1888 she was persuaded by Gustav Heinrichs, manager of Mrs. Thurber's American Opera Company, to try her ability for the musical drama in a performance by that company in Washington, and her success was such that on June 1, 1888, she made her formal first appearance in the rôle of Lazarillo in *Maritana*. She remained two years with the American Opera Company, and in 1890 entered upon a three years' association with the Emma Juch company. She sang the contralto parts in *Il Trovatore*, *Aida*, *Lohengrin*, and other operas. At the beginning of the season of 1894 Miss Macnichol originated the light opera rôle of Flora MacDonald in the musical adaptation of *Rob Roy*. She was enthusiastically applauded in this part in the cities of the United States and Canada for three seasons. Her last years were spent as a member of the Castle Square Opera Company in Philadelphia, New York, Boston, and elsewhere. She married first Franz Vetta, who soon died, and in November, 1897, she became the wife of C. L. Reitz.

McMillan, Duncan Cameron, author, born in Rondout, N. Y., in 1848; died in Closter, N. J., March 22, 1899. For many years he was official reporter of the Ulster County Court, and later he was engaged in newspaper and general stenographic work. He was the author of works entitled *The Elective Franchise in the United States* (New York, 1878) and *Christ reflected in Creation* (1897).

Madill, Henry J., soldier, born in 1829; died in Towanda, Pa., June 29, 1899. He enlisted in the 6th Pennsylvania Reserves, June 22, 1861, and was made major. On Aug. 30, 1862, he was appointed colonel of the 141st Pennsylvania Infantry, and he led the regiment through many battles. At Gettysburg he was with his men in the peach orchard, and of the 200 that went in only 19 came out. He was made brigadier general in 1866, and brevetted major general. He held several county offices and served in the Pennsylvania Legislature in 1879-'80.

Magill, Mary Tucker, author, born in Jefferson County, Virginia, Aug. 21, 1832; died near Richmond, Va., April 29, 1899. She was a daughter of Dr. Alfred T. Magill, of the University of Virginia, and was educated there. After the civil war she conducted Angerona College for Girls, in Winchester, Va. Recently she had removed to Staunton, Va. In addition to sketches and correspondence in newspapers and periodicals, she published *The Holcombes* (Philadelphia, 1868); *Women; or, Chronicles of the Late War* (1870); *a School History of Virginia* (Baltimore, 1877); and *Pantomimes; or, Wordless Poems* (Boston, 1882).

Maguire, Nicholas H., educator, born in Burlington, N. J., Sept. 21, 1814; died in Philadelphia, Pa., June 29, 1899. He was educated at Mount St. Mary's College, Maryland, became Professor of Belles-Lettres in Laurel Hill College in Philadelphia in 1835, was chosen principal of Coates Street (now Hancock) School in the same city in 1842, and from 1858 till 1866 was principal of the Central High School. In May, 1870, he was elected principal of the Southeast Grammar School (now the Horace Binney Combined School), and he held the place till 1894, when he resigned to become supervising principal over all the public schools of the city. Prof. Maguire said that fully 20,000 boys had been under his instruction.

Malone, Sylvester, clergyman, born in Trim, County Meath, Ireland, May 8, 1821; died in Brooklyn, N. Y., Dec. 29, 1899. He studied at the academy of Mathew and Martin Carroll, in Dublin, was brought to the United States in 1839 by the Rev. Andrew Byrne, of St. James's parish, New York city, and was placed in St. Joseph's Seminary at Le Fargeville, N. Y., to continue his education. He was ordained a priest on Aug. 15, 1844, and in 1847 was appointed to the Church of Saints Peter and Paul, Brooklyn. At the beginning of the civil war he hoisted on his church spire a United States flag, which was taken down and carried to the front by Williamsburg men. In 1852 and in 1866 he was appointed theologian to Bishop Reynolds, of Charleston. In 1881 he visited Europe and Asia. He was one of the ardent supporters of Dr. Edward McGlynn. On March 29, 1894, he was elected a regent of the University of the State of New York, and Aug. 15 the golden jubilee of his ordination to the priesthood was celebrated. In 1898 he established a free library in Henry McCaddin Hall, Brooklyn.

Mannheimer, Godfrey, collector, born in Bavaria in 1839; died in New York city, June 6, 1899. He came to the United States about 1869, and for fifteen years was engaged in the dry-goods business in St. Paul, Minn., and Chicago. He then settled in New York city. He accumulated an extensive collection of paintings, porcelains, bric-a-brac, ivories, and pearls. About ten years ago he presented the large painting Justinian and his Court to the Metropolitan Museum of Art.

Marcy, Oliver, educator, born in Colerain, Mass., Feb. 13, 1820; died in Evanston, Ill., March 19, 1899. He was graduated at Wesleyan University in 1846, and was called to Northwestern University as Professor of Natural History in 1862. From 1876 till 1881 he was also acting president, and since 1881 he had been dean of the faculty. In 1876 he received the degree of LL. D. from the University of Chicago. Dr. Marcy was geologist on the Government road from Lewiston, Idaho, to Virginia City, Mont., in 1866, and was a fellow of the Royal Geographical Society. He published many addresses and essays.

Marsh, Othniel Charles, palæontologist, born in Lockport, N. Y., Oct. 29, 1831; died in New Haven, Conn., March 18, 1899. He was a nephew of George Peabody, the philanthropist, and was graduated at Yale in 1860, after which for two years he studied science in the Sheffield School. He then went abroad, and for three years devoted himself to studies of zoology, mineralogy, and geology in Berlin, Heidelberg, and Breslau. Returning to the United States, he was made Professor of Palæontology at Yale in 1866, which chair he held until his death. He spent his vacations in exploring ex-



peditions, and saw the famous localities in this country and abroad. He first visited the Rocky mountain region in 1868, learned of the inexhaustible fossil riches of that territory, and organized the Yale scientific expedition, which he conducted to the West in 1870, 1871, 1872, and 1873. Thereafter he depended upon local collectors and small parties for the work of gathering fossils. From 1882 till his

death he was vertebrate palæontologist to the United States Geological Survey, although his field work for that survey terminated in 1892. More than 1,000 new fossil vertebrates were discovered by him, and more than half of these were described and classified by him. Among his more important discoveries are a new subclass of birds with teeth, which he called *Odonornithes*, and the first known American pterodactyles; two new orders of large mammals from the Eocene Tertiary of the Rocky mountains—the *Tillodontia*, which appear to be related to the carnivores and ungulates, and the *Dinocerata*, animals of elephantine bulk, bearing on their heads two or more horn cores; also, from the same formation, the *Epihippus*, or the early ancestors of the modern horse, and the first lemuroids, bats, and marsupials ever found in this country. He also discovered several new families of dinosaurs, probably the largest land animals yet discovered. In consequence of his influence Mr. Peabody presented to Yale the fund from which has been erected the Peabody Museum, of which Prof. Marsh was curator. In 1898 he presented his own collections to the university. Of the material collected and described by him Charles Darwin wrote: "Your work on these old birds and the many fossils and animals of North America has offered the best support to the theory of evolution that has appeared in the last twenty years." In 1877 he was the recipient of the first Bigsby medal awarded by the Geological Society of London, and in 1898 he received the valued Cuvier prize of the French Academy of Sciences. He was made honorary curator of vertebrate palæontology in the United States National Museum in 1887. In 1886 the degree of LL. D. was conferred on him by Harvard, and that of Ph. D. by Heidelberg. He was president of the American Association for the Advancement of Science in 1878, and from 1883 till 1895 was president of the National Academy of Sciences. Prof. Marsh was an honorary or corresponding member of the Institute of France and the Academies of Science in Bologna, Brussels, Copenhagen, Munich, and Philadelphia. His bibliography contains 237 titles. His work included Odontornithes: A Monograph on the Extinct Toothed Birds of North America (Washington, 1880); Dinocerata: A Monograph of an Extinct Order of Gigantic Mammals (1884); and The Dinosaurs of North America (1896). A memoir, with portrait and complete bibliography, by Charles E. Beecher, was published in the American Journal of Science for June, 1899. (See GIFTS AND BEQUESTS.)

Marvin, Selden Erastus, banker, born in Jamestown, N. Y., Aug. 20, 1835; died in New York city, Jan. 19, 1899. He studied law with his father, Judge Richard P. Marvin, but, finding the profession uncongenial, became teller in the Chautauqua County Bank. In 1862 he was appointed adjutant of the 112th New York Volunteers, and in that office and as assistant adjutant general of Gen. Foster's brigade and the Army of Southern Virginia he served through the Peninsula and Charleston campaigns till September, 1863, when he was appointed a paymaster and assigned to the Army of the Potomac. On Dec. 27, 1864, he resigned from the army to become paymaster general on the staff of Gov. Fenton, of New York. When Gov. Fenton was re-elected he appointed Gen. Marvin his Adjutant General, and he held this office till 1868. As paymaster general of New York Gen. Marvin reimbursed the different committees of the State for bounties to fill the quotas established by the Federal

Government, handling about \$27,000,000, and as Adjutant General he instituted many needed reforms in the National Guard. At the expiration of his term he engaged in banking in New York. In 1874 he removed to Troy, and in 1875 he organized the Albany and Rensselaer Iron and Steel Company, becoming its secretary and treasurer. At the time of his death he was president of the Albany City Savings Institution and of the Hudson River Telephone Company and a member of the State Board of Charities.

Mason, Theodorus Bailey Myers, naval officer, born in New York city, May 8, 1848; died in Saugerties, N. Y., Oct. 15, 1899, from causes incident to exposure while on the active list. He was baptized Theodorus Bailey Myers, but was adopted by his maternal grandfather, Sidney Mason, a New York merchant, and took his name. He was appointed a midshipman from Florida, Sept. 20, 1864; was graduated at the Naval Academy in 1868; promoted ensign, April 19, 1869; master, July 20, 1870; lieutenant, Nov. 20, 1872; lieutenant commander, Jan. 23, 1894. He served with distinction on the South Atlantic and Pacific stations; was executive officer of the

Atlanta, of the home squadron; was detached and assigned as executive officer to the New York, then building at Cramp's shipyard, Philadelphia, to supervise her completion and went to sea on her in that capacity. On July 19, 1894, condemned by medical survey on account of illness incurred by excessive work on the New York, he was ordered home, and

on Dec. 8, 1894, was retired. He organized the office of naval intelligence, and brought it to a high state of efficiency. He was naval aid to Presidents Grant and Arthur and Secretary Robeson, and naval secretary to Secretaries Whitney and Tracy. On May 11, 1876, he was detailed as instructor in ordnance and light artillery at the Naval Academy, and in 1879 was assistant inspector of ordnance at the West Point foundry. He commanded the light artillery in a naval expedition to the Isthmus of Panama in 1885. He volunteered for the Greely search expedition, the Chilean imbroglio, and the Spanish-American War, and bore a conspicuous part in suppressing several isthmian *émeutes* threatening the interests of the Panama Railroad. For saving two of the ship's crew from drowning in the harbor of Rio Janeiro in 1869 he received a gold medal from the New York Benevolent and Life Saving Institution and the decoration of the Order of the Rose from the Emperor of Brazil, and in 1873 he received a silver medal from the King of Italy in recognition of his distinguished bravery in the harbor of Callao, Peru, for saving the burning Italian bark *Detaid*, laden with powder. He was accredited in 1874 to different legations in Europe for facilities to report on naval matters, was made life fellow of the Society of Civil Engineers of France, Nov. 22, 1878; acted as aid to President McMahon of France at the grand review and

manœuvres closing the exposition, in Paris, of 1878; and was elected a life fellow of the American Geographical Society, Dec. 13, 1878. Sept. 14, 1883, he was ordered by the President to meet and accompany the first embassy from Korea to the United States, and on April 29, 1884, was ordered on the same duty with the first embassy from Siam to this country. In 1891 he received a commendatory letter from the Secretary of the Navy for his bravery and energy during a heavy gale in suppressing a fire on the *Atlanta*, occasioned by an explosion in the paint room, which blew off the hatch, destroyed the bulkheads, and ignited the woodwork, while the ship was in danger of foundering. He made important reports on the war between Peru, Bolivia, and Chili. He also wrote the text-book for Naval Artillery Drill and other professional works of merit, and was untiring in advancing the interests of the service in which he was one of the brightest members.

Mathews, Felix A., consular officer, born in Tangier, Morocco, in 1834; died there, April 17, 1899. He went to California when eight years old, and when fourteen entered the United States navy. After serving on the *Constitution* and at the Mare Island Navy Yard till 1857, he became United States marshal for the northern district of California. At the outbreak of the civil war he organized the 1st California Cavalry, of which he was commissioned colonel. He was United States consul to Tangier in 1866-'87, was reappointed in 1890, and the same year was promoted to consul general, and resigned in 1893.

May, Samuel, clergyman, born in Boston, Mass., April 11, 1810; died in Leicester, Mass., Nov. 24, 1899. He was graduated at Harvard College in 1829, in the class with Oliver Wendell Holmes and James Freeman Clarke, and at the Divinity School, Cambridge, in 1833. From 1834 to 1846 he was pastor of the Unitarian Church in Leicester, but he resigned in the latter year, his strong antislavery principles not being acceptable to some of his parishioners. He, however, continued to make Leicester his home for the rest of his long life. From 1847 to 1865 he was general secretary of the Massachusetts Antislavery Society, and for several years held the same office in the American Antislavery Society. He was a contributor to the *Liberator* and the *Antislavery Standard*, and his activities in behalf of reform were unbounded. He was the last survivor of the earlier generation of antislavery leaders, and remained to the close of his career keenly alive to questions bearing upon reform. His only published work was *The Fugitive Slave Law and its Victims*.

Maynard, Effingham, publisher, born in Massachusetts in 1830; died in Saratoga Springs, N. Y., Nov. 19, 1899. He removed to New York city when young and found employment in a publishing house. Later he entered business for himself, and about 1890, when several publishing houses consolidated their schoolbook lists and formed the American Book Company, Mr. Maynard refused to enter the combination. About this time he became associated with Edwin C. Merrill in the Maynard-Merrill Company, publishers of schoolbooks. At the time of his death he had been president of the company several years.

Medill, Joseph, journalist, born in St. John, New Brunswick, April 6, 1823; died in San Antonio, Texas, March 16, 1899. In 1831 the family removed to Massillon, Ohio, and engaged in farming. Joseph worked on the farm several years, spending his leisure in study, and walking 9

miles on Saturdays to receive instruction in Latin, logic, and physics from a clergyman in Canton. He studied law, and was admitted to the bar at Canton in 1846. After two years of practice at New Philadelphia he bought the Coshocton Republican, a weekly Whig newspaper, and conducted it for two years, when he decided to abandon the law for journalism. In 1851 he established at Cleveland the Daily Forest City, and in the following year united it with the Free Democrat, under the new name of the Cleveland Leader. He urged the organization of a new political party for the express purpose of preventing the extension of slavery, and was one of twelve men who were the nucleus of the Republican party in Cleveland in 1854. In 1855 he sold his interest in the paper and joined others in buying the Chicago Tribune. Under his editorial direction this journal soon became an aggressive antislavery organ, exerting wide influence and achieving financial success. Throughout the civil war Mr. Medill sustained the Administration with all his powers. He urged the proclamation of emancipation long before it was made. Later he opposed President Johnson's scheme of reconstruction, defended the impeachment proceedings, and supported the reconstruction acts of Congress. Early in 1868 he began urging Gen. Grant for the presidency. In 1870 Mr. Medill was a member of the Illinois Constitutional Convention, and in 1871 he was appointed a member of the first Civil Service Commission. He prepared a special report favoring a single presidential term of six years, but before he was able to urge his proposed reform Chicago was devastated by the great fire, and he was elected mayor of the stricken city. During his tenure of this office he secured a new charter for the city, and had much to do with establishing the Chicago Public Library and the city exposition building. He declined a renomination, returned to journalism, and in 1874 bought a controlling interest in the Chicago Tribune, and became its editor in chief. In 1882-'83 he inaugurated the high license and local option movement in Illinois, and in 1888-'89 carried on an agitation for annexation to the city of its thrifty suburbs. Both movements were successful.

Mergenthaler, Ottmar, inventor, born in Württemberg, Germany, May 10, 1854; died in Baltimore, Md., Oct. 28, 1899. He learned the trade of watchmaker in his native place, and at the age of eighteen came to this country, penniless and friendless. His first work was in the service of the Government in Washington. There he was employed four years on the mechanism of clocks and bells and signal service apparatus. His inventive genius manifested itself in several improvements which he made in signal service apparatus, and in 1876 he became connected with a mechanical engineering firm in Baltimore, and made his home in that city. The conception of the linotype was due primarily to James O. Clephane, a Washington stenographer, who had made the study of writing and printing machines a hobby for twenty years. Mr. Clephane employed the Baltimore firm to make some models from the drawings of a Western inventor, and Mr. Mergenthaler, who showed much aptitude in the work, took an interest in the idea of inventing a typesetting machine, and began to make experiments on his own account. For four years he devoted all his spare time to the invention of the machine. His first idea took the form of a rotary machine, with keys for impressing female dies in a continuous strip of heavy paper, which was cut into short lengths for adjustment as the matrix of a column of type. This was

superseded by a machine controlling a series of sliding bars, each bearing on one edge all the characters and spaces. A key mechanism moved these bars endwise, so as to bring a selected character on any bar in line with a selected character on any other, and thus form the matrix of a complete line of casting. In 1880 he made a complete change of system, and adopted the plan that he brought to perfection in the linotype. Finally he had a machine that, by action of a keyboard something like a typewriter, would set a line of key dies or types, justify it to any exact width, and cast it into a solid line of lead or type metal. Yet his work was not done, for after he had accomplished all this and had secured his patents another obstacle seemed to baffle him. Men of money discredited his machine even after they had seen it work. Publishers said it was impracticable. They were willing to try his device, but they did not care to take any risks. He at last succeeded in organizing a company with small capital, which in the next three years was consumed in efforts to place the linotype in the composing room of some daily newspaper. The machine had a trial by the New York Tribune, but its work was still crude. It was not until the linotype company bought the Rogers spacer that the machine became a success.

Merrill, Samuel, Governor, born in Turner, Me., Aug. 7, 1822, died in Los Angeles, Cal., Aug. 31, 1899. He received a common-school education, and in 1847-'56 was engaged in business in New Hampshire and served two terms in the Legislature. In 1856 he went to Iowa, and in 1860 was elected to the Legislature of that State. He entered the National army as colonel of Iowa volunteers in 1862, and served till seriously wounded at Black River Bridge. In 1868-'72 he was Governor of Iowa.

Miles, William Porcher, lawyer, born in Charleston, S. C., in July, 1822; died in Burnside, La., May 11, 1899. He was graduated at Charleston College, and was for several years assistant Professor of Mathematics there. In 1855, when yellow fever was raging in Norfolk, Va., he volunteered for relief work in that city, and on returning to Charleston was elected mayor with no opposition. He inaugurated a new police system and the system of tidal drains. In 1856, 1858, and 1860 he was elected to Congress. He was elected to the South Carolina convention that adopted the ordinance of secession, and after the convention he resigned his seat in the Federal Congress, became a colonel in the Confederate army, and was a member of the Confederate Congress. After the war he lived in retirement till 1877, when he was chosen president of the University of South Carolina. He occupied this office several years, resigning to take the management of the large sugar plantation that had come to his wife from her father.

Miley, John David, military officer, born in Illinois about 1864; died in Manila, Philippine

Islands, Sept. 19, 1899. He was graduated at West Point in 1887, and entered the army as an additional second lieutenant in the 5th Artillery. The same year he was transferred to the 4th Artillery as second lieutenant, and then to the 5th. He was promoted first lieutenant, Feb. 3, 1894, and was transferred to the 2d Artillery, May 4, 1898. In the volunteer service for the war against Spain he was commissioned major and assistant adjutant general, July 12, 1898, and lieutenant colonel and inspector general on Sept. 8. At the beginning of the war he became an aid-de-camp on the staff of Gen. Shafter, and first distinguished himself as an executive officer in relieving the congestion at Tampa, Fla., incident to the debarkation of the 5th Army Corps for Cuba. Later he made himself indispensable to his chief by his sound judgment and his enormous capacity for detailed work. He displayed conspicuous bravery in the fight on July 1, and was appointed a commissioner with Gens. Wheeler and Lawton to negotiate terms for the surrender of Santiago. After Gen. Toral surrendered the city and the Spanish forces under his command Major Miley was sent into the interior to receive the surrender of the garrisons there, which duty he accomplished with unusual tact in view of the fact that these garrisons had not been informed of the surrender at Santiago. At the close of the campaign Gen. Shafter recommended the promotion of his aid to brigadier general of volunteers. After his return to the United States, and at his own request, Major Miley was detailed to duty on the staff of Gen. Otis, who appointed him inspector general and, later, collector of the port. He published *In Cuba with Shafter* (1899).

Miller, Henry Carlton, jurist, born in Covington, La., in 1828; died in New Orleans, La., March 5, 1899. He studied law with his father, who for many years was reporter of the Supreme Court of Louisiana. On the secession of the State he resigned his office of United States attorney, and soon afterward was appointed district attorney of the Confederate States. After the war he resumed private practice. He became counsel for large corporations and also for the New Orleans Board of Liquidation, and for the latter he prepared the plan under which the debt of the city was settled. For several years he was Professor of International Law in Tulane University, and at his death he was dean of its law college. In 1894 he became an associate justice of the Supreme Court of Louisiana, and two years later he was reappointed for a term of twelve years.

Miller, Lewis, philanthropist, born in Greentown, Ohio, in 1829; died in New York city, Feb. 17, 1899. In early youth he was apprenticed to the machinist's trade, and after serving his time he opened a shop in Canton and manufactured agricultural implements. He was one of the first to produce a practical reaping and binding machine, and he brought out a variety of mowing and thrashing machines of his own designing. His ventures were so successful that five years after establishing himself in Canton he erected an additional and much larger plant in Akron, and a few years thereafter he put up a third plant in Mansfield. From boyhood he was actively employed in Sunday-school work, and soon after going to Akron he established a Sunday school that was at that time unique, and that became known as the model Sunday school of the country. He built a semicircular school-room with large sliding doors, by means of which the classrooms could be converted into a commodious auditorium. Piano and cornet music was introduced, and every effort was made to

render the Sunday-school hour attractive. In 1873 he laid before Bishop John H. Vincent and other Methodist clergymen the scheme since developed into the Chautauqua Assembly. Scarcely a change was made in his original plan, and the assembly was organized on a strictly nonsectarian basis, with himself as the first and only president till his death. Mr. Miller acquired large wealth, and gave handsome sums to religious and charitable institutions.

Moody, Dwight Lyman, evangelist, born in Northfield, Mass., Feb. 5, 1837; died there, Dec. 22, 1899. For a hundred years the family of Mr. Moody has lived in the beautiful town where he was born and where he died. It is the site of the great schools which in his later years he founded and built up, representing an outlay of nearly \$1,000,000, and having at the present time about 1,000 pupils, boys and girls, located severally in the Northfield Seminary and the Mount Hermon School for Boys. His father died when he was little more than an infant, leaving him, 7 brothers, and 1 sister a care upon his widowed mother, who struggled heroically through all the years of his youth to keep her home and rear her family, which amid great but cheerful and hopeful poverty she did. Mr. Moody's education was such only as a not particularly studious boy might gain at the intermitting district schools of his neighborhood. At the age of seventeen he went to Boston to seek his fortune. He was for two years a clerk in a shoe store, during which time he was converted and united with the Mount Vernon Congregational Church, Rev. Dr. Kirk, pastor. In 1856 he removed to Chicago, and engaged actively in Sunday-school mission work, gathering a Sunday school of more than 1,000 pupils. Two years later he gave up business entirely to devote himself to Christian work. He was in service in connection with the Christian Commission during the civil war, and after the war he took up work as general missionary of the Young Men's Christian Association in Chicago, and practically became the head of that movement. He built a church for his Sunday school and the converts gathered through his intense ministry in Chicago. This church was burned in the great fire of 1871, but was rebuilt, and is now known as the Chicago Tabernacle, one of the largest church buildings in the country, to which has been attached the great Chicago Training School for lay Christian workers and foreign missionaries. Mr. Moody was much devoted to evangelistic work during this period. He had twice visited England, but on tours of observation rather than for active work. In the summer of 1871 he was joined by Ira D. Sankey, his famous colleague. Quite unknown to the English Christian world, they together, in 1873, visited Great Britain, and in York began work in a very obscure and quiet way. The work grew rapidly, and the fame of it spread. Subsequently, by invitation, they visited Sunderland, Newcastle-on-Tyne, and other places. They were visited by important delegations from Edinburgh, and accepted an invitation to that city, where their work was greatly blessed, even to the revolutionizing of the spiritual methods and conditions throughout Scotland. All Scotland was aroused, and great meetings followed in Glasgow, Dundee, and other centers. Thence they went to Ireland, where they visited the chief cities, and wrought with equal success; and thence back to England, holding enormous meetings in Liverpool, Manchester, Birmingham, and London. In the latter city the meetings in Agricultural Hall called out audiences of 10,000, 15,000, and 20,000. On one occa-

sion 17,000 men gathered to hear him. Great interest was now awakened in this country, to which he returned in 1875. Immense meetings were begun in Philadelphia, continuing from November, 1875, to Jan. 16, 1876; then similar meetings were held in New York from February to April, 1876; then in Chicago from October, 1876, to January, 1877; and then in Boston in February, 1877, where an immense tabernacle was built at a cost of \$40,000, and where for four months 3 meetings were held daily, with 5,000 to 10,000 persons in attendance. Most of the principal cities of the United States were in a similar manner visited by Mr. Moody and his singing companion, Mr. Sankey, who continued his coadjutor until the end of his life. They revisited Great Britain in 1881, practically going over the old ground in Scotland and England, and meeting with great success. This campaign lasted the greater part of three years. After a brief return for five months to the United States, they went again to London, in the autumn of 1883, for the great campaign, and with the aid of 3 large movable tabernacles, each with a seating capacity of 7,000 to 10,000 persons, every part of that vast city was reached, and many thousands of men and women were converted to Christ. Mr. Moody's last visit abroad was to Scotland, in 1891, when he preached in 99 towns and cities. Thence he went for a brief visit to Palestine (his only holiday), and returned to the United States, never again to leave his own land. In the interval between these more conspicuous campaigns he was a tireless worker. In 1879 Mr. Moody opened a small school in his own house in Northfield for the education of poor but clever girls from the immediate vicinity, and in 1880 the foundation of the first of the now famous school buildings was laid. These buildings have risen to more than 50 in number, all substantially built of brick and stone, and the whole plant representing a cost of about \$1,000,000, with nearly 1,000 pupils. For twenty years Mr. Moody devoted his summers to these schools and to the conduct of the great Northfield summer religious conferences. His last work was in Kansas City, in the winter of 1899, where he was addressing audiences of 5,000 persons daily. In the midst of one of these meetings he was stricken with heart failure. He lived to get to his home in Northfield, where he died and is buried, beloved and mourned by millions of people who had been blessed by his ministry. His most conspicuous characteristics were his singleness of purpose, his undying enthusiasm, his indomitable will, his great common sense, his mastery of men, his great organizing ability, and his wonderful power of speech, together with that mysterious quality which we call personal magnetism. It is estimated that he addressed more than 50,000,000 persons during the course of his public life. His publications include *The Second Coming of Christ* (1877); *The Way and the Word* (1877); *Secret Power, or the Secret of Success in Christian Life and Work* (1881); and *The Way to God, and How to Find it* (1884). Besides these, several collections of his sermons appeared in book form. His published sermons and addresses have been translated into most of the languages of Europe and into some of the Oriental tongues, and their circulation has been enormous.

Moonlight, Thomas, diplomatist, born in Forfarshire, Scotland, in 1832; died in Leavenworth, Kan., Feb. 7, 1899. He came to the United States in 1846. At the beginning of the civil war he enlisted in the regular army, and during its progress he was commissioned colonel of vol-

unteers. In 1869 he was elected Secretary of State of Kansas, in 1873 a State Senator, in 1883 became Adjutant General, and in 1886 was defeated as Democratic candidate for Governor. In December, 1886, he was appointed Governor of Wyoming Territory. Early in 1894 he was appointed minister to Bolivia.

Moore, Clara Jessup, author, born in Philadelphia, Pa., Feb. 16, 1824; died in London, England, Jan. 5, 1899. She was a daughter of Augustus E. Jessup, the scientist of Major Long's expedition to the Yellowstone in 1816, and the widow of Bloomfield H. Moore, a paper manufacturer, from whom she inherited large wealth. She was educated in New Haven, Conn., was married in Philadelphia in 1842, and became a widow in 1878. More than a quarter of a century ago she became widely known as a writer of fiction and poetry, under the name of Mrs. Clara Moreton. Soon after the civil war began she established the Women's Pennsylvania Branch of the United States Sanitary Commission and the special relief committee for hospital work, and later projected and aided in founding the Union Temporary Home for Children in Philadelphia. About 1880 she established the Bloomfield Moore Art Collection in the Franklin Institute, Philadelphia, and afterward she provided the means for enlarging and maintaining that collection. In 1887 she made her permanent residence in London. From about 1881 till his death, in 1898, John E. W. Keely, of mysterious motor fame (see *Annual Cyclopædia* for 1898, page 551), was dependent on Mrs. Moore's bounty. She appeared to have implicit confidence in his integrity and theories, and supplied him with the means both to live and to continue his "experiments." The revelation of his imposition gave her a shock from which she never recovered. Mrs. Moore's publications include *The Diamond Cross* (Philadelphia, 1857); *Mabel's Mission*; *Master Jacky's Holiday*; *Poems and Stories* (1875); *On Dangerous Ground* (1876); *Sensible Etiquette* (1878); *Gondaline's Lesson* (1881); *Slander and Gossip* (1882); *The Warden's Tale*, and *Other Poems, New and Old* (London, 1883); and *Ether, the True Protoplasm*, in which she tried to explain the secret of Keely's alleged discovery (1885).

Moran, Mary Nimmo, artist, born in Strathavon, Scotland, May 16, 1842; died in East Hampton, Long Island, Sept. 25, 1899. She became the pupil of Thomas Moran, the artist, and married him in 1863. Continuing her studies, she devoted some years to painting, both in oil and in water colors, and exhibited in the National Academy and in the American Water-color Society. She went abroad with her husband in 1867, and studied in the galleries of Europe. In 1872 they removed from Philadelphia to New York, and in 1884, they established their summer home in East Hampton. In 1874 Mrs. Moran made a tour of the far West. Although she is best known as an etcher, her canvases possessed an equal charm for their truthfulness. Nearly all her works, whether paintings or etchings, were made directly from Nature. Her first etching—a bridge over the Delaware, at Easton, Pa.—showed a remarkable perception of the requirements of the art. This was followed by others, in which she developed such strength of technical skill and individuality of expression that she was elected to membership in the New York Etching Club and in the Royal Society of Painter-Etchers of London. Her style shows great originality, broad treatment, and bold execution. To the Exhibition of the Woman Etchers of America, at the New York Union League Club, in 1888,

Mrs. Moran contributed 68 examples of her work, many of the plates being large. Her more important etchings include East Hampton Barrens, Twilight, Twixt the Gloaming and the Mirk, Point Isabel, Fla.; The Goose Pond, East Hampton; Georgica Pond, An Old Homestead, East Hampton; A California Forest, and The Haunt of the Muskrat. At the Chicago Columbian Exposition, in 1893, she received a medal and a diploma for etchings. Mrs. Moran had a finely cultivated intellect and a wide range of interests, including intimate

knowledge of trees and flowers and practical work among them. As wife, mother, home maker, neighbor, and friend she possessed all the qualities that brighten life and dignify womanhood—a rounded character, perfect in its naturalness and simplicity.

Murray, James Ormsbee, educator, born in Camden, S. C., Nov. 27, 1827; died in Princeton, N. J., March 27, 1899. He was graduated at Brown University in 1850, spent a year there as instructor in Greek, and was graduated at Andover Theological Seminary in 1854. Soon afterward he was called to the pastorate of the Congregational Church at South Danvers (now Peabody), Mass., where he remained till 1861. He then spent four years with the Prospect Street Church in Cambridgeport, which he left to become the associate of the late Rev. Dr. Gardiner Spring, in the Brick Presbyterian Church, New York. On the death of Dr. Spring, in 1873, Dr. Murray succeeded to the pastorate. His connection with Princeton University began in 1874, when he was elected Professor of Belles-Lettres and English Language and Literature. In 1886 the office of dean of the faculty of Princeton was created, and Dr. Murray was chosen its first incumbent. He was also elected a trustee of the college in 1867 and 1883. In 1867 he received the degree of D. D. from Princeton, and in 1885 that of LL. D. from Brown. The respect in which he was held by the students is best attested by the fact that he never was nicknamed, but was always spoken of as Dr. Murray or the dean. He was especially popular in his lectures on the poets, dramatists, and prose writers of the seventeenth, eighteenth, and early part of the nineteenth centuries. His publications include *Life of Francis Wayland*; *George Ide Chace: A Memorial*; *Introduction, with Bibliography, to Cowper's Poetical Works*; *William Gammell: A Biographical Sketch, with Selections from his Writings*; *Lectures on English Literature*; and a compilation of Church hymns, *The Sacrifice of Praise*.

Nafsiger, Christian, clergyman, born in Hesse-Nassau, Germany, May 30, 1819; died in Hopedale, Ill., March 6, 1899. He was educated at Augsburg, Bavaria. In 1845 he settled in Pekin, Ill., and in March, 1855, he was appointed minister of the Amish Mennonite Church, at Hopedale, Ill., and in October, 1861, was made its senior bishop. He furnished the site and superintended the erection of the present church.

Neely, Henry Adams, clergyman, born in Fayetteville, N. Y., May 14, 1830; died in Portland, Me., Oct. 31, 1899. He was graduated in 1849 at Hobart College, where he was subsequently tutor. He took deacon's orders in the Episcopal Church in 1852, and was admitted to the priesthood in 1854. He was successively rector of Calvary Church, Utica, N. Y. (1853-'55), and Christ Church, Rochester, N. Y. (1855-'62), and from 1862 to 1864 was chaplain of Hobart College. From 1864 he was an assistant at Trinity Church, New York city, till he was elected Bishop of Maine in October, 1866. For some years he was rector of St. Luke's parish, Portland, but on the establishment of a diocesan fund for the support of the episcopate he resigned this office. Through his efforts St. Luke's Cathedral and the bishop's residence were erected, and he was instrumental in establishing St. Catherine's Hall as a girls' school, at Augusta, and St. John's School for Boys, at Presque Isle. He was an extremely conservative High Churchman, his doctrinal position not differing essentially from that of the early Tractarians in England. In the matter of ceremony he was not a ritualist, and the service at St. Luke's Cathedral was very simple. Yet he was a broad-minded man in spite of his theological position, and was on cordial terms with clergymen of his Church who held views widely differing from his, as well as with clergymen of other churches.

Newman, John Philip, clergyman, born in New York city, Sept. 21, 1826; died in Saratoga, N. Y., July 5, 1899. He studied theology, was received into Oneida Methodist Episcopal Conference, and began preaching in 1840. His first pastorate was in Canastota, N. Y. In 1855 he was transferred to Troy Conference, and in 1857 was appointed to a charge in Albany, where he began to attract attention as a preacher. In 1860-'61 he studied abroad and visited Egypt and Palestine. On his return he was stationed in Hamilton and Albany, N. Y., in New York city, and in 1864-'69 in New Orleans, where he established several conferences, two colleges, and the *New Orleans Advocate*. In 1869 he was called to the Metropolitan Church in Washington, D. C. He was pastor there three years, and again in 1875-'78. He was chaplain of three Congresses, and was appointed by President Grant inspector of United States consulates in Asia. In 1879 he went to the Central Methodist Church, New York city, and in 1882 to Madison Avenue Congregational Church, where he remained two years. He then visited California, returning East in season to be with Gen. Grant in his fatal illness. In 1885 he entered on a third pastorate of the Metropolitan Church, and three years later he was elected bishop. He received the degree of D. D. from the University of Rochester in 1883, and of LL. D. from Grant Memorial and Otterbein Universities in 1881. Bishop Newman was noted for his eloquence. His publications include *From Dan to Beersheba* (New York, 1864); *Babylon and Nineveh* (1875); *Christianity Triumphant* (1884); *Evenings with the Prophets on the Lost Empires and America for Americans* (Washington, 1887); and *The Supremacy of Law* (1890).

Nichols, Henry E., naval officer, born in New York; died off Paranaque, Philippine Islands, June 10, 1909. He entered the United States Naval Academy, Oct. 1, 1861, and was promoted ensign, Dec. 1, 1866; master, March 12, 1868; lieutenant, March 20, 1869; lieutenant commander, Jan. 1, 1881; commander, June 25, 1891; and captain, March 3, 1899. He served

on ordnance duty in Pittsburg, on the Coast Survey in 1876-'77, on the European station in 1878, and again on the Coast Survey, as commander of the Hassler, in 1880-'84. In 1886-'87 he was inspector of one of the new steel cruisers, in 1887-'90 again on the Coast Survey, and in 1897 took command of the Bennington, with which he joined Admiral Dewey's fleet at Manila in July, 1898. On Jan. 26, 1899, he received command of the double-turret monitor Monadnock, on which he performed an unusual amount of work, as his vessel was especially relied on to assist the army in the movements north of Manila. For nearly two months prior to his death the Monadnock had been lying off Paranaque, under fire almost daily from the insurgents. The heat was intense, and officers and crew suffered so severely that Admiral Dewey wished to relieve the Monadnock with another ship, but Capt. Nichols and his men preferred to remain till Paranaque was captured. On June 10 the Monadnock was engaged all day in shelling the insurgent trenches. While the fight was in progress Capt. Nichols was overcome by the heat, and he died a few hours later.

Oglesby, Richard James, lawyer, born in Oldham County, Kentucky, July 25, 1824; died in Elkhart, Ill., April 24, 1899. At eight years old he was taken into the family of an uncle, with whom he removed to Decatur, Ill., in 1836. He

learned the carpenter's trade, and worked at it, at farming, and at rope making till 1844, meanwhile applying all his spare time to study. In the autumn of 1845 he was licensed to practice law. He enlisted in the 8th Illinois Infantry in 1846, was elected a lieutenant before leaving home, and with his regiment took part in the siege of Vera Cruz



and the battle of Cerro Gordo. Returning to Decatur in 1847, he took an additional course of study at the Louisville Law School, where he was graduated in 1848. In 1849 he went to California, where he worked two years in the mines, and then resumed practice in Decatur. He was elected to the State Senate in 1860, and served during that session, but early in 1861 he resigned to enter the army as colonel of the 8th Illinois Volunteers. He commanded a brigade at the capture of Forts Henry and Donelson; was promoted brigadier general of volunteers, March 21, 1862; distinguished himself at the battles of Pittsburg Landing and Corinth, where he was wounded and disabled from duty till April, 1863; and was promoted major general, to date from Nov. 20, 1862, and assigned to the command of the 16th Corps. In May, 1864, he resigned his commission because of his wounds, leaving the service with the reputation of being the most-beloved officer in the Western army. He was elected Governor of Illinois as a Republican in November, 1864, and in 1872 was elected for a second term. A few days after his second inauguration he was elected to the United States Senate, and in 1878 declined a re-election. In November, 1884, he was again elected Governor, and after this term he retired to private life. During his first term as Governor he was active in carrying out war measures.

O'Hara, William, clergyman, born in Limavady, County Derry, Ireland, in 1817; died in Scranton, Pa., Feb. 3, 1899. In 1820 he accompanied his parents to Philadelphia. He was graduated at Georgetown College, and there spent several years at the Urban College of the Propaganda, Rome. In 1843 he was ordained, and during the following thirteen years he was pastor of St. Patrick's Church, Philadelphia. He was also for many years rector and professor in the Theological Seminary of St. Charles Borromeo. In 1860 he was appointed vicar general of the diocese of Philadelphia, and in 1868, when the diocese of Scranton was set off, he was chosen its first bishop. His jurisdiction comprised Luzerne, Lackawanna, Bradford, Susquehanna, Wayne, Tioga, Sullivan, Lycoming, Pike, and Monroe Counties, which then together had only 50 Roman Catholic churches, 28 priests, and 1 religious community. Twenty years afterward the diocese had 74 churches, 79 priests, 46 stations, and 12 convents.

Ormiston, William, clergyman, born in Symington, Lanarkshire, Scotland, April 23, 1821; died near Los Angeles, Cal., March 19, 1899. When thirteen years old he went with the family to Canada, settling about 40 miles from Toronto. He was graduated at Victoria College, Cobourg, Canada, in 1848, and in 1849 was ordained to the ministry of the United Presbyterian Church. During 1849-'53 he held a pastorate at Clark, Canada; in 1853-'57 he was mathematical master and lecturer in natural philosophy and chemistry in Toronto Normal School; in 1854-'57 was examiner in Toronto University; and in 1853-'63 was superintendent of classical schools in the province of Ontario. From 1857 till 1870 he was also pastor of the Central Presbyterian Church in Hamilton, Ontario. In the last year he accepted a call to the Collegiate Reformed Church in New York city, where he ministered till 1888, when a throat affection caused him to resign. He then removed to California, and for six years discharged pastoral duties in the Presbyterian Church at Pasadena. In 1859, while Moderator of the United Presbyterian Synod of Canada, he initiated a movement that resulted in 1861 in the union of the United Presbyterian and the Free Churches, and in 1869 he was Moderator of the united synods. He received the degree of D. D. from the University of the City of New York in 1865, and that of LL. D. from Victoria College in 1881.

Orton, Edward, geologist, born in Deposit, N. Y., March 9, 1829; died in Columbus, Ohio, Oct. 16, 1899. He was graduated at Hamilton College in 1848, and studied theology at Lane and Andover Seminaries, after which he studied in Lawrence Scientific School of Harvard. In 1856 he was called to the chair of Natural Science in the normal school in Albany, N. Y., where he remained until 1865, when he accepted a similar chair in Antioch College, Yellow Springs, Ohio, of which institution in 1873 he became president. On the organizing of the Ohio State Agricultural and Mechanical College in 1873 he was called to its presidency, with special charge of the department of geology. In 1880 he resigned the higher office, but retained his professorial charge. The splendid collection of specimens from every part of the State was gathered by him, and when a building was erected to receive the collections it was named Orton Hall. In 1869 he was appointed an assistant on the Geological Survey of Ohio, and he continued in that service until 1875. Later he returned to the survey, and in 1881 was made State geologist, in which office he continued until

his death. He was also at various times in the service of the United States Geological Survey and the Geological Survey of Kentucky. In 1884-'85 he presided over the Ohio State Sanitary Association, and later over the Ohio Academy of Sciences. He was chosen president of the Geological Society of America in 1896, and two years later of the American Association for the Advancement of Science. The degree of Ph.D. was conferred on him by Hamilton in 1876, and in 1881 the Ohio State University gave him that of LL.D. Dr. Orton was the author of many scientific papers, reports, and addresses. In geology he specialized on the economic products of Ohio, devoting chief attention to petroleum and its products, and under the auspices of the survey he published *Economic Geology of Ohio* (2 vols., Columbus, 1883-'88) and *Petroleum and Inflammable Gas* (1887). (See his portrait on page 35.)

Pacheco, Romualdo, diplomatist, born in Santa Barbara, Cal., Oct. 31, 1831; died in Oakland, Cal., Jan. 23, 1899. He was educated by private tutors, and was engaged in nautical and agricultural pursuits till he entered political life. In 1851 he was elected to the State Senate, in 1853 to the State House of Representatives, in 1855 county judge for a term of four years, and in 1861 to the Senate again. He was elected State Treasurer in 1863, and a State Representative again in 1868. In 1871 he was elected Lieutenant Governor on the ticket headed by Newton Booth, Independent, and in 1875, when Gov. Booth was elected to the United States Senate, he succeeded him as Governor. In 1876 Gov. Pacheco was a Republican candidate for Congress, and received the certificate of election, but after he had taken his seat the House declared his Democratic competitor legally entitled to it. In 1878 and 1880 he was elected beyond any doubt, although in the last contest his majority was only 135 in more than 34,000 votes. He was appointed minister to Guatemala and Honduras in 1890.

Page, Thomas Jefferson, naval officer, born in Gloucester County, Virginia, in 1808; died in Rome, Italy, Oct. 26, 1899. He was a grandson of Thomas Nelson, Jr., a signer of the Declaration of Independence. He was appointed midshipman on the flagship *Erie* in the West Indies, and served later on the *Hassler* in coast surveys. He was next sent as commander of the *Dolphin* to the China seas, which were then infested with pirates, where he captured several pirate junks. For a time he was attached to the Naval Observatory in Washington. In 1851 he was sent in command of an expedition in the *Water Witch* to explore the basin of the river La Plata. This mission occupied him three years, and his report went through two editions in English and one in Spanish. He was sent in 1858 with a fleet to continue his explorations, which included many rivers in Paraguay, Bolivia, and Brazil. A few weeks before the civil war opened he resigned his commission, and also declined an offer of admiral's rank in the Italian navy, and entered the Confederate service. After the war he spent some time on a cattle farm in Entre Rios, Argentine Republic, and later superintended in England the construction of four ironclads for the Argentine navy. During the last twenty years he resided in Italy.

Partridge, Frederick W., military officer, born in Norwich, Vt., Aug. 19, 1824; died in Sycamore, Ill., Jan. 22, 1899. He was educated at the academy in Norwich, was a student in Dartmouth College till his father's death, and in 1845 became an instructor in Harrisburg (Pa.) Military College. In 1847 he was sent on a secret

mission to Mexico by President Polk, especially charged with reporting on the conduct of operations at the front. Being necessarily without credentials, he was captured as a spy, and was confined at San Juan de Ulloa till released on orders from Washington. After the war he settled in Kendall County, Illinois, and resumed the study of law. On admission to the bar he began practicing in Sandwich, Ill. At the outbreak of the civil war he was commissioned a captain in the 13th Illinois Infantry. He was promoted major in June, 1861; lieutenant colonel in December, 1862; and colonel, for gallantry in the battle of Lookout Mountain, June 18, 1864. After the battle of Ringgold Gap he was brevetted brigadier general of volunteers. Gen. Partridge was wounded at Chickasaw Bayou, Chattanooga, and Ringgold Gap. After the war he resumed law practice in Sandwich and Chicago, was postmaster at Sandwich several years, and served a term as clerk of the Circuit Court of De Kalb County. In 1869 he became consul general at Bangkok, Siam, where he served eight years. While at this post he did much to secure greater protection for Christian missionaries and native converts, and gathered materials for a projected publication on his observations, which were subsequently lost in the burning of his home. In 1882-'89 he was a special examiner for pensions.

Paterson, William, jurist, born in Perth Amboy, N. J., May 31, 1817; died there, Jan. 1, 1899. He was a son of William Bell Paterson, a distinguished lawyer, and the last surviving grandson of William Paterson, second United States Senator from New Jersey. He was graduated at Princeton in 1835, was admitted to the bar in 1838, was defeated for the Legislature in 1840, and was elected in 1842 and 1843. While in the Legislature he was influential in securing the abolition of imprisonment for debt and the property qualification for the franchise. He also promoted the movement for the State Constitutional Convention of 1844, and was its secretary. In 1847 and 1857 he was deputy collector of internal revenue, and in 1864 was president of the New Jersey Electoral College. Between 1846 and 1878 he was elected mayor of Perth Amboy five times. He was appointed a judge of the New Jersey Court of Errors and Appeals in 1882, and served seven years. Although a staunch Democrat for fifty years, Judge Paterson actively opposed the candidacy of Grover Cleveland. With his twin brother he published *Poems of Twin Graduates of the College of New Jersey* (1882).

Payne, Charles Henry, educator, born in Taunton, Mass., Oct. 24, 1830; died in Clifton Springs, N. Y., May 5, 1899. He was graduated at Wesleyan University in 1856, and studied theology at the Concord (N. H.) Biblical Institute. In 1857 he was admitted into the Providence Conference, whence he was transferred to the East New York Conference, and was assigned to St. John's Church, Brooklyn. Subsequently he held appointments in Philadelphia and Cincinnati till 1875, when he was elected president of Ohio Wesleyan University. He resigned in 1888 to become corresponding secretary of the Board of Education of the Methodist Episcopal Church. He received the degree of D.D. from Dickinson College in 1870, and that of LL.D. from the Ohio State University in 1876. Dr. Payne was a member of the committee to revise the hymn book of his Church in 1876, of the Ecumenical Methodist Conference in London in 1881, and of the General Conference of his Church in five sessions. His publications include the pamphlets *The Social Glass* and *Christian Obligation* (1868); *Shall our*

American Sabbath be a Holiday or a Holy Day? (1872); and Daniel, the Uncompromising Young Man (1872), as well as Guides and Guards in Character Building (New York, 1883).

Peak, William Henry, singer, born in Boston, Mass., about 1820; died in Belvidere, Ill., July 11, 1899. His first public appearance is said to have occurred when he was seven years of age, but his real *début* was in what was known as the Peak Quartet, organized and engaged by the temperance societies of Boston to travel with the celebrated lecturer, John B. Gough. The other members of this family of vocalists were young Peak's father, mother, and uncle. They aided in giving entertainment to Mr. Gough's great audiences two years, and then began a series of concerts under their own management. Their first ventures were very modest, and the only instrument for accompaniment which they could carry was a small melodeon. William and his sister Julia shortly added guitars, and these two subsequently became very skillful on the harp. The celebrated staff bells, from the use of which this family came to be known as the Original Swiss Bell Ringers, were added through the ingenuity of William, who began with swinging bells and gave them up for glasses filled with water to different heights to secure the proper notes. A company of real Swiss bell ringers, having failed to get a favorable hearing in 1847, was obliged to sell its table bells. These the Peaks bought, and forthwith organized themselves into the famous coterie of entertainers named as above. They traveled over the country and gave concerts with great success until 1853. In that year William married at Niles, Mich., Miss Lydia Harris, and left the original family to organize a concert company of his own. His troupe, which eventually succeeded to great fame and emoluments, consisted of himself, his wife, her three brothers, and two talented children. This family continued together until 1875, when it was joined with the Berger family. The business of traveling entertainers, so well done by these families, gradually gave way to the stronger attraction of traveling dramatic companies, and most of the Peaks have been long in retirement.

Pendleton, William Kimbrough, educator, born in Yanceyville, Va., Sept. 8, 1817; died in Bethany, W. Va., Sept. 1, 1899. At the University of Virginia he completed an elective course, and was graduated in law. In 1841 he was associated with Alexander Campbell in the founding of Bethany College, West Virginia, and in 1866 became its president. From 1846 he was co-editor of the *Millennial Harbinger*, and he was from its foundation on the editorial staff of the *Christian Standard*. In 1871 he was unanimously chosen as a representative in the West Virginia Constitutional Convention. His wise judgment, manifested in securing a satisfactory free-school system, led to his being twice called to the office of State Superintendent. In his first term he framed the school law, which, passed by the Legislature, has since stood without material alteration. A list of his public addresses covers most of the practical questions of his time. Shortly before he died he said that, in looking over his editorial career, he had one end in mind, and that was to polish and spiritualize his Church (Disciples of Christ). Others made converts; it was his mission to educate them in all that pertains to life and godliness. In 1887, owing to failing health, he resigned the presidency of Bethany College and removed to Florida.

Pepper, George W., author, lecturer, and clergyman, born in Ballinagarrick, Ireland, July

11, 1833; died in Cleveland, Ohio, Aug. 6, 1899. He was educated at the Royal Academical Institution, Belfast, and when young took part in the temperance agitation under Father Mathew and John Bright. He came to America in 1854, resumed his studies at Kenyon College, Ohio, and subsequently was ordained a minister of the Methodist Episcopal Church. He was a circuit rider, and had various charges in Coshocton, Tuscarawas, and Morrow up to the breaking out of the civil war, when he became a captain in the 18th Ohio Volunteers. He fought in the campaigns from Corinth to Vicksburg. Afterward he was chaplain of the regiment. After the war he remained with the regular army in North Carolina as chaplain, and did much to aid in the educational work among the freedmen. In 1867 he returned to his church work, and had charge of various churches in northern Ohio. In 1889 he removed to Cleveland, Ohio, and in 1890-'95 he was United States consul at Milan, Italy. As "Chaplain Pepper" he was known as a speaker for the Republican party in every presidential campaign for twenty-eight years. He was also well known as a lecturer. He wrote several books relating to the civil war, the chief of which was *Sherman's Campaign in Georgia and the Carolinas*. At the time of his death he had just published *Under Three Flags*, a sketch of his life as preacher, army officer, and consul.

Perkins, Frederic Beecher, librarian, born in Hartford, Conn., Sept. 27, 1828; died in Morristown, N. J., Jan. 27, 1899. He was educated at Yale, but left in 1843 without a degree and began the study of law. Subsequently he entered the Connecticut Normal School, and was graduated in 1852. From 1880 to 1887 he was librarian of the San Francisco Free Public Library. He published *President Greeley*, *President Hoffman*, and *the Resurrection of the Ring* (Burlington, 1872); *Scrope*, a novel (Boston, 1874); *Check List for American Local History* (1876); *Devil Puzzlers*, and *Other Studies* (New York, 1877); *My Three Conversations with Miss Chester* (1877); *Charles Dickens: His Life and Works* (1877); *The Best Reading* (edited); and *Rational Classification of Literature for Shelving and Cataloguing Books for a Library* (San Francisco, 1881). Mr. Perkins was the author of unusually clever short stories, and was greatly esteemed for the accuracy of his historical and antiquarian attainments. He was a grandson of Rev. Lyman Beecher.

Perkins, George Hamilton, naval officer, born in Hopkinton, N. H., Oct. 20, 1836; died in Boston, Mass., Oct. 28, 1899. He was graduated at the Naval Academy in 1856, and on Oct. 20 was ordered to the *Cyane*, Capt. Robb, to cruise in the West Indies; detached from the *Cyane*, Jan. 11, 1858; Jan. 19, ordered to the *Release*, Commander William A. Parker, for the Mediterranean and Paraguay; appointed acting master of the *Release*, Aug. 18, 1858; detached from the *Release* and ordered to the *Sabine* at Montevideo, Capt. H. A. Adams, March 17, 1859; April 29, 1859, ordered to the *Sumter*, Commander Armstrong, as acting master, for a cruise on the west coast of Africa; Sept. 5, 1859, appointed master; Sept. 18, 1861, detached from the *Sumter*. On Dec. 16, 1861, he was ordered to the *Cayuga*, Lieut.-Com. Napoleon B. Harrison, as executive officer. In this vessel he passed Forts Jackson and St. Philip, April 24, 1862, and attacked the Chalmette batteries, April 25, and received their surrender. He landed at New Orleans, and went alone with Capt. Bailey to receive the city's surrender. George W. Cable has written the following description of the scene: "The crowd on the levee

howled and screamed with rage, and now the rain came down in sheets. About one or two o'clock in the afternoon (as I remember), I being again in the store, with but one door ajar, came a roar of shoutings and imprecations and crowding feet down Common Street. 'Hurrah for Jeff Davis! Hurrah for Jeff Davis! Shoot them! Kill them! Hang them!' I locked the door on the outside and ran to the front of the mob, bawling with the rest, 'Hurrah for Jeff Davis!' About every third man there had a weapon out. Two officers of the United States navy were walking abreast, unguarded and alone, looking not to right or left, never frowning, never flinching, while the mob screamed in their ears, shook cocked pistols in their faces, cursed and crowded and gnashed upon them. So through the gates of death those two men walked to the city hall to demand the town's surrender. It was one of the bravest deeds I ever saw done." He engaged in several skirmishes up the Mississippi after the taking of New Orleans. On Oct. 31, 1862, he was detached from the Cayuga and ordered as executive officer to the Pensacola. On Dec. 31, 1862, he was appointed lieutenant commander, and in June, 1863, received command of the gunboat New London, to convey powder and dispatches between New Orleans and Baton Rouge. He ran the batteries at Port Hudson successfully five times, and had a severe skirmish with the enemy at Whitehall's Point, July 9, 1863. On July 31, 1863, he was ordered to the command of the Scioto, for blockade duty off the coast of Texas, and on April 7, 1864, he captured the Mary Sorley, blockade runner, laden with cotton. On April 20, 1864, he was relieved from the command of the Scioto, with leave to proceed north; but he volunteered for the battle of Mobile Bay, and took command of the ironclad Chickasaw, July 28, 1864. In the subsequent operations, resulting in the taking of Mobile, in the reduction of Forts Powell, Gaines, and Morgan, and in the capture of the ram Tennessee, his ship was chiefly instrumental. On July 10, 1865, he was detached from the Chickasaw, with leave to proceed north, and on Nov. 12, 1865, was appointed superintendent of ironclads at New Orleans. On April 16, 1866, he was detached from ironclad duty and ordered north, and on May 17 became executive officer of the Lackawanna, for duty in the north Pacific. On Jan. 2, 1869, he was detached from the Lackawanna, and on March 19 was assigned to ordnance duty at Boston Navy Yard. On Jan. 19, 1871, he was appointed commander, and on March 3 received command of the United States storeship Relief, to convey contributions to the French. From September, 1871, till Jan. 29, 1876, he was on duty in Boston as ordnance officer, and afterward as lighthouse inspector. He commanded the Ashuelot, of the Asiatic squadron, in 1879-'81, was at the torpedo station, Newport, in 1882, and on leave of absence in 1883-'85. He was promoted to captain in March, 1882, and commanded the Hartford, on the Pacific station, in 1885-'86. He was on waiting orders in 1887-'88, on leave of absence in 1889, and on waiting orders again in 1890. He was retired Oct. 1, 1891, and on May 9, 1896, was promoted to commodore for his distinguished services during the rebellion. In 1886 his letters were edited and published under the title *Letters of George Hamilton Perkins*, U. S. N., and they have been used by Alfred T. Mahan in his *Life of Farragut*, and by J. Russell Soley in his books on the civil war. With his letters is included a sketch of his life by Commodore George E. Belknap, which was

originally published in the *Massachusetts Magazine*.

Perry, Amos, historian, born in South Natick, Mass., Aug. 12, 1812; died in New London, Conn., Aug. 10, 1899. He was graduated at Harvard in 1837, and immediately began teaching. Later he was one of the founders of the Rhode Island Institute of Instruction. In 1862 he was appointed United States diplomatic and consular agent at Tunis, and while there he devoted much time to the history and antiquities of the region. His last public service was the preparation of the Rhode Island State census in 1885. Mr. Perry was secretary and custodian of the Rhode Island Historical Society more than twenty-five years. His principal publications are *Carthage and Tunis: Past and Present*, and *An Official Tour along the Eastern Coast of Tunis*.

Pettit, Anna Stockton, biologist, born in Canton, N. Y., in 1863; died in Potsdam, N. Y., July 14, 1899. She was graduated at St. Lawrence University, New York, in 1882, studied drawing and painting and worked with the microscope eight years in New York city, and after a course at Barnard College received the degree of Ph. D. from Columbia in 1894. While prosecuting her studies she married Prof. Herbert D. Pettit, principal of the Lawrence (Long Island) School, in 1888, and for several years she aided him in his educational work. In the winter of 1895 she delivered at Lawrence a course of lectures on biology, and in the following spring was rendered blind and deaf by illness. So intense was her desire to study and teach that in spite of constant suffering she became proficient in the use of the point type for the blind and of the Morse alphabet. A collection of her original researches was published in a pamphlet by Columbia University.

Picking, Henry F., naval officer, born in Somerset, Pa., in January, 1840; died in Charlestown (Mass.) Navy Yard, Sept. 8, 1899. He entered the United States Naval Academy, Sept. 28, 1857; was commissioned an acting master on his graduation, June 4, 1861; was promoted lieutenant, July 16, 1862; lieutenant commander, July 25, 1866; commander, Jan. 25, 1875; captain, Aug. 4, 1889; and commodore, Nov. 22, 1898; and became a rear admiral under the act of Congress of March 3, 1899. His first active service was on the frigate *St. Lawrence*, of the North Atlantic blockading squadron. In 1862 he took part in the sinking of the Confederate privateer *Petrel* and in the memorable Monitor-Merrimac engagement. After a brief service at the Naval Academy in 1864, he was assigned to the monitor *Nahant*, of which he became commander in 1865, and was in several skirmishes with the batteries on Sullivan's island. In 1865-'68 he was with the West India and European squadrons; in 1869-'71 was at the Naval Academy; in 1873-'74 was on ordnance duty at the Washington Navy Yard and attached to the torpedo station at Newport; and in 1887-'89 commanded the naval forces on the Great Lakes. He was ordered to the Charlestown in 1892, and two years later attracted attention during the troubles at Rio de Janeiro by the energetic manner in which he asserted the authority of the United States Government over the interests of Americans, for which he received a letter of thanks from the Secretary of the Navy. On March 25, 1899, he succeeded Rear-Admiral Howison as commandant of Charlestown Navy Yard, where he died suddenly of heart disease.

Pierce, Abbie (Mrs. Harry Colton), actress, born in San Francisco, Cal., in 1862; died there, Oct. 29, 1899. She made her first appearance in

San Francisco, Jan. 9, 1879. In 1860, while playing at the Baldwin Theater, San Francisco, she married Harry Colton, a well-known actor then playing there. In December, 1882, she appeared in New York, playing the leading female rôle in *The Unknown* at the Windsor Theater, with her husband in the principal male character. She was associated with the tours of this play and another of similar character, called *Kentuck*, for several years. One of her most successful parts was Mamie Briscoe in *Passion's Slave*. She played with much success the part of Nellie Denver in *The Silver King* and the leading parts in *Wife for Wife* and *The Wages of Sin*. The death of her husband, with whom she constantly traveled, and her own failing health caused her retirement from the stage in 1890, from which time she lived in seclusion at her home in San Francisco.

Pierce, Henry Miles, clergyman, born in Pawtucket, R. I., Oct. 19, 1820; died in Fayetteville, Ark., Sept. 5, 1899. He was graduated at Brown University in 1842, and was admitted to deacon's orders in the Episcopal Church in 1843 and to priest's orders in 1894. After holding rectorships in Texas, Louisiana, and New Jersey, he became rector of Saint John's Church, at Mobile, remaining there from 1857 to 1868. For nearly two years following he was rector of Saint Paul's Church, at Springfield, Ill., and early in 1870 was consecrated missionary bishop of Arkansas and Indian Territory. In 1871 the diocese of Arkansas was organized, Bishop Pierce becoming its first bishop. In the face of much discouragement he administered diocesan affairs with skill and discretion, and under him the diocese made material advancement. Besides sermons, Bishop Pierce published *The Agnostic, and Other Poems* (New York, 1884).

Pierce, Samuel Everett, editor, born in New York city, Dec. 12, 1826; died in Roxbury, Mass., April 15, 1899. He studied at Princeton College, and was graduated in theology in 1852. He became pastor of the Baptist Church in Gloucester, Mass., and remained there till the beginning of the civil war in 1861. He was then appointed chaplain of the 71st New York Regiment, and participated in the battle of Bull Run. Afterward he was chaplain of the 4th Massachusetts Regiment. At the same time he acted as field correspondent of the *Boston Watchman and Reflector*, and his letters, which bore the signature *Ranger*, achieved a wide reputation. After the war he became associate editor of the *Watchman*, later of the *Christian Era*, and finally of the *Youth's Companion*, with which he remained until his death.

Pierpont, Francis Harrison, "the father of West Virginia," born in Monongalia County, Virginia (now West Virginia), in 1815; died in Pittsburg, Pa., March 24, 1899. He was born in a log cabin, and made his way in the world unaided and by severe toil. His early schooling was exceedingly meager. In college he supported himself by manual labor, and in his vacations carried a hod for bricklayers. After graduation at Allegheny College he engaged in teaching, and when about thirty-two years old he was admitted to the bar. He settled in Fairmount, Marion County, to practice, and soon became widely known as a lawyer of unusual ability and extraordinary energy. He early espoused the cause of abolition, and in the presidential canvass of 1848 was an elector on the Whig ticket, and made a vigorous canvass of Virginia. The civil war found him a staunch Union man. He organized the movement that resulted in the convention of delegates

from all the western counties, who decided that that part of the State should remain loyal to the Union. His activity and commanding influence in this movement attracted the attention of President Lincoln, who frequently sought his advice on matters pertaining to the situation of Virginia. In June, 1861, after the secession of the eastern counties of Virginia, he became Governor of the loyal counties, with headquarters at Wheeling. He was authorized by the President to raise troops for home protection, and a force was sent to give him aid. Gov. Pierpont remained at Wheeling till after the western counties had been organized into the new State of West Virginia and the State had been admitted into the Union with slavery prohibited. He then served as Governor of the loyal part of eastern Virginia from June, 1863, till May, 1865, at Alexandria, and as Governor of all Virginia from May, 1865, till January, 1868, at Richmond. In recent years he had lived quietly with a daughter in Pittsburg.

Pilar, Gregorio del, Filipino insurgent general, died near Cervantes, Luzon, Dec. 3, 1899. He was a mere youth, and was reported to have been graduated at a European university. He was one of the leaders of the anti-Spanish revolution in the Philippine Islands and of the insurgent army under Aguinaldo. In April it was rumored that he was about to desert Aguinaldo and submit to American rule, and in October messages purporting to come from him contained offers to sell out his army and to deliver Aguinaldo into the hands of Gen. Otis. The latter was firmly set against buying any surrenders, and the offers were not considered. In December he was encountered by a battalion of the 33d United States Infantry, under Major March, 18 miles northwest of Cervantes, and killed in the engagement that followed.

Pillsbury, Charles Alfred, manufacturer, born in Warner, N. H., Oct. 3, 1842; died in Minneapolis, Minn., Sept. 17, 1899. He was graduated at Dartmouth College in 1863, spent six years as clerk and partner in a commercial house in Montreal, and in 1869 removed to Minneapolis, where he engaged in milling with his uncle, John S. Pillsbury. About this time innovations were introduced into the art of milling, chief among them the substitution of steel rollers for stones to crush the wheat. Mr. Pillsbury and other millers adopted this system, and for several years enjoyed a monopoly of the "new process." In 1872 he took into partnership his father, George A. Pillsbury, and at a later period his brother, F. C. Pillsbury, also became associated with the enterprise. Till the acquisition of the property in 1890 by an English syndicate the firm was known as C. A. Pillsbury & Co. At the time of his death Mr. Pillsbury was the manager and one of the three American directors of the concern. A feature of the management is a profit-sharing scheme, by which in some years as much as \$25,000 is divided among efficient employees.

Mr. Pillsbury was a Republican in politics, and served as State Senator from 1877 till 1887. He was the author of the famous "bond bill," by which the repudiated bonds of Minnesota were paid after hanging like a cloud over its name for years. He was for many years president of the Minneapolis and Northern Elevator Company.

Plant, Henry Bradley, railroad and steamship promoter, born in Branford, Conn., Oct. 27, 1819; died in New York city, June 23, 1899. He received a common-school education, and in 1837 entered the service of the New Haven Steamboat Company in charge of their express business between New York and New Haven. In 1854 he was appointed superintendent of the southern division of the Adams Express Company, with headquarters at Augusta, Ga. In 1861 he organized the Southern Express Company, of which he was continuously president. During the civil war he had permission to run this express through the lines of the army without hindrance. In 1867 he became president of the Texas Express Company. While traveling in the interests of the Southern Express Company he became impressed with the many opportunities that Florida presented if its railroad facilities were developed, and, acting on this idea, he promoted the building of enormous hotels, the running of railroads, and the formation of steamship lines to make the hotels easy of access. The hotel at Tampa, Fla., one of the largest in the world, was the first of these ventures. It proved a great success, and he immediately began the erection of others. In 1879 he began to secure control of what later became widely known as the "Plant system" of railways and steamships. The railroads that were purchased by him and his associates include the Atlantic and Gulf of Georgia, the Savannah and Charleston, the South Florida, the Brunswick and Western, the Alabama Midland, the Abbeville Southern, and a number of smaller railroads. In 1886 he established the steamship line between Port Tampa, Key West, and Havana, Cuba; later the line running between Boston and Halifax was purchased and chartered as the Canada, Atlantic and Plant Steamship Company (Limited). In 1893 the North Atlantic line was purchased, and the route between Boston, Cape Breton, and Prince Edward Island is now operated by the company of which he was at the head. He left an estate in trust valued at about \$10,000,000. The last codicil of his will purports to extend the trust to great-grandchildren, and his widow contested the will on the ground that the trust was invalid as suspending the ownership of the personality and the alienation of the realty for a longer period than the laws allow.

Pond, George Edward, journalist, born in Boston, Mass., March 11, 1837; died at Spring Lake, N. J., Sept. 22, 1899. He was graduated at Harvard College in 1858 and at the Harvard Law School in 1860. From 1862 to 1864 he served as a first lieutenant of volunteers in the National army, resigning in 1864 to become an associate editor of the Army and Navy Journal. This place he gave up in 1868, but ten years later resumed it. He was also associated in an editorial capacity with the New York Times, the Philadelphia Record, the Galaxy Magazine, and the New York Sun, on which last he was an editorial writer at the time of his death. To the Galaxy he contributed a notable series of Driftwood Essays over the signature Philip Quilibet. In 1883 he published a volume of military history, entitled *The Shenandoah Valley* in 1864, in Scribner's Campaign Series. He wrote the article on

Gen. Philip H. Sheridan in the *Annual Cyclopædia* for 1883, and to *Liber Scriptorum*, the book of the Authors' Club, he contributed remarkably interesting recollections of James Russell Lowell in his intercourse with a select body of students who read Dante with him.

Pope, Charles Bohr (Charles Pope Rohr), actor, born in Weimar, Germany, Feb. 17, 1832; died in New York city, July 2, 1899. His father, who was an architect in Weimar and an intimate friend of Goethe, brought his family to the United States in 1834 and settled in Rochester, N. Y., where Charles learned the printer's trade. His first appearance was in the Rochester Theater, in 1848, in the character of Sir James Blount in *Richard III.* After two months in this theater he joined a traveling company, and then played small parts for a short season in the Adelphi Theater, Washington, D. C. On Dec. 25, 1848, he made his appearance in New York city at the old Broadway Theater as *Danglars* in *The Count of Monte Cristo*. There he remained, rising steadily in position and popularity, for several years. He was in the cast of *The Stranger*, Oct. 8, 1849, when Charlotte Cushman made her homecoming after a triumphant trip to England and Charles W. Coudock made his first appearance in the United States. Finally he attracted the attention of Edwin Forrest for his performance of *Lucius* in *Virginius*, March 19, 1852, who advanced him to the position of second man in his support. He was advanced to leading juvenile man in the support of Miss Julia Dean in 1853, first appearing with her as *Bertrand* in *The Belle of the Faubourg*, Sept. 17 of that year, and *Master Waller* in *The Love Chase* in subsequent performances. He remained at the Broadway until the end of the season of 1853-'54. He played *Salamenes* in the production of *Sardanapalus* at the old Bowery Theater for a short time beginning Sept. 4, 1854, and then for a time was leading man at the New York Theater (subsequently the Winter Garden). The promise of this theater depreciated rapidly, and Mr. Pope accepted a place as leading man of the St. Charles Theater, New Orleans. He remained there for the season, and in the autumn of 1855 went to St. Louis, with whose theatrical history he thereafter was most prominently associated. During the season of 1855-'56 he was the leading support of Miss Julia Dean in her first visit to California, and his acting was received by the Californians with scarcely less enthusiasm than was that of Miss Dean. Returning to the East in the autumn of 1857, Mr. Pope was for a time leading man of the Boston Theater, and then made a tour as principal support with Charlotte Cushman and another with Avonia Jones. Early in 1858 he accepted an invitation from Ben de Bar to play as a star in the West and South. He met with great success in this venture, and was especially popular in St. Louis, New Orleans, Louisville, Cincinnati, and Memphis. His repertory was practically the same as that of Mr. Forrest, Mr. Booth, and other Shakespearean stars. His magnificent and athletic figure, the dignity of his carriage, and the power and sweetness of his voice caused many to regard him as Forrest's equal. In April, 1861, he played on the Pacific coast several months with much good fortune. He remained three years in the far West, and conformed to the custom of the country by losing much of his well-earned fortune in mining speculation. After a short retirement he reappeared at the American Theater, San Francisco, Aug. 21, 1862, in *Schiller's Robbers*, and continued his former success. In 1864 he appeared at Niblo's

Garden, New York, as Chateau Renaud in the Corsican Brothers, Nov. 21, and a few weeks later he took an engagement as a star in German at the Stadt Theater (afterward the Windsor), in the Bowery. On Dec. 23, 1864, he played Othello (in German) there, with Mme. Methuascheller as Desdemona. In April following he returned to Niblo's Gardeh, appearing as Clifford in The Hunchback, with Kate Bateman as Julia. Subsequently he traveled several years as leading support with Edwin Forrest, Charlotte Cushman, Julia Dean, and Mrs. Jean Davenport-Landor. At the beginning of the season of 1868-'69 he took the management of the Indianapolis Theater. In 1867 he had married Miss Margaret E. Macauley, of Indianapolis, sister of the popular actor Barney Macauley. In 1869 he entered into comanagement of the St. Charles Theater, New Orleans, with Ben de Bar, and in 1870 took charge of the new opera house in Kansas City. During all this time he played in the West as a star. In 1874 he became associated with G. R. Spaulding in the management of the Olympic Theater, St. Louis, and he produced there an English adaptation of Salvini's Samson, which was made by William Dean Howells, and was often played by Mr. Pope with great public approval. In the same year he made another successful tour of California. In 1876 he became resident manager of the Varieties Theater, New Orleans, and in 1877 made a starring tour of Australia and New Zealand. With the encouragement of his friends in St. Louis in 1879, he built Pope's Theater, and then retired from active work as a player and devoted himself to its business management. In this he was very successful. In 1888 he sold his theater and ended his association with the drama to enter political life. In September, 1889, he was appointed United States consul at Toronto, Canada. At the incoming of another political party Mr. Pope was superseded, and thenceforward his home was in New York city. His skill as an orator and political debater made his services in campaign work valuable, and he was engaged by his party in that work in the State of New York for several years. In 1898 he made a brief return to the stage in the performance of Shakespearean parts, playing the week of May 7 at the National Theater, Philadelphia, and the week of May 14 at the Bijou Theater, Brooklyn. His last appearance was in the part of Colonel Sapt in Rupert of Hentzau, at Plainfield, N. J., Dec. 10, 1898.

Powell, Aaron Macy, editor, born in Clinton, N. Y., March 26, 1832; died in Philadelphia, Pa., May 13, 1899. He was educated at the New York State Normal School, and for several years previous to the civil war was editor of the Anti-slavery Standard, later called the National Standard. He was secretary of the American Anti-slavery Society from 1866 till 1870, assistant secretary of the National Temperance Society from 1873 till 1894, editor of the National Temperance Advocate and of the Philanthropist, and was president of the National Purity Alliance. His published works include State Regulation of Vice (New York, 1878); The Beer Question (1881); and The National Government and the Liquor Traffic (1882).

Prince, Frederick Octavius, lawyer, born in Boston, Mass., Jan. 18, 1818; died there, June 6, 1899. He was graduated at Harvard College in 1836, studied law, was admitted to the bar in 1840, and began to practice in Boston. He resided in Winchester, and represented that town in the State Legislature in 1851-'53. In the latter year he was a member of the Constitutional

Convention, and in 1855 was elected to the State Senate. In 1860 he allied himself with the Democratic party, and was a delegate to the National Democratic Convention at Charleston, S. C. By that convention he was elected secretary of the National Democratic Committee, and was re-elected to that office successively till 1888. Mr. Prince, having in the meantime become again a citizen of Boston, was elected mayor of the city in 1876, though his party was at that time in the minority. He was defeated for re-election in 1877, was successful in 1878, and was again twice re-elected, serving till the end of 1881. It was largely to his foresight that Boston owes its magnificent system of parks. He also labored successfully for the improvement of its system of sewerage. He was defeated as the Democratic nominee for Governor in 1885.

Putnam, John B., jurist, born in 1829; died in Hong-Kong, China, Nov. 28, 1899. He was elected to the Supreme Court of New York in 1887, and his term would have expired in 1900. In 1891 he was appointed to the General Term of the 3d department. He continued in that office till 1894, when he was designated as one of the justices of the appellate division of the 3d department. His death occurred while he was on his way to visit his son, a lieutenant in the 6th United States Infantry, stationed at Manila.

Rayner, William S., philanthropist, born in Bavaria in 1821; died in Baltimore, Md., March 1, 1899. In early youth he removed to Baltimore. He was a director in the Western Maryland Railroad and of the Western National Bank, and at the time of his death was president of the Kingwood Gas, Coal, and Iron Company, of the Curtis Bay and South Baltimore Harbor and Improvement Companies, and chairman of the Baltimore Equitable Fire Insurance Society. He gave the ground and erected the building of the Hebrew Orphan Asylum, and for many years was a director of the House of Refuge, vice-president of the Poor Association, and a manager of the Home for Incurables. To each of these and of other humane institutions he gave much of his time and wealth.

Rebisso, Louis T., sculptor, born in Italy in 1837; died near Cincinnati, Ohio, May 3, 1899. He took an active part in Mazzini's attempt to establish an Italian republic, and rather than serve a twenty years' imprisonment (the penalty imposed on the rebels by Victor Emmanuel's government) he escaped to an American ship, whose captain took him to Boston. Despite the subsequent amnesty to political prisoners and exiles, he refused to return to his native country. He had studied in Italy with the sculptor Rubatto, and also under Prof. Varni, and after settling in Boston he was employed several years in monumental establishments. His fame as a sculptor began to develop after his removal to Cincinnati, where he worked with T. D. Jones. The first important work that left his studio was the colossal equestrian statue of Gen. James B. McPherson, which was unveiled in Washington, D. C., in August, 1876. In 1887 he was awarded the commission for the Grant monument in Lincoln Park, Chicago, in a competition with 14 other sculptors. He also produced the statue of Gen. William Henry Harrison in Cincinnati and busts and monuments elsewhere. In 1875 he was appointed instructor in the McMicken School of Design (now the Cincinnati Art Academy).

Rector, Henry M., Governor, born in 1816; died in Little Rock, Ark., Aug. 15, 1899. In 1860 he was elected Governor of Arkansas as an Independent Democrat, after an intensely bitter can-

vass. In April, 1861, he refused to furnish the quota of soldiers called for by President Lincoln for the National army. He seized the arsenal at Little Rock and the fort at Fort Smith, with all the ammunition and stores. In May, 1861, a military board, one of whom was the Governor, was appointed to organize and equip an army, which was done to the extent of 40 regiments, to fight for the Confederate cause. The revolutionary convention of 1861, having omitted to continue the office of Governor, a contest arose over the question, and the Supreme Court declared the office vacant. Gov. Rector then fought in the Confederate army till the close of the war.

Reed, Alonzo, author, died in Remsenburg, Long Island, N. Y., Aug. 19, 1899. While a teacher of English in the Polytechnic Institute of Brooklyn he developed a plan of teaching English grammar which was embodied in an elementary text-book, published under the title of *Graded Lessons in English*, and this was followed by others on the same subject, some of them written in conjunction with Brainerd Kellogg (New York, 1877).

Reed, Harrison, editor, born in Littleton, Mass., in 1813; died in Jacksonville, Fla., May 25, 1899. In 1836 he removed to Wisconsin. He founded the *Milwaukee Sentinel*, of which he was editor. During the civil war he worked in the United States Treasury Department. In 1868 he was elected Governor of Florida, under its new Constitution, and he served four years and a half.

Reed, Myron Winslow, clergyman, born in Brookfield, Vt., July 24, 1836; died in Denver, Col., Jan. 30, 1899. He was preparing for the ministry when, in June, 1862, he enlisted as a private in the 18th Michigan Infantry, of which he was soon afterward appointed chaplain. This commission he resigned after two months, to accept a captaincy. He served till July, 1865, and for some time before he was mustered out he was chief of scouts on the staff of Gen. George H. Thomas. After the war he resumed his studies, was graduated at the Chicago Theological Seminary in 1868, and was pastor of Congregational churches in New Orleans and Milwaukee, and of the First Presbyterian Church in Indianapolis till 1883. In that year he went to the First Congregational Church in Denver, where he remained eleven years, resigning to take charge of the new Broadway Temple. Dr. Reed was for several years president of the Denver Charity Organization Society and of the Colorado State Board of Charities, and in 1892 was president of the National Conference of Charities and Corrections.

Reynolds, Joseph Jones, military officer, born in Flemingsburg, Ky., Jan. 4, 1822; died in Washington, D. C., Feb. 26, 1899. He was graduated at West Point, and commissioned a brevet second lieutenant in the 4th Artillery, in 1843; was promoted second lieutenant in the 3d Artillery, May 11, 1846; first lieutenant, March 3, 1847; resigned Feb. 28, 1857; was appointed colonel of the 26th Infantry, July 28, 1866; assigned to the 25th Infantry, Jan. 8, and to the 3d Cavalry, Dec. 15, 1870; and was retired June 25, 1877. In the volunteer service he was commissioned colonel of the 10th Indiana Infantry, April 25, 1861, and brigadier general, May 17; resigned Jan. 23, 1862; was reappointed a brigadier general, Sept. 17, 1862; promoted major general, Nov. 29, and was mustered out Sept. 1, 1866. He was brevetted brigadier general, United States army, for "gallant and meritorious services in the battle of Chickamauga," and major general for similar services in the battle of Missionary Ridge. In the early part of his career Gen.

Reynolds served at the Military Academy as Assistant Professor of Geography, History, and Ethics, and later as Assistant Professor of Natural and Experimental Philosophy. He was on frontier duty at Fort Wichita when he resigned from the army to become Professor of Mechanics and Engineering in Washington University, St. Louis, Mo. This place he resigned four years later, and engaged in private business in Lafayette, Ind. Between the times of resigning his first commission of brigadier general and of accepting the second he served without any commission in organizing Indiana volunteers. After returning to the field he was assigned to command the Cheat Mountain district in West Virginia. He made the campaign of the Army of the Cumberland in 1862-'63, taking part in the battles of Hoover's Gap, Chickamauga, and Chattanooga, and toward the end of 1863 became chief of staff of that army. In the early part of 1864 he commanded the defenses of New Orleans: in June he was placed in command of the 19th Corps, and in the next two months he organized the forces for the capture of Mobile. From November of that year till April, 1866, he commanded the Department of Arkansas. After his return to the regular army he commanded for five years the 5th Military District, comprising Louisiana and Texas, and while there (1871) was elected United States Senator from Texas, but declined the office. His last service was as commander of the Department of the Platte, in 1872-'76. Gen. Reynolds was retired for disability contracted in the line of duty.

Richardson, John Peter, planter, born in Clarendon County, South Carolina, in 1831; died in Columbia, S. C., July 6, 1899. He was graduated at the South Carolina College, and was a member of the Legislature till the civil war. He served on the staff of Gen. Cantey, in the Confederate army, from 1862 till the end of the war. He was again elected to the Legislature in 1878, was made State Treasurer in 1880, 1882, and 1884, and in 1886 and 1888 was elected Governor.

Richardson, Locke, elocutionist, born in Providence, R. I., in 1844; died in Berlin, Germany, June 15, 1899. He was a teacher of elocution at Cornell University, and made his first essay as a public reader before the Young Men's Christian Association, in New York city, in 1873. He was so well received that he made a season's engagement to give readings in different cities of the country, and became very popular. He was particularly admired in selections from Dickens and Shakespeare. Of his readings from the last-named writer, the most popular was *Henry IV*, in which he displayed an intimate and affectionate knowledge of the poet's dramatic intention and an admirable power of characterization.

Richardson, William, educator, born in Carnarvon, Wales, in 1843; died in New York city, April 15, 1899. He came to New York in 1869, and soon afterward began studying chemistry at Cooper Union. On completing the course he followed his profession for several years, and then returned to the school as an assistant in its chemical laboratory. He was afterward appointed director, and held the post nearly ten years. He received the degree of Ph. D. from Waynesburg (Pa.) College in 1888.

Richmond, Adelbert G., antiquary, born about 1840; died in Canajoharie, N. Y., Nov. 13, 1899. He was interested in various industrial enterprises in Canajoharie. For several years, in early life, he was private secretary to Francis E. Spinner, Treasurer of the United States. He was best known as a collector of relics of the North

American Indians, and his collection was especially rich in material relating to the Six Nations.

Rickoff, Andrew Jackson, educator, born near Newhope, N. J., Aug. 23, 1824; died in San Francisco, Cal., March 29, 1899. In 1830 his parents removed to Cincinnati. He began teaching at the age of seventeen, and by means of untiring application to his studies he won from the Ohio University the degree of A. M. He was for five years superintendent of schools in Portsmouth, Ohio. He then taught in the public schools of Cincinnati, was appointed superintendent of schools there two years later, and held that office five years. He afterward established a private school, which he conducted about nine years. He was elected to the Board of Education in Cincinnati in 1864, and was made president, which office he held more than two years, when he accepted an offer of the superintendency of the schools in Cleveland. Fifteen years later he assumed similar duties in Yonkers, N. Y. On resigning the latter office he returned to Ohio, and then removed to California. In 1885 he was president of the Ohio State Teachers' Association, and in 1889 was elected president of the National Teachers' Association. In 1880 he was elected a member of the National Council of Education, which is limited to 52 members. For several years after 1888 he was in charge of Felix Adler's Workingman's School. He was the author of an arithmetic and many other schoolbooks, and he was the editor of a series of six readers. He recommended the plan of reorganization of the educational system which is now in successful operation in Cleveland; and at the Centennial Exposition in 1876 his system of schools in that city was declared superior to that of any other city in the United States. In fact, his system was the pattern after which nearly all the school systems of the Western States were constructed. He also paid much attention to school architecture, and to the heating and ventilation of school-rooms. He was authorized by the Board of Education of Cleveland to make the floor plans of 6 of the large school buildings, the Central High School being one of the number; and he also made the plans for their heating and ventilation. At the Centennial Exposition he received a medal for the best designs for school buildings.

Robbins, Hiram, playwright, born in Harrisburg, Pa., in 1837; died in Little Rock, Ark., Jan. 21, 1899. In the years immediately following the civil war he appeared as an actor. His last work as a playwright was *The Destruction of Hell*, an extravaganza founded on Dante's *Inferno*, which was produced in Chicago in 1895. He went to the Klondike in 1897, and contracted a fatal cold. During his residence in Little Rock he was prominent in politics.

Roberts, Charles Boyle, jurist, born in Uniontown, Md., April 19, 1842; died in Westminster, Md., Sept. 10, 1899. He was graduated at Calvert College in 1861, and was admitted to law practice in 1864. In 1868 he was a presidential elector on the Democratic ticket. He was elected to Congress in 1874, and re-elected in 1876. In 1883 he was elected Attorney-General of Maryland, and in 1891 was appointed an associate judge of the State Court of Appeals. In 1892 he was elected chief justice of the 5th Maryland District, which office he held until his death.

Roberts, Daniel, lawyer, born in Wallingford, Vt., May 25, 1811; died in Burlington, Vt., Oct. 6, 1899. He was graduated at Middlebury College in 1829, studied law, and was admitted to the bar in 1832. He then went West, and spent a great part of the time till 1835 in Illinois, when

he returned to Vermont, practiced in Manchester till 1855, and then removed to Burlington, where he formed a partnership with Lucius E. Chittenden, afterward Register of the Treasury of the United States. Mr. Roberts was Bank Commissioner in 1853-'54, and in 1855-'56 was special agent for the United States Treasury Department. In 1868-'69 he was State's attorney for Chittenden County, and from 1870 till 1872 was city attorney of Burlington, which office he again held in 1880. In 1878 he completed a Digest of the Decisions of the Supreme Court of Vermont; in 1889 published a supplement to it; and at the time of his death had finished a second supplement. He received the degree of LL. D. from Middlebury College in 1877. In 1880 he was president of the Vermont Bar Association.

Robinson, Charles Seymour, clergyman, born in Bennington, Vt., March 31, 1829; died in New York city, Feb. 1, 1899. He was graduated at Williams College in 1849. After teaching nearly two years, he spent a year at the Union Theological Seminary, New York city, and the next at Princeton Seminary, and on April 19, 1855, he was ordained pastor of the Park Presbyterian Church in Troy, N. Y. In 1860 he went to the First Presbyterian Church, in Brooklyn, N. Y., and in 1868 accepted a call to the American Chapel in Paris, France, where he established a regular church organization. On the outbreak of the war between France and Prussia he returned to New York and assumed the pastorate of Madison Avenue Presbyterian Church, with which he remained till 1887. After the suppression of the Commune, in 1871, Dr. Robinson spent several months in Paris, striving to reorganize the work of the American Chapel. Since 1887 he had held no regular charge for any considerable period. He received the degree of D. D. from Hamilton College in 1866, and that of LL. D. from Lafayette College in 1885. Dr. Robinson published many volumes of sermons and other works, but was probably most widely known as a hymnologist. His books include *Songs of the Church* (New York, 1862); *Songs for the Sanctuary* (1865); *Songs for Christian Worship* (1866); *Short Studies for Sunday-school Teachers* (1868); *Chapel Songs* (1872); *Psalms, Hymns, and Spiritual Songs* (1874); *Christian Work and Bethel and Peniel, sermons* (1874); *Spiritual Songs* (1878); *Spiritual Songs for Social Worship* (1880); *Studies in the New Testament* (1880); *Spiritual Songs for Sunday School* (1881); *Studies of Neglected Texts* (1883); *Laudes Domini, hymn-book* (1884); *Sermons in Songs* (1885); *Sabbath Evening Sermons* (1887); *The Pharaohs of the Bondage and the Exodus* (1887); and *Simon Peter: Early Life and Times* (1887).

Rogers, Edward F., horticulturist, born in Salem, Mass., in 1826; died in Peabody, Mass., March 29, 1899. After receiving a common-school education, he made several voyages in his father's vessels, and then for fifteen years withdrew almost wholly from the public eye and applied himself to his garden. He produced the famous Rogers grape by taking the vine of the Mammoth Globe and the pollen of Black Hamburg and Sweet-water vines. To him belongs the credit of first hybridizing the grape, and he was awarded the only gold medal ever given by the Massachusetts Horticultural Society in this line. In 1856 he recrossed the hybrids with the *V. vinifera*, obtaining vines bearing fruit nearly identical with the foreign kinds. Subsequently he gave much attention to hybridizing pears, with equal success.

Rogers, William F., soldier, born in Philadelphia, Pa., in 1820; died in Buffalo, N. Y., Dec.

16, 1899. He entered the volunteer service in the civil war as a member of the 21st New York Infantry, served two years, and rose to the rank of brevet brigadier general. After the war he was successively auditor, comptroller, and mayor of Buffalo. In 1887 he was appointed superintendent of the Soldiers' and Sailors' Home at Bath, which office he held till 1891.

Ropes, John Codman, historian, born in St. Petersburg, Russia, April 28, 1836; died in Boston, Mass., Oct. 28, 1899. He was graduated at Harvard in 1857, and after studying at Harvard Law School was admitted to the bar in 1861. Since the latter year he had practiced his profession continuously in Boston, and from 1865 was at the head of the firm of Ropes, Gray & Loring. His interest in military affairs began early in his career, and it was in great measure through his influence that the Government attempted the collection and preservation of information relative to the civil war. He organized the Military Historical Society of Massachusetts, to which he left his valuable collection of military books and maps, and in recognition of his services to the United States army he was elected a member of the Loyal Legion. His earliest published work was *The Army under Pope* (New York, 1881), a concise analysis of the summer campaign of 1862 in northern Virginia. This was followed by *The First Napoleon* (Boston, 1885), originally given to the public in the form of lectures at the Lowell Institute, in Boston. This was followed by *The Campaign of Waterloo*, an elaborate monograph (New York, 1892-'93). At the time of his death two volumes of *The Story of the Civil War* (New York, 1894-'98) had appeared. The materials for the completion of this history had been collected by him, and a final review and critical summary of the war had been written.

Rose, William G., lawyer, born in Mercer County, Pennsylvania, Sept. 23, 1829; died in Cleveland, Ohio, Sept. 15, 1899. He educated himself, studied law, and was admitted to the bar in 1855. He was for a short time editor and proprietor of the *Mercer Independent Democrat*, and in 1857 and 1858 he was elected to the Pennsylvania Legislature as a Republican. In 1865 he removed to Cleveland, Ohio, where, after being admitted to the bar, he engaged in the real-estate business. In 1877 he was elected mayor of Cleveland, and his administration of municipal affairs was exceptionally able; and when, in April, 1891, he was a candidate for re-election, he was returned with a handsome majority. During the great railroad strike, in his first administration, he handled all difficulties so well that he was commended by both his friends and his political opponents. During the strike no property was lost and no citizen was in jeopardy of his life. At the beginning of his second administration the present federal system of city government was inaugurated, and upon him fell the work of setting the untried machinery in motion. So thoroughly and efficiently did he do this that his management of affairs has always been regarded as one of the best the city ever had. He was unanimously nominated for Lieutenant Governor in 1883, and ran 7,000 votes ahead of his ticket, which was defeated.

Russell, William Augustus, manufacturer, born in Wells River, Vt., April 22, 1831; died in Boston, Mass., Jan. 10, 1899. He was educated at Franklin, N. H., and Lowell, Mass., and in 1848 began working in his father's paper mill in the latter city. In 1853 the father and son

formed a partnership, and moved their plant to Lawrence. Soon afterward the father was obliged by failing health to retire from business, and the son assumed the whole management. In 1856 he began enlarging his operations by leasing and buying mills in Belfast, Me., and Lawrence, Mass. Having found by costly experiments that wood pulp was needed, he established in Franklin, N. H., in 1869, the first mill in the country for the production of the new fiber. He succeeded in this where many had failed, and created a new branch of industry. For the conversion of the fiber into paper he purchased two mills in Franklin and erected a large one in Bellows Falls, Vt. To carry out his plans in the last place he was obliged to purchase the entire water power there, build a new dam, and enlarge the canal. Through his enterprise this small town grew to be the third in valuation in the whole State. At the time of his death he was operating paper mills at Bellows Falls, Vt., Lawrence, Mass., St. Anthony's Falls, Minn., and in several places in Maine. Mr. Russell was a delegate to the Republican National Conventions of 1868 and 1876, a representative in the Massachusetts Legislature in 1869, and a member of Congress from 1879 till 1885.

Rust, John B., civil engineer, born in Wolfborough, N. H., in 1828; died in Brooklyn, N. Y., Sept. 12, 1899. He became a railroad builder, and helped to lay out the Lake Shore and the Chicago, Milwaukee and St. Paul lines. Among his other engineering works were the construction of the Portland and Ogdensburg Railroad through the White Mountain notch, the St. Johnsbury and Lake Champlain Railroad, and a bridge across Maquam Bay.

Rycraft, John, abolitionist, died in Milwaukee, Wis., in December, 1899. In 1854 a slave named Joshua Glover escaped from his master, a planter living near St. Louis. He was discovered near Racine, Wis., and was captured under the fugitive slave act and taken to Milwaukee. A mob broke open the jail and rescued the slave, and Rycraft and S. M. Booth, the publisher of an antislavery paper in Milwaukee, were arrested on the charge that they had incited the mob and aided in the rescue. Both were convicted of violation of the fugitive slave act, and a judicial conflict was precipitated between the State of Wisconsin and the United States; but the affair was closed by the events attending the outbreak of the civil war.

Sartori, Lewis Constant, naval officer, born in Bloomsbury, N. J., June 3, 1812; died in Philadelphia, Pa., Jan. 11, 1899. He was appointed a midshipman in the navy Feb. 2, 1829; promoted passed midshipman, June 15, 1837; lieutenant, Sept. 8, 1841; commander, April 27, 1861; captain, Sept. 26, 1866; and commodore, Dec. 12, 1873; and was retired June 3, 1874. He was on sea duty nineteen years and four months, and on shore or other duty nine years and nine months. Prior to 1840 he served successively at the Brazilian station and with the Mediterranean, West Indies, and Pacific squadrons. During the Mexican War he was attached to the bomb schooner *Stromboli*, in which he took part in the capture of Tabasco and Coatzacoalcas. While on the *John Adams*, in the Pacific squadron, in 1855, he commanded a successful expedition and engagement against the Fijis. In 1861 he commanded the blockading steamer *Flag*; in the latter part of 1862 the *Florida*, of the North Atlantic squadron; in 1863, the *Portsmouth*, of the Western Gulf squadron; and in 1864, the *Monongahela* and *Oneida*, off Mobile. After the war he served on

the Pacific coast till his retirement, and commanded the naval rendezvous at San Francisco in 1871-'72, and the navy yard at Mare island in 1872-'73.

Saunders, Alvin, Senator, born in Fleming County, Kentucky, July 12, 1817; died in Omaha, Neb., Nov. 1, 1899. He removed with his parents at twelve years of age to the vicinity of Springfield, Ill. When he was sixteen years old he obtained employment on a farm at Mount Pleasant (now in Iowa). Soon he became storekeeper's clerk, then part proprietor, and later postmaster for seven years. At the same time he studied law, but continued in business and became a banker. In 1846 he was a member of the convention that framed the Constitution under which Iowa was admitted as a State. Then he served as State Senator eight years. He was a member of the Republican National Convention of 1860, and took an active part in the campaign for Lincoln. He was also a commissioner to organize the Pacific Railroad Company. In 1861 he was appointed Governor of the Territory of Nebraska, and he held that place until the admission of Nebraska as a State in 1867. Although the population of Nebraska was only 30,000 for this period, Gov. Saunders not only raised 3,000 men for the National army, but was also able successfully to repel the attacks of hostile Indians. In the winter of 1876-'77 he was elected to the United States Senate, and in that body he was active in securing the resumption of specie payments. He obtained more than 600,000 acres for Nebraska by the straightening of the northern boundary, adjoining Dakota. Another of his acts in the Senate was that of securing a labor school for Indians on the Pawnee reservation. He was one of the commissioners to visit the Indian tribes and report on the advisability of turning the management of the Indians over to the War Department. As chairman, he presented the majority report, adverse to such a measure. He also recommended the teaching of Indians to work and to become independent. His service in the Senate ended in 1883.

Savage, Philip Henry, author, born in North Brookfield, Mass., Feb. 11, 1868; died in Boston, June 4, 1899. He was a son of the Rev. Minot J. Savage, and was graduated at Harvard in 1893. From 1896 until his death he was a member of the Boston Public Library staff, and in the spring of 1899 he was appointed clerk of the corporation of the library. His two volumes of verse—*First Poems and Fragments* (Boston, 1895) and *Poems* (1898)—displayed a marked degree of promise in thought and expression as well as skill in technique.

Sawyer, Thomas Jefferson, clergyman, born in Reading, Vt., Jan. 9, 1804; died in Somerville, Mass., July 23, 1899. He was graduated at Middlebury College in 1829, and entered the Universalist ministry the next year, and was pastor of a church in New York city 1830-'45, and again in 1852-'61. From 1845 to 1852 he was president of the Clinton Liberal Institute, at Clinton, N. Y., and in 1847 was instrumental in founding Tufts College, at Medford, Mass. In 1869 he became Professor of Theology at Tufts College Divinity School, then newly opened, holding office until 1892, when he was made professor emeritus. He was a profound scholar, an eloquent and graceful speaker, and as a controversialist had few rivals. He was one of the greatest men his denomination has produced, and his influence in liberalizing the tone of religious thought in the earlier part of his ministry was of wide extent. *Endless Punishment in the Very Words of its Advocates* (1880)

is almost his only published book, but for forty years he contributed regularly to the *Universalist Quarterly* controversial and other articles, and he was successively editor of the *Christian Messenger* and the *Christian Ambassador*, for both of which he wrote notable articles.

Schrivver, Edmund, military officer, born in York, Pa., Sept. 16, 1812; died in Washington, D. C., Feb. 10, 1899. He was graduated at West Point, July 1, 1833, and entered the army as a brevet second lieutenant in the 2d Artillery; was promoted second lieutenant, July 31, 1834; first lieutenant, Nov. 1, 1836; brevet captain and assistant adjutant general, July 7, 1838; captain in the 2d Artillery, Aug. 17, 1842; lieutenant colonel of the 11th Infantry, May 14, 1861; and colonel and inspector general, March 13, 1863; and was retired Jan. 4, 1881. In the volunteer army he served as colonel and additional aid-de-camp from May 18, 1862, till March 13, 1863. He was brevetted brigadier general, United States army, for meritorious services in the field, on Aug. 1, 1864, and major general, United States army, for distinguished service during the war, on March 13, 1865. After graduation, Gen. Schrivver served several years with the artillery in New York, Alabama, and Tennessee; then spent four years in the Adjutant General's office in Washington; and afterward in the Seminole Indian war, in Florida, till July 31, 1846, when he resigned. From 1847 till 1861 he was engaged in railroad business in New York State, during the last ten years being president of the Rensselaer and Saratoga Railroad. At the outbreak of the civil war he was among the first to offer his services to the Government, and re-entered the army on May 14, 1861. He served for some time as aid-de-camp to Gov. Morgan, of New York, and then was made chief of staff of the 1st Corps in the Army of the Potomac. After taking part in the Shenandoah and the northern Virginia campaigns, he was appointed inspector general of the army. He was engaged in the battles of Chancellorsville and Gettysburg, and in the campaign from the Rapidan to Petersburg, and thence till the close of the war he was on duty in the office of the Secretary of War. After peace he was on general inspection duty, principally in the West, and on special service till his retirement.

Seaver, Joel J., journalist and soldier, born in Salisbury, Vt., Dec. 17, 1822; died in Malone, N. Y., Nov. 20, 1899. He removed to Malone, where he taught school and studied law four years. In 1850 he joined the staff of the Malone Palladium. With his brother, J. K. Seaver, he purchased the Palladium later, and became its editor. When President Lincoln issued his first call for troops, in 1861, he was the first man in Franklin County to offer his services. He was subsequently chosen captain of Company I, 16th Regiment, New York Volunteers, and after serving as major and lieutenant colonel he became colonel, and within two years was in command of a brigade. He participated in sixteen engagements, among them Gaines's Mill, the two Fredericksburg fights, and Antietam. He was a member of the Constitutional Convention of 1867.

Sedley, Henry, author, born in Boston, Mass., April 4, 1835; died in New York city, Jan. 18, 1899. He was a son of William Henry Sedley, the actor, who became widely popular as Rolando in *The Honeymoon*. He was educated in Boston, studied civil engineering at Rensselaer Polytechnic Institute, in Troy, and engaged in his profession in San Francisco, where he surveyed and mapped many of the principal streets. After completing this work he made a tour of the world,

and, returning to New York, engaged in journalism. For four years he was dramatic editor of the Times, then took a similar place with the Evening Post, and afterward was editor in chief of The Round Table three years and principal editor of the Commercial Advertiser two years. In 1885-'88 he was a member of the editorial council of the Herald, and in 1891 was appointed a member of the Board of Civil Service Examiners for the customs district of New York. Mr. Sedley published *Dangerfield's Rest: A Romance* (New York, 1864) and *Marion Rooke* (1865).

Semmes, Thomas Jenkins, lawyer, born in Georgetown, D. C., Dec. 16, 1824; died in New Orleans, La., June 23, 1899. He was graduated at Georgetown College in 1842, and at Harvard University in 1845. He practiced law in Washington till 1850, when he removed to New Orleans. He was a member of the Democratic State Committee in 1852, was elected to the Legislature in 1855 and in 1858 was appointed United States District Attorney for Louisiana. In 1859 he resigned to become Attorney-General of the State. In 1861 he was a member of the Louisiana Constitutional Convention, and, in November of that year was elected to the Confederate Congress. In 1868 Mr. Semmes was pardoned by President Johnson, and returned to his law practice in New Orleans. He was appointed Professor of Civil Law in the University of Louisiana, and was a member of the Constitutional Conventions of 1879 and 1898. In 1886 he was president of the American Bar Association, and in 1890 he delivered an elaborate address on the personal characteristics of the chief justices at the centennial celebration, in New York city, of the opening of the Supreme Court of the United States.

Sexton, James Andrew, military officer, born in Chicago, Ill., Jan. 5, 1844; died in Washington, D. C., Feb. 5, 1899. In April, 1861, he enlisted in the 19th Illinois Infantry. After three months' service he re-enlisted in the 67th Illinois Infantry, and was made a first lieutenant. He was later transferred to the 72d Illinois regiment as captain. He served in Ransom's Brigade, McArthur's Division of the 17th Corps, Army of the Tennessee, and took part in nearly all its campaigns. In the battles of Columbia, Duck River, Spring Hill, Franklin, and Nashville he commanded his regiment. He was wounded at Franklin and Nashville, and at the capture of the Spanish fort, Mobile, his leg was broken by a piece of shell. After the war he purchased a plantation in Alabama, and remained there two years. He was appointed postmaster of Chicago in 1889, and resigned Jan. 1, 1895.

Shepard, Elizabeth G., author, born in Boston, Mass.; died in Reservoir, Mass., April 4, 1899. She was educated at the Boston Normal School. Her writings were mainly contributions to newspapers, among them being a series of letters entitled *Up the Charles*, published in the Boston Transcript. She also wrote *A Guidebook to Norumbega and Vineland* (Boston, 1893).

Simmons, Henry Clay, clergyman, born in Harford, N. Y., Feb. 15, 1845; died in Fargo, N. D., Dec. 20, 1899. He was graduated at Beloit College in 1869, and at Chicago Theological Seminary in 1872. He had charges in Fond Du Lac, Wis., from 1872 till 1874, in Marshall, Minn., from 1874 till 1879, and in Walnut Grove from 1879 till 1882. He went to Dakota in 1886 to act as superintendent of home missions for that State. He was instrumental in establishing Fargo College, of which he was president from 1894. He received the degree of D. D. from Chicago Theological Seminary in 1897.

Slater, James H., lawyer, born in Sangamon County, Illinois, Dec. 28, 1826; died in La Grande, Ore., Jan. 28, 1899. He received a common-school education; spent a part of 1849 in California; and in 1850 settled in Oregon, where he was admitted to the bar in 1854. In 1853-'56 he was clerk of the district court for Benton County, in 1857 and 1858 was elected to the Legislature, and in 1866 was elected district attorney in the 5th Judicial District. He was a presidential elector on the Democratic ticket in 1868, member of Congress in 1870, and United States Senator for the term beginning March 18, 1879.

Smalley, Eugene Virgil, journalist, born in Randolph, Ohio, July 18, 1841; died in St. Paul, Minn., Dec. 29, 1899. He was educated at the New York Central College, and during the civil war served in an Ohio regiment. From 1865 to 1873 he was clerk of a House committee at Washington as well as a correspondent for various papers, and was on the staff of the New York Tribune as correspondent and editor in 1871-'82. He founded the Northwest Magazine at St. Paul in 1884, and was its editor until his death. He was the author of a *History of the Northern Pacific Railroad* (New York, 1883); *History of the Republican Party* (1885); and *Political History of Minnesota*.

Smith, William Crawford, soldier, born in Petersburg, Va., in 1837; died in Manila, Feb. 5, 1899. He removed to Nashville in early life, and was an architect. At the outbreak of the civil war he returned to Petersburg and enlisted in the 12th Virginia Infantry. After the war he returned to Nashville, where he designed many important buildings, among them the Parthenon at the Centennial and the Vanderbilt University. At the outbreak of the Spanish-American War he was colonel of the 1st Tennessee Regiment, and with it volunteered for service. He was mustered in May 20, 1898, and immediately ordered to San Francisco. His regiment left San Francisco Oct. 28, and on its arrival at Manila Col. Smith was made district commander of Cavité, and served on the board that drafted the regulations for government of the natives. The insurgents around Cavité were numerous and hostile, but so carefully was the town guarded by Col. Smith and the men under him that all the night attacks came to naught. A few days before the general outbreak in February, with part of the 1st Tennessee Regiment, he was transferred to Manila, and on Feb. 5 died of apoplexy, at the head of his command on the firing line.

Smith, William H., jurist, born in Fayette County, Georgia, in 1827; died in Birmingham, Ala., Jan. 1, 1899. He removed to Randolph County, Alabama, in boyhood, became a lawyer, and was elected to the Legislature. After the civil war he was elected a circuit judge, and in 1868, while holding that office, became Governor of Alabama. He held this office for two years, and was influential in promoting reconstruction measures. In 1881 he was appointed United States District Attorney for the Northern and Middle Districts of Alabama, and this office he held four years. Judge Smith was a conservative Republican.

Smyth, Frederick, banker, born in Candia, N. H., March 9, 1819; died in Hamilton, Bermuda, April 22, 1899. He was educated at Phillips Academy, Andover, and engaged in business in Manchester, N. H., first as a merchant and later as a banker. In 1852 he was elected mayor of the city, and he held the office four terms. In 1857 and 1858 he served in the Legislature; in

1860 was chairman of the Republican State Convention; and in 1861 was appointed United States Commissioner to the International Exhibition in London (1862). In 1865 and 1866 he was elected Governor of New Hampshire, and in the last year was also appointed to the Board of Managers of the National Homes for Disabled Soldiers. In 1878 he was appointed a United States Commissioner to the Paris Exposition. He was president of the Boston, Concord and Montreal Railroad Company, and trustee and treasurer of the New Hampshire College of Agriculture and Mechanic Arts. See GIFTS AND BEQUESTS.

Southworth, Mrs. Emma Dorothy Eliza Nevitte, novelist, born in Washington, D. C., Dec. 26, 1819; died there, June 30, 1899. In 1840 she married Frederick H. Southworth, of Utica, N. Y., who three years later deserted her and their children. From 1844 to 1849 she taught in a public school in Washington, and to add to her income began at this period to write stories for weekly newspapers. Retribution, her first work to appear in book form, was published in 1849, and an incomplete list of its successors comprises *The Deserted Wife* (1850); *Shannondale and The Mother-in-law* (1851); *Children of the Isle and The Foster Sisters* (1852); *The Family Doom*; *Prince of Darkness*; *The Bride's Fate*; *The Changed Brides*; *How He Won Her*; *Fair Play*; *Fallen Pride*; *Ishmael*; *The Widow's Son*; *Bride of Llewellyn*; *The Fortune Seeker*; *Allworth Abbey*; *The Bridal Eve*; *The Fatal Marriage*; *Love's Labor Won*; *The Lost Heiress*; *Gipsy's Prophecy*; *Discarded Daughter*; *The Three Beauties*; *Vivia*; *The Two Sisters*; *The Missing Bride*; *The Wife's Victory*; *Haunted Homestead*; *Lady of the Isle*; *India*; *Curse of Clifton*; *Hester Strong's Life Work* (1869); *The Lost Heir of Linlithgow* (1872); *Unknown* (1874); *Red Hill Tragedy* (1877); *The Trail of the Serpent* (1879); *Sybil Brotherton* (1879); *Nearest and Dearest* (1881); *The Mother's Secret* (1883); *An Exile's Bride* (1887); *The Hidden Hand* (1888); *Leap in the Dark*; *Lost Lady of Lone* (1889); *Maiden Widow* (1888); *Self-raised*; *Tried for her Life*; *Brandon Coyle's Wife*; *The Specter Bridegroom*; *Broken Pledges* (1891); *Cruel as the Grave*; *Gloria*; *David Lindsay*; *Gertrude Haddon*; *Only a Girl's Heart*; *Skeleton in the Closet*; *The Unloved Wife*. Mrs. Southworth's stories have been widely popular among uncritical readers, and their sensationalism is not of a hurtful character. In *The Widow's Son* and *Ishmael* there is considerable tragic power, and in all the plots are ingeniously contrived. Translations of her books have appeared in French, German, and Spanish. Soon after the success of her early books Mrs. Southworth gave up teaching and devoted herself entirely to writing, her novels usually making their first appearance serially in the *New York Ledger*. Save for a few years, when she resided at Yonkers, N. Y., her life was spent in Washington.

Steers, Edward Paulet, banker, born in Cork, Ireland, Oct. 13, 1837; died in New York city, April 22, 1899. In early childhood he accompanied his father, an agent for Crown lands, to Canada; when about twelve years old went to Buffalo, N. Y., and became a bank cashier; and in 1862 removed to New York city, where he was first engaged in the lumber business, and from 1886 as president of the Twelfth Ward Bank, which he had organized. He was considered an authority on conchology and numismatics, had gathered an almost priceless collection of shells and coins, and was compiling a Dictionary of Conchology.

Stevens, Martha Bayard, philanthropist, born in Princeton, N. J.; died in Hoboken, N. J., April 1, 1899. She was the daughter of the late Albert B. Dod, Professor of Mathematics at Princeton, and the widow of Edwin A. Stevens, founder of Stevens Institute of Technology, in Hoboken. When she became the wife of John Stevens's son she came into possession of much of the property that had once been owned by her ancestors. Mrs. Stevens was noted for her works of charity and her efforts to improve the condition of the poor. She built the Church of the Holy Innocents; was largely instrumental in the founding of the Hoboken School for Manual Training, and in the erection of the building used by this school and the Free Public Library; opened the Martha Institution; endowed a ward in St. Mary's Hospital; and made large donations to Christ Hospital, St. Catherine's Home, and other benevolent institutions. Shortly before her death she decided to present to Hoboken a recreation pier on the river walk for the benefit of the poor, and her plans were carried out by her sons.

Stillé, Charles Janeway, historian, born in Philadelphia, Pa., Sept. 23, 1819; died in Atlantic City, N. J., Aug. 11, 1899. He was graduated at Yale in 1839, and was admitted to the bar, but devoted himself to literary pursuits. During the civil war he was an active member of the United States Sanitary Commission, of which he afterward became the historian. In May, 1866, he was made Professor of History and English Literature in the University of Pennsylvania, and in June, 1868, was chosen provost, which office he held until 1880. Dr. Stillé received the degree of LL. D. from Yale in 1868. In addition to numerous addresses and pamphlets, he published *How a Free People conduct a Long War* (Philadelphia, 1862); *Northern Interests and Southern Independence: A Plea for United Action* (1863); *Memorial of the Great Central Fair for the United States Sanitary Commission* (1864); *Historical Development of American Civilization* (1864); *History of the United States Sanitary Commission* (New York, 1866); *Annals of the United States Christian Commission* (Philadelphia, 1868); *Memoir of the Rev. William Smith, D. D.* (1869); *Studies in Mediæval History* (1882); *Beaumarchais and the Lost Million* (1886); *The Life and Times of John Dickinson* (1891); and *Major-Gen. Anthony Wayne and the Pennsylvania Line in the Continental Army* (1893). His work on mediæval history has wide use as a college text-book.

Stilson, Daniel Chapman, inventor, born in Durham, N. H., March 25, 1830; died in Somerville, Mass., Aug. 21, 1899. At the outbreak of the civil war he was a machinist in the Charleston Navy Yard, and in 1862 he was appointed third assistant engineer in the navy, and assigned to the steamer R. B. Forbes. The vessel sailed from New York Feb. 22, and two days later was wrecked off the coast of North Carolina. All the officers and crew reached the shore, and Mr. Stilson, with other members of the crew, was transferred to the frigate Roanoke, and later to the Somerset, which was engaged on blockade duty off the Cuban coast. On Aug. 31, 1862, he resigned on account of failing health; Aug. 14, 1863, he was reappointed to the navy as acting second assistant engineer on the Queen, and Nov. 16, 1864, he was promoted acting first assistant engineer. Jan. 25, 1865, he sailed with Farragut on his first voyage as vice-admiral. After the war Mr. Stilson resumed his trade of machinist, and later he invented the wrench that has made

his name known throughout the mechanical world, and devised other apparatus, including a safety fire sprinkler. He served in the Somerville Common Council in 1884, and in the Board of Aldermen in 1885-'86.

Stockdale, Thomas Ringland, jurist, born in Pennsylvania, in 1828; died in Summit, Miss., Jan. 8, 1899. He was graduated at Jefferson College in 1856; removed the same year to Covington County, Mississippi, to teach; and was principal of the Holmesville Academy, in Pike County, in 1857-'58. In 1859 he was graduated at the law department of the University of Mississippi, and began practicing. He enlisted in the Confederate service at the outbreak of the civil war; became a lieutenant adjutant of the 10th Mississippi Infantry, and major in 1861; retired from the regiment and organized and became commandant of a battalion of cavalry in 1862; and was promoted lieutenant colonel of the 4th Mississippi Cavalry in 1864. He commanded his regiment at the battle of Harrisburg, near Tupelo, July 14, 1864, where he was wounded, and was paroled with Gen. Forrest's men, May 12, 1865. After the war he served a term as justice of the Supreme Court of Mississippi, was a presidential elector on the Democratic ticket in 1872 and 1884, and was elected to Congress in 1886, 1888, 1890, and 1892.

Stone, Frederick, jurist, born in St. Mary's County, Maryland, Feb. 7, 1820; died near La Plata, Md., Oct. 17, 1899. He was educated at St. John's College, Annapolis. He was elected as a Democrat to the Maryland Legislature in 1859, and in 1864 was elected to Congress, and he held his seat there till 1871. In that year he was returned to the Legislature, and in 1876 was a member of the Constitutional Convention. Later he became a Republican, and in 1882 was elected chief justice of the 7th Judicial Circuit Court of Appeals. His term expired by constitutional limit of age in 1890.

Stone, Marvin Chester, inventor, born in Portage County, Ohio, in 1842; died in Washington, D. C., May 17, 1899. In boyhood he made many mechanical articles of practical utility. He was a student in Oberlin College, but his course was interrupted by the civil war, in which he served with the National army. Subsequently he undertook a theological course, but abandoned it for journalism in Washington. After a few years he applied himself wholly to inventing, manufacturing, and philanthropic work. Among his original devices are a machine for making paper cigarette holders, one for making paper tubes for use in place of straws with cold drinks, and a method for coloring fine china and other wares in imitation of the famous "peachblow vase." He was highly successful as a manufacturer, and he made his factory a model establishment, providing within it a library of standard fiction and other works, a music room, a hall for debates and social functions, and a large dancing floor, all for the exclusive use of his operatives and their friends. Several years ago Mr. Stone, in association with two or three others, erected two blocks of model tenement houses for the colored people of Washington, where they might have good home privileges at a low rent.

Stotsenburg, John Miller, military officer, born in New Albany, Ind., Nov. 24, 1858; killed in battle near Quingua, Luzon, Philippine Islands, April 23, 1899. He was graduated at West Point in 1881, and commissioned a second lieutenant in the 6th Cavalry; was promoted first lieutenant, Aug. 19, 1899; was graduated at the United States Infantry and Cavalry School in 1897, and became captain, Dec. 14, 1898. On the call for volunteers

for the war against Spain he was commissioned major of the 1st Nebraska Infantry (May 9, 1898), at the request of the State authorities, who had become attached to him while he was Professor of Military Science and Tactics in the University of Nebraska from December, 1897. On June 15 he sailed with his regiment for Manila, and with it took part in the operations against Malate Fort and in the attack and capture of Manila on Aug. 13. On Nov. 10 he was promoted colonel, and within a few weeks he overcame by his soldierly conduct a strong opposition in the regiment against his advancement. On April 23, 1899, the American troops had an encounter with a body of insurgent Filipinos near Quingua, four miles northeast of Malolos, the 1st Nebraska Infantry suffering the most severely, and the affair developed into a bloody, though successful fight. The Filipinos occupied a horseshoe trench about a mile long on the edge of a wood, and had a strong outpost. The 1st Battalion of the 1st Nebraska was sent to recover the body of a slain cavalryman, and it advanced till checked by a fierce volley from the trench. The battalion lay about 800 yards from the trench, under fire, for two hours. Re-enforcements were called, and Col. Stotsenburg, who had spent the night with his family in Manila, rushed to the rescue with the 2d Battalion. He ordered a charge, and when at the head of his men he came within 200 yards of the insurgents he was shot in the breast, and died instantly.

Strieby, Michael E., clergyman, born in Columbiana, Ohio, Sept. 26, 1815; died in Clifton Springs, N. Y., March 16, 1899. He accompanied his parents to Worcester, Ohio, in boyhood; entered Hudson College in 1830, and in 1835 he and his classmates went to the newly established Oberlin College, where he was graduated in 1838. Failing health forced him to abandon study for a year, and he then entered the theological seminary at Oberlin, but was able to remain there only a short time. As his health recovered he began preaching as a supply. In April, 1842, he was ordained pastor of the Free Presbyterian Church at Mount Vernon, Ohio, and he held this charge eleven years, during which the church became Congregational. In 1852 he went to the newly organized Plymouth Congregational Church at Syracuse, N. Y., remaining there nearly twelve years. He was then chosen secretary of the American Missionary Society. He had much to do with the establishment of Fisk University, Hampton Normal and Industrial Institute, Atlanta University, and about 20 other chartered institutions, besides the organization of scores of churches. In 1896 he retired.

Summers, Thomas Osmond, surgeon, born in Charleston, S. C., Nov. 10, 1849; died in St. Louis, Mo., June 19, 1899. He served in the civil war on the Confederate side. After the war he studied medicine in Nashville, Tenn., and later served as Professor of Anatomy at Vanderbilt University. With 15 students of the university he volunteered his services during the yellow fever epidemic in Memphis. Having discovered a new method for treating the disease, he was placed in charge of suppressive measures at Jacksonville, Fla. Later he was sent by the Federal Government to study the disease in Cuba and South America. In 1895 he was called to the chair of Anatomy in the College of Physicians and Surgeons in St. Louis. In the Spanish-American War he was surgeon of the 2d Tennessee Volunteers. He accompanied the army to Santiago, and had charge of the hospital of the 6th Brigade, 5th Corps. He published an Anatomy (Nashville, 1875).

Sweeney, John R., composer, born in 1838; died in Chester, Pa., April 10, 1899. For many years he was Professor of Music in the Pennsylvania Military College, Chester, and during the civil war was leader of the band of the 3d Delaware Regiment. He was much in demand as a leader of the singing at large religious assemblies; was a familiar figure at Ocean Grove, Round Lake, and the Thousand Islands; and was the editor of more than a score of song books. His best-known compositions are Beulah Land, Calvary, More about Jesus, Showers of Blessing, and Little Ones like Me.

Synnot, Joseph J., educator, born in Great Neck, Long Island, N. Y., Feb. 6, 1863; died in Montclair, N. J., March 16, 1899. He was graduated at St. Francis Xavier College, New York city, in 1882, and then entered the University of Innsbruck, Austria, where he studied six years. In 1888 he received the degree of D. D. from that university, being the first American to be so honored, and in 1892 Yale gave him the degree of A. M. On his return to the United States he was appointed curate to Dean McNulty in Paterson, N. J. In the autumn of 1889 he was appointed Professor of the Sacred Scriptures, Hebrew, and the Classics in Seton Hall College, South Orange, N. J. Subsequently he taught theology, philosophy, and moral theology there till 1897, when he was chosen president of the college.

Tabor, Horace Austin Warner, miner, born in Holland, Vt., Nov. 30, 1830; died in Denver, Col., April 10, 1899. He received a common-school education, learned the stonemason's trade, and worked in Massachusetts till 1855, when he engaged in farming in Kansas. There he took an active part in the Free-soil movement, and became a member of the Topeka Legislature that was dispersed by order of President Pierce. Impressed with the narratives of trappers from the Rocky mountains concerning marvelous discoveries of gold along Cherry creek, Colorado, he set out with all his possessions in a "prairie schooner," and reached the new mining camp in the autumn of 1859. In the following spring he settled in California Gulch, afterward named, at his suggestion, Leadville. He worked steadily at mining with only moderate success till 1865, when he became postmaster and opened a small general store. Combining mining and storekeeping, he toiled on with no fortune in sight till May, 1878, when he and his two mining partners discovered a rich deposit of silver in what was afterward known as the Little Pittsburg mine. A year later he sold his third interest in this property for \$1,000,000. This capital enabled him to engage in many large operations, and for several years every enterprise he undertook added greatly to his wealth. Within ten years from the discovery of the Little Pittsburg mine his fortune was estimated at \$9,000,000, and he was also considered one of the most extensive landowners in the world. In this period he was elected first mayor of Leadville, acquired claims that afterward yielded him several millions, put up an opera house in Leadville when it was but little more than a large mining camp at a cost of \$500,000, and, becoming interested in Denver, erected there a grand opera house that cost \$1,200,000, a block of office buildings that cost \$1,500,000, and a group of suburban residences that cost \$1,000,000. With the rapid increase of his wealth came a desire for political preferment. In October, 1878, he was elected Lieutenant Governor of Colorado. He held the office till January, 1884. He was elected United States Sen-

ator, to fill the unexpired term of Henry M. Teller, who had resigned to become Secretary of the Interior. This service only lasted from Feb. 2 till March 4, 1885. Soon after this he began to suffer serious losses, was obliged to place his great properties under mortgage, and in 1897 he lost the last of his real-estate holdings in foreclosure proceedings. He then hired a tenement in Denver for his family at a rent of \$12 a month, shouldered a pick, and went off prospecting for another fortune. For some time he operated in Boulder County, but from lack of capital he met with small success. In 1898 he became postmaster of Denver.

Talbot, Israel Tisdale, physician, born in Sharon, Mass., Oct. 20, 1829; died in Hingham, Mass., July 3, 1899. In 1843 he went to Baltimore, where he taught in a private school. He was graduated at the Pennsylvania Homœopathic Medical College in 1853, and at the Harvard Medical College in 1854. From 1854 till 1858 he continued his medical studies in Europe. From 1858 he practiced in Boston. He originated the Homœopathic Medical Dispensary, and acted as its secretary. He was active in organizing the Boston University School of Medicine, of which from its commencement he was dean and Professor of Surgery. He was vice-president of the International Homœopathic Congress held in London in 1881, and president of a similar congress held in Atlantic City in 1892. He established and for several years edited the New England Medical Gazette.

Taylor, Charles Fayette, surgeon, born in Williston, Vt., April 25, 1827; died in Los Angeles, Cal., Jan. 25, 1899. He was graduated at the medical department of the University of Vermont in 1856, and after studying the Swedish movement cure under Dr. Roth in London, settled in New York city and applied himself to the treatment of crippled and deformed persons. In 1866 he urged on Howard Potter, James Brown, and other philanthropic citizens the need of an institution where the crippled poor could receive scientific treatment, and his efforts resulted in the founding of the New York Orthopædic Dispensary and Hospital, which he served as surgeon till 1876. While holding this place he was also appointed consulting orthopædic surgeon to St. Luke's Hospital. Dr. Taylor was widely known by his inventions and writings in the line of orthopædic surgery. The former include an antero-posterior spinal apparatus and other contrivances for the correction of spinal deviations; a long counter-extension hip splint; a jointed supporting splint for secondary use in hip disease; contrivances for correcting deformities in the feet and legs; and an osteoclast and a genuclast. His inventions secured medals at the international expositions at Vienna in 1873 and at Philadelphia in 1876. His publications include papers on Synovitis of the Knee Joint, Emotional Prodigality, and Bodily Conditions as Related to Mental States, and volumes on the Theory and Practice of the Movement Cure (Philadelphia, 1861); Spinal Irritation, or Causes of Backache in American Women (New York, 1864); Mechanical Treatment of Angular Curvature of the Spine (1864); Infantile Paralysis and its Attendant Deformities (Philadelphia, 1867); Mechanical Treatment of Disease of the Hip Joint (New York, 1873); and Sensation and Pain (1881).

Taylor, Henry Augustus, railroad constructor, born in New York city, April 8, 1839; died there, April 8, 1899. He was educated in his native city, and for some years made his home

in Milford, Conn., where he had a fine estate—Laurelton Hall. In 1867 he went to the Northwest, and was engaged in constructing railroads in Iowa, Wisconsin, and Minnesota. Later he was similarly engaged in New York, Ohio, and Kentucky. He built the Buffalo, Rochester and Pittsburg Railroad into Rochester in 1878, and also built part of the Rome, Watertown and Ogdensburg road. About nine years ago he conducted the reorganization of the Wheeling and Lake Erie Railroad, securing for the road an entrance into Toledo, Ohio. He held important interests in large railroads, and had served acceptably in several reorganizations and receiverships. Among his benefactions are the church presented to the Methodist Episcopal congregation of Milford and the public library presented to the town.

Taylor, Joseph Danner, soldier and congressman, born in Belmont County, Ohio; Nov. 7, 1830; died in Cambridge, Ohio, Sept. 19, 1899. He was educated in public schools and at Madison Seminary. He then taught school, and studied at the Cincinnati Law School. In 1861 he purchased a half interest in the *Guernsey Times*, which he owned until 1871. In 1863 he was elected prosecuting attorney of Guernsey County. In 1863 he became a captain in the 88th Ohio Infantry, and shortly afterward he was appointed a judge advocate. At the close of the war he was appointed citizen judge advocate at Indianapolis. He represented his State in the Philadelphia Loyalist Convention in 1866. He was president of the Guernsey National Bank of Cambridge, and also president of the Ohio National Bank of Washington, and was identified with many large industrial interests. He was elected to the Forty-seventh Congress, and continued a member of that body through the Fifty-second Congress.

Thayer, Eli, educator, born in Mendon, Mass., June 11, 1819; died in Worcester, Mass., April 15, 1890. He was graduated at Brown University in 1845, and became principal of Worcester Academy. In 1848 he founded the Oread Institute—"the abode of the mountain nymphs"—a collegiate school for young ladies, in Worcester, which he conducted with marked success till he began his notable work in behalf of free Kansas. Within this time he served on the school and aldermanic boards of Worcester and in the Legislature. At a meeting in Worcester to protest against the repeal of the Missouri compromise, March 11, 1854, Mr. Thayer announced his celebrated plan of freedom. It was simply to take possession by lawful means of the new Territories through organized emigration of free State people, sustained by a base of supplies. This plan he defined as "business antislavery," as distinguished from "political and sentimental antislavery," both of which had been tried for many years and failed. While in the Legislature (1853-'54) he secured the passage of an act to incorporate the Massachusetts Emigrant Aid Company, and then organized and directed the practical work which resulted in the settlement of Lawrence, Topeka, Manhattan, and Ossawatimie. He also labored till 1857 to induce the Northern States to unite in sending antislavery settlers into Kansas under his plan, and undertook a colonization scheme in Virginia which the civil war interrupted after he had founded the town of Ceredo. He was elected to Congress as a Republican in 1856, and served till 1861. There his speeches on Central American Colonization, on the Suicide of Slavery, and on the admission of Oregon brought him much reputation. While

the civil war was in progress he proposed a plan for the military colonization of Florida as a war measure, and subsequently urged his general scheme as a remedy for the evil of polygamy in Utah. Alluding to Mr. Thayer's work, Charles Sumner said: "The State of Kansas should be named Thayer. I would rather accomplish what he has done than have won the victory at New Orleans." Mr. Thayer published a volume of his speeches in Congress, several lectures, a history of the Emigrant Aid Company, and the *Kansas Crusade*—a graphic account of his great work. He had also invented a hydraulic elevator, a sectional safety steam boiler, and an automatic boiler cleaner.

Thayer, William Wallace, lawyer, born in Lima, N. Y., July 15, 1827; died in Portland, Ore., Oct. 17, 1899. He studied law, was admitted to the bar at Rochester in 1851, and began practice at Tonawanda. In 1862 he removed to Lewiston, Ida., which he represented for a term in the Territorial Legislature. He was elected District Attorney of the 3d Judicial District in 1866, resigning in 1867 to remove to Portland, Ore. In 1878 he was elected Governor on the Democratic ticket, and during his administration the public service was reorganized and a large State debt was paid. In 1884 he was elected for six years judge of the State Supreme Court.

Thompson, Elizabeth, philanthropist, born in Lyndon, Vt., Feb. 21, 1821; died in Littleton, N. H., July 20, 1890. She was the daughter of Samuel Rowell, a poor farmer, and at the age of nine years went out to service. In 1843, while she was on a visit to Boston, her remarkable beauty attracted the attention of Thomas Thompson, a millionaire, and a year later they were married. He was well known as a philanthropist, and at his death, in 1869, Mrs. Thompson, who was left with the income of his great estate, followed his example in contributing largely to all kinds of charities. She devoted \$10,000 to the investigation of yellow fever in the South; founded the town of Longmont at the base of the Rocky mountains, giving 640 acres of land and \$300 to each colonist; and contributed largely to the purchase of the Vassar College telescope. For her presentation to Congress of Francis B. Carpenter's painting of the Signing of the Emancipation Proclamation she was granted the freedom of the floor. She contributed large sums to the American Association for the Advancement of Science, and was made its first patron. In December, 1888, she was stricken with paralysis, and from that time she was not able to continue her charitable work. On July 8, 1891, she was adjudged insane by a Kansas City jury, and a curator was appointed to care for her property in Missouri. She left an estate valued at \$400,000, with no public bequests. She was author of a temperance tract entitled *Figures of Hell*, which was widely circulated.

Thompson, Frederick Ferris, financier, born in New York city in 1836; died there, April 10, 1899. He was graduated at Williams College in 1851. In 1857 he married a daughter of Myron H. Clark, then Governor of New York; soon afterward established the banking house of Thompson Brothers, and within a year succeeded to his father's business. In later years he founded the National Currency Bank in New York, and was a founder of the First National Bank of Detroit, the Columbia Bank in Chatham, N. Y., and the First National Bank of New York city. He was also a director in the Maritime Canal Company of Nicaragua, and was interested in many manufacturing enterprises. Mr. Thomp-

son was highly successful in his business relations, and was a constant promoter of educational institutions. He presented Williams College with two chemical laboratories and a fund to provide a free course of lectures; erected a building for Vassar College at a cost of \$200,000; was a large contributor to the funds for erecting the buildings of the Teachers' College in New York city and the Ontario Orphan Asylum; and for many years had supported four students each in Williams and Vassar. The two last-named institutions were especially dear to him, and beside his special gifts he aided them liberally whenever there was need.

Thompson, John Polk, inventor, born in Glasgow, Scotland, in 1838; died in Olneyville, R. I., Sept. 18, 1899. In 1848 he went to New York city. He was graduated at the high school, and then learned the watch-making and jewelry business. A natural aptitude for mechanics led him into the mill business, and at the age of twenty-six he assumed charge of the carding department of the Sprague Cotton Mill, at Baltic, Conn. Afterward he was superintendent successively of the Voluntown Mill, the Robeson Mills, at Fall River, and the Fall River Print Works. For a considerable period he now conducted a watch and jewelry establishment in Fall River, but was induced to return to mill life, starting the Shove Mill, in Fall River. He next went to Phenix, Md., as superintendent, and later to Olneyville, R. I., as superintendent and general manager of the five Ross mills. In 1898 he went South to assume control of the Mammoth Springs, Ark., Mills and the Bluff City Mill at Memphis, Tenn. Mr. Thompson invented 14 distinct mechanical devices, each of which produced radical improvements in methods of manufacturing; they include carding appliances, stop and let-off motions, and self-threading shuttles.

Thomson, Frank, engineer, born in Chambersburg, Pa., July 5, 1841; died in Merion, Pa., June 5, 1899. He studied at Chambersburg Academy, and then entered the shops of the Pennsylvania Railroad at Altoona. He spent four years in obtaining a practical and scientific knowledge of mechanical engineering, and when he left the shops he was able to build a locomotive. During the civil war he rendered valuable service to the Federal Government as chief assistant to the Assistant Secretary of War. He constructed railroads and bridges and directed the transportation of troops. In June, 1864, he was appointed superintendent of the eastern division of the Philadelphia and Erie Railroad. In March, 1873, he was made superintendent of motive power of the Pennsylvania Railroad at Altoona. He relinquished this place July 1, 1874, to become general manager of the Pennsylvania Railroad system east of Pittsburg and Erie. Here he introduced reforms in the management and maintenance of the road; the standard track and solid roadbed owe their existence to his efforts. Oct. 1, 1882, Mr. Thomson became second vice-president; Oct. 27, 1888, was advanced to first vice-president; and Feb. 3, 1897, was elected president of the Pennsylvania Railroad Company.

Tiemann, Daniel Fawcett, manufacturer, born in New York city, Jan. 9, 1805; died there, June 29, 1899. In 1818 he became clerk in a wholesale drug house. He entered his father's paint factory in 1824 as an employee; in 1827 became a partner, and in 1848 succeeded to the business. He was a member of the first board of education of New York city, and was elected several times to the Board of Aldermen. In 1857 he was elected mayor on an independent reform

ticket, in opposition to Fernando Wood. The placing of the names of streets on the 'street lamps was due to a suggestion from him. In 1871 he was elected State Senator, serving one term, after which he retired from political life. He was a sound-money Democrat, and in 1896 cast his first Republican vote. He was a trustee of Cooper Union from its organization.

Truesdell, Gaylord Sangston, artist, born in Waukegan, Ill., in 1859; died in New York city, June 13, 1899. He studied painting at the Pennsylvania Academy of Fine Arts, went to Paris in 1885, and, with the exception of a year spent in Washington, lived abroad till early in 1899, when he came to New York city. Some of his best-known pictures are *Going to Pasture*, now in the Corcoran Art Gallery; *Shepherd and Flock*, which received a third medal at the Paris Salon; and *On the Beach*, exhibited in the spring Academy of 1899.

Tucker, Gideon J., lawyer and journalist, born in New York city, Feb. 10, 1826; died there July 7, 1899. He received a common-school education, studied law, and was admitted to the bar in 1847. In 1853 he was appointed clerk in the New York customhouse, but in a short time he went to Albany as editor of the *Argus*. In 1855 he sold his interest in that paper and founded the *New York Daily News*. In 1857 he was elected Secretary of State, and in the next year he became a regent of the university and received the degrees of A. M. and LL. D. In 1882 he was elected to fill a vacancy in the office of surrogate of New York County, and in the following year he was re-elected for a full term of three years. He was elected to the Assembly in 1865. He drafted and carried through the statute for the prevention of cruelty to animals and the act establishing the New York Free College. In 1866 he was again elected surrogate by a majority of 13,500 votes, the only other candidate on the same ticket being defeated by 19,000. He prepared and published *Tucker's Surrogate Court Reports*. From 1868 until 1875, with the exception of being supervisor of the State census in 1875, Judge Tucker practiced law in New York city. In 1875 he was one of those who bolted from Tammany Hall and founded Irving Hall. In 1886 he was identified with the mayoralty campaign of Henry George. He was a member of the New York State Constitutional Conventions of 1867 and 1894. The attention of the whole country was attracted to him in 1886 by a letter of his addressed to President Cleveland, in which he declined the appointment as commissioner to examine about 100 miles of railroad in Oregon.

Turini, Giovanni, sculptor, born near Verona, Italy, May 23, 1841; died in New York city, Aug. 27, 1899. He studied sculpture in Milan and Rome, becoming a professor of the art in the former city. He was a volunteer in Garibaldi's army in 1866. In 1867 he came to New York city, where he practiced his art until his death. He made several statues for the Venezuelan Government, and had received a commission to make three equestrian statues of Venezuelan heroes and a colossal statue of Liberty. One of them—that of Marshal Sucre—was completed and sent to Caracas; the clay model of the General Palz statue was finished, and the Bolivar statue was cast in plaster and accepted by the art commission for Central Park. For this work he was to have received \$75,000, but was paid only \$8,000. This failure of the Venezuelan Government to fulfill its obligations probably hastened his death, which took place while he was at work

on an heroic statue of John Paul Jones for the Dewey arch. Among his other works are the group Angelica and Medoro, the bust of Pope Leo XIII in the Vatican, the statue of Garibaldi in Washington Square, and the colossal bust of Mazzini in Central Park.

Turner, John Wesley, military officer, born in Saratoga County, New York, July 19, 1833; died in St. Louis, Mo., April 8, 1899. He was graduated at West Point in 1855; entered the army as a brevet second lieutenant in the 3d Artillery; was promoted second lieutenant in the 1st Artillery the same year, and first lieutenant April 21, 1861, and resigned while captain and commissary of subsistence Sept. 4, 1871. His services in the regular army prior to the civil war comprised chiefly participation in the Seminole Indian War in Florida and garrison duty. At the reduction of Fort Pulaski he commanded one of the principal breaching batteries. In September, 1863, he was brevetted a major in the regular army and commissioned a brigadier general of volunteers for gallantry at Fort Wagner. He was transferred to the Army of the James, and received command of a division of the 10th Corps. He rendered effective service in the campaign before Richmond, and was brevetted a lieutenant colonel in the regular army. From August, 1864, till March, 1865, he was chief of staff in North Carolina and Virginia, and then, as commander of an independent division of the 24th Corps, he took part in the operations culminating in the surrender at Appomattox. Under date of March 13, 1865, he was brevetted colonel, United States army, for the capture of Fort Gregg; major general of volunteers for meritorious services on several occasions; and brigadier general and major general, United States army, for services during the war. He was mustered out of the volunteer service in September, 1866, and thence till his resignation served as depot commissary in St. Louis and in the Indian Department. After leaving the army he became a civil engineer in St. Louis, and for several years was a member of the Board of Public Works.

Valentini, Philip J. J., archaeologist, born in Berlin, Germany, in 1828; died in New York city, March 16, 1899. His father was an Italian, a teacher of languages. The son received a careful training in philology, spent some time at the Gymnasium of Targau, and afterward studied jurisprudence at the University of Berlin. In 1854 he founded the seaport of Puerto Limon, in Costa Rica, under Government auspices, and there learned that the people could give no account of their ancestors. On his return to Germany he made diligent search for historical information regarding early Spanish colonization in Central America. He then spent eleven years in further research, which resulted in the preparation of numerous manuscripts that the Government desired to publish but political disturbances prevented. These studies induced Dr. Valentini to investigate the prehistoric remains of Guatemala and neighboring regions. He made such progress in deciphering the hieroglyphics on monuments and pre-Columbian manuscripts that in thirty years his work brought him to the front rank of American archaeologists. His interpretation of the famous Mexican calendar stone added greatly to his reputation. His last work was *A Study of the Voyage of Pinzon to America* (Berlin, 1898).

Vance, Robert Brank, soldier, born in North Carolina in 1828; died in Asheville, N.C., Nov. 28, 1899. He was a brother of Zebulon B. Vance, entered the Confederate service as a captain, and in

1863 was appointed a brigadier general. Near the close of the war he was captured, and was released on parole by President Lincoln that he might obtain clothes for the Confederate prisoners. He made a trip through the North and secured a large amount of clothing and money. He was elected to Congress in 1872, and re-elected for the five succeeding terms. In 1885 he was appointed assistant commissioner of patents.

Vanderbilt, Cornelius, capitalist, born in New Dorp, Staten Island, N. Y., Nov. 27, 1843; died in New York city, Sept. 12, 1899. He was the eldest son of William Henry Vanderbilt, and the favorite grandson of Commodore Cornelius Vanderbilt. He was educated in the common schools of Staten Island and in a private academy in New York city. When he left school he became a clerk in the Shoe and Leather Bank, and subsequently in the banking house of Kissam Brothers. In 1865 he was made assistant treasurer of the Harlem Railroad, and began his practical study of railroad management and finance. In 1867 he was made treasurer of the company, which office he filled ten years. In 1877, after the death of his grandfather, he was made first vice-president of the New York Central Railroad, with entire control of the finances of the company. Upon his father's death, Dec. 8, 1885, he became the head of the Vanderbilt family, and for ten years was the chief director of the Vanderbilt system of railroads. On July 14, 1896, he was stricken with paralysis, from which he never fully recovered, the three last years of his life being spent mainly at health resorts. At the time of his death he was associated as director, or in other official capacity, with 54 railroad companies. During his busy life he devoted a set portion of every day to the charitable organizations with which he was connected and to the consideration of his own private beneficences, which were numerous. In April, 1886, he united with his brothers in a gift of \$250,000 for the erection of the Vanderbilt Clinic of the College of Physicians and Surgeons. In 1897 he presented to St. Bartholomew's Home, in East Forty-second Street, an addition costing \$250,000. He was much interested in the railroad branches of the Young Men's Christian Association, and was personally active in establishing them. His gifts to Yale College amounted to about \$1,500,000, among them Vanderbilt Hall, a dormitory intended as a memorial to his son William H., who died there while a student. He presented Rosa Bonheur's Painting The Horse Fair to the Metropolitan Museum of Art, having paid \$53,000 for it at the sale of the Stewart collection. He gave \$100,000 to the fund for the new Episcopal Cathedral of St. John the Divine. He was a member of the Finance Committee of the Episcopal Board of Foreign Missions, and of the Executive Committee of the International Young Men's Christian Association; a trustee of the Seamen's Mission of the Episcopal Church, the Hospital for the Ruptured and Crippled, the Museum of Natural History, the Metropolitan Museum of Art, the General Theological Seminary of the Episcopal Church, and of the American Bible Society; a vestryman of St. Bartholomew's Church; vice-president of the Young Men's Christian Association; and chairman of the Grand Central Station Branch. He left an estate valued at about \$70,000,000, the bulk of which he devised to his youngest son, Alfred Gwynne. His eldest son, Cornelius, with whom he had quarreled, was practically cut off, receiving only the income of \$1,000,000, placed in trust. The other son and two daughters received equal shares—about \$7.

500,000 each. Upon the reading of the will, Alfred offered to his eldest brother from his portion an amount sufficient to make his share equal to that received by the other brother and sisters, and this proposition was accepted by Cornelius. (See GIFTS AND REQUESTS.)

Vaughan, Alfred Jefferson, soldier, born in Dinwiddie County, Virginia, May 10, 1830; died in Indianapolis, Ind., Oct. 1, 1899. He was graduated at the Virginia Military Institute in 1851, and began practice as a civil engineer. He made a survey of the Hannibal and St. Joseph Railroad, and later was United States surveyor for the district of California. He entered the Confederate army in 1861, and rose to the rank of major general. He was wounded at Columbus, Ky., and in the Chickamauga campaign he lost a leg. After the war he farmed in Mississippi till 1872, and was master of the State Grange. He entered into business in Memphis in 1873, and served as clerk of the criminal court of Shelby County, Tenn., from 1878 till 1886.

Walsh, Patrick, journalist, born in Ballingarry, County Limerick, Ireland, Jan. 1, 1840; died in Augusta, Ga., March 19, 1899. In 1848 his parents removed to Charleston, S. C., where he was apprenticed to the printer's trade. In 1859 he entered Georgetown (D. C.) College, where he remained till South Carolina seceded, when he returned to Charleston and entered the military service of the State. He removed to Augusta, Ga., in 1862, and obtained employment on the Daily Constitution, of which he became local editor in 1863. In 1864 he became associated also in the publication of the Pacificator, a weekly paper. In 1866 he was appointed Southern agent of the New York Associated Press, and in 1867 became business manager of the Chronicle and Sentinel, which in 1877 was consolidated with the Constitution under the name of the Augusta Chronicle. He was elected to the city council in 1870, to the Legislature in 1872, to the State and National Democratic Conventions in 1880, and in 1884 was a delegate to the National Convention in Chicago. On April 2, 1894, Gov. Northern appointed him United States Senator to fill the vacancy caused by the death of Senator Alfred H. Colquitt, and he served till March 4, 1895. At the time of his death he was mayor of Augusta.

Waterston, Mrs. Anne Cabot Lowell (Quincy), author, born in Boston, Mass., June 27, 1812; died there, Oct. 14, 1899. She was the last surviving daughter of Josiah Quincy, the second mayor of Boston and the president of Harvard College. She married the Rev. Robert C. Waterston, a Unitarian clergyman, with whom she subsequently traveled abroad extensively, and after his death, in 1893, her life was passed in retirement. She contributed to magazines and newspapers, but her only published books are Verses (Boston, 1863) and Adelaide Phillips: A Record (1883).

Watterson, John Ambrose, clergyman, born in Blairsville, Pa., May 27, 1844; died in Columbus, Ohio, April 17, 1899. He was graduated at Mount St. Mary's College, Emmittsburg, Md., in 1865; was ordained in the Roman Catholic Church, Aug. 8, 1868; became a member of the faculty of Mount St. Mary's immediately after ordination, and succeeded the Rev. John McClosky, D. D., as president of the college in 1877. In 1878 he received the degree of D. D. from Georgetown College. In 1880 Dr. Watterson was chosen Bishop of Columbus, Ohio. He applied himself especially to advancing the educational interests of his diocese, and by the end of 1884 he had

established a college in the city and also had 3 academies and 32 parochial schools under his supervision. In September, 1888, the pontifical college Josephinum was established in the city for the education of pious and talented boys without means for the priesthood. This institution is immediately subject to the Holy See; was promoted to a pontifical college by Leo XIII in 1892, and was incorporated by the State of Ohio with all the rights and privileges accorded to American universities in 1894.

Webb, William Henry, shipbuilder, born in New York city, June 10, 1816; died there, Oct. 30, 1899. He began to learn the trade of shipbuilding in the yard of his father, Isaac Webb, in 1836. Soon afterward, under a subcontract with his father, he built the Oxford, a packet ship of the Black Ball Line. He became a partner in the firm of Webb & Allen in 1840 and from 1843 until his retirement, in 1868, he carried on the work at the shipyard on the East river, Brooklyn. His was the largest private establishment of its kind in the world at that date. More vessels, and many of the largest tonnage, were built at his yard from 1840 to 1868 than were built by any other one firm. He launched at one tide 3 large vessels in twenty minutes. He had built more than 150 large ships at the date of his retirement. He devised a new model for naval vessels, which was rejected by both the United States and France, but was accepted by Russia, and upon its lines the screw frigate General Admiral was built for that Government in 1858. He built 2 frigates for Italy, for which the order of Saints Maurice and Lazarus was conferred upon him by King Victor Emmanuel. For France he built the Dunderberg, afterward the Rochambeau, the fastest war vessel of her time. He conducted several steamship lines after his retirement from shipbuilding. For fourteen years he was president of the New York city Council of Municipal Reform. In his declining years he prepared a work on Practical Shipbuilding. He also built and endowed Webb's Free Academy and Home for Shipbuilders on Fordham Heights.

Webster, George Parmelee, legislator, born in Watertown, Conn., in 1828; died in New York city, Jan. 11, 1899. When fifteen years old he went to Newport, Ky., where he began studying law. He spent three years mining in California, and after his return and admission to the bar served two terms as city solicitor, one term as district attorney of Campbell County, and two terms in the Legislature. When the Legislature came to vote on the question of secession, the votes were a tie when his name, the last on the roll, was reached. He voted "No," and thus kept Kentucky in the Union. Soon afterward he resigned his seat, and was appointed a captain and assistant quartermaster in the National army. Subsequently he was promoted major, and had charge of the fitting out of Gen. Burnside's expedition to North Carolina. In 1867 he removed to New York city and engaged in law practice. In 1889 he was elected to the Legislature, where he served six consecutive terms, during which he introduced the first bill providing for the creation of the Greater New York city, and the bills to organize the Aquarium in old Castle Garden, to construct the Park Avenue viaduct, and to build three large bridges in the city. In 1893 he retired from active life.

Wells, James Madison, politician, born near Donaldsonville, La., in 1808; died there, Feb. 28, 1899. He held various political offices. In 1864 he first attracted national attention by his elec-

tion to the office of Lieutenant Governor on the Union ticket headed by Michael Hahn (see obituary in the Annual Cyclopædia for 1886) in the election ordered by President Lincoln for the part of Louisiana that was held by the Federal forces. In January, 1865, Gov. Hahn resigned his office on being elected United States Senator, and Mr. Wells succeeded to it. In May he provoked a conflict with Gen. Banks by setting aside the register of voters that had been made under the latter's direction. The Democratic convention that met in October nominated him for Governor, and he was elected with the entire Democratic ticket. After the massacre of negroes in Grant Parish and the fatal riots in New Orleans in 1866 Gen. Sheridan, commander of the 5th Military District, officially accused Gov. Wells of want of energy and vigilance. Early in 1867 an effort was made in the Legislature to impeach the Governor, but a special committee reported that it would be inexpedient to press the matter at that time. On June 3 Gen. Sheridan removed Gov. Wells from his office for "having made himself an impediment to the faithful execution of the act of Congress of March 2, 1867, by directly impeding the general in command in the faithful execution of the law." Gov. Wells refused to recognize the order of removal, whereupon Gen. Sheridan sent Gen. Forsyth to eject him forcibly and obtain possession of the official records. Gen. Sheridan further charged him with "subterfuge and political chicanery." Gov. Wells made a determined fight for his office, but Gen. Grant approved Gen. Sheridan's act of removal. The particular act of which Gen. Sheridan had complained grew out of the appropriation by the Legislature of \$4,000,000 for repairing the levees broken by the overflowing of the Mississippi. Contrary to the act of the Legislature, Gov. Wells appointed a board, and acknowledged to Gen. Sheridan that his object was to disburse the money in the interest of his own party, by securing for it the vote of its employees (see Gen. Sheridan's letter to Secretary Stanton, dated June 3, 1867). Within five years Gov. Wells had acted as a Democrat, a Republican, and again as a Democrat. He next became conspicuous in national politics in 1876, when he was chairman of the State Returning Board, which declared that, through frauds in Vernon Parish and elsewhere, the Federal election returns were false, and that the Hayes presidential electors had been chosen. In 1877, when the Democrats came into power in Louisiana, he was tried and found guilty for his participation in what the Democrats called "the returning board steal," but the State Supreme Court dismissed the finding on a legal technicality.

West, George Warren, soldier, born in Lowell, Mass., July 19, 1832; died in Athol, Mass., May 27, 1899. At the outbreak of the civil war he enlisted in the 5th Massachusetts Infantry, but resigned to become a captain in the 10th Maine Infantry. He was promoted to major and colonel of the 17th Maine Infantry, and brigadier general for bravery at the battle of Antietam. After the war he served as special pension examiner for New York.

Weston, Lizzie (Davenport. Mrs. Charles Mathews), actress, born in New York city in 1828; died in Brighton, England, Jan. 4, 1899. She was a daughter of Abram Wilbur Jackson, "Black Jackson," manager of the Bowery Theater, New York, in 1845. Her first appearance was at the American Theater, New Orleans, Sept. 12, 1849. In 1851 she was a member of the company of the National Theater, New York city. Aug. 29,

1852, made her first appearance in Philadelphia as Lydia Languish at the old Chestnut Street Theater. For two seasons she was a favorite at this theater, and she became celebrated as "the beautiful Lizzie Weston." She played for a time at the Walnut Street Theater in the same city, when she met and married Adolphus ("Dolly") Davenport (Hoyt), a popular light comedian. When Charles Mathews, Jr., came to the United States in 1857 Miss Weston was at Burton's Theater, and she married him in Jersey City, N. J., Feb. 16, 1858, shortly after a divorce had been granted from her former husband. She accompanied Mr. Mathews to England, and made her *début* in London as Lady Gay Spanker in London Assurance, to her husband's Dazzle, at the Haymarket Theater, Oct. 11, 1858. She continued to play the leading female rôles with Mr. Mathews at the Haymarket until 1861, and she originated Mrs. Honeybun in Tom Taylor's Contested Election, first played at the Haymarket, June 29, 1859, and Mrs. Sebright in his Overland Route, first played Feb. 23, 1860. In 1861 Mr. and Mrs. Mathews took the Bijou Theater, London, and instituted a bright entertainment, which they repeated all over the British Kingdom for years, called Mr. and Mrs. Charles Mathews at Home. In 1864 she was the Marguerite in Burmand's burlesque Faust and Marguerite. She seldom appeared after that engagement.

Whistler, Joseph Nelson Garland, military officer, born in Green Bay, Wis., Oct. 19, 1822; died in Fort Wadsworth, New York harbor, April 20, 1899. His grandfather, John, and his father, William, were officers in the United States army. He was graduated at West Point and appointed a brevet second lieutenant in the 8th Infantry, July 1, 1846; was promoted second lieutenant in the 3d Infantry, Jan. 7, 1847; first lieutenant, June 6, 1852; captain, May 14, 1861; major of the 13th Infantry, Dec. 31, 1864; transferred to the 31st Infantry, Sept. 21, 1866, and to the 22d, March 15, 1869; promoted lieutenant colonel, 5th Infantry, Feb. 18, 1874; colonel, 15th Infantry, May 31, 1883; and was retired Oct. 19, 1886. In the volunteer service he was commissioned colonel of the 2d New York Artillery, May 9, 1863, and brevetted brigadier general, March 13, 1865. Gen. Whistler took part in the siege of Vera Cruz, the principal battles that followed, and the capture of the city of Mexico. In 1861, while on duty in Texas, he was captured by the Confederates and paroled. He served thence till March, 1863, as assistant instructor of infantry tactics at the Military Academy. After entering the volunteer service he took part in the Richmond campaign, participating in the battles of Spottsylvania, North Anna, Tolopotomoy, and Cold Harbor and the assaults on Petersburg, where he was wounded during the siege. He commanded a brigade in the defenses of Washington, and at the time of his retirement was in command of Fort Buford, Dakota Territory.

Wiles, Greenbury F., soldier, born in Zanesville, Ohio, April 4, 1826; died in Windsor, N. Y., June 14, 1899. He was a steamboat captain and owner, and when the civil war broke out he was caught with his vessel and cargo in the South. He aided in recruiting the 78th Ohio Volunteers, and went to the field as a first lieutenant in it. As lieutenant colonel he commanded the regiment in the battle of Champion Hill in 1863. At the beginning of the operations against Atlanta in 1864 he was promoted to colonel, and during most of the campaign he commanded a brigade. For these services he was brevetted brigadier general, March 13, 1865.

Williams, Edward H., manufacturer, born in Woodstock, Vt., June 1, 1824; died in Santa Barbara, Cal., Dec. 21, 1899. He was graduated at the Vermont Medical College in 1846, and spent the following year at Ann Arbor, Mich., where he engaged in civil engineering. From 1847 till 1851 he practiced medicine in Proctorsville and Northfield, Vt. In 1851 he became assistant in constructing a railroad from Coughnawaga to Plattsburg, N. Y. From 1851 till 1865 he was assistant superintendent and superintendent of various railroads, becoming in 1865 general superintendent of the Pennsylvania Railroad. On Jan. 1, 1870, he was admitted as a partner in the Baldwin Locomotive Works. In the interests of this firm he went three times to South America and Australia, twice to China and Japan, and several times to Europe, and introduced American locomotives into Russia, Mexico, Brazil, Argentine Republic, Australia, and Japan. In 1876 he was decorated with the Swedish Order of the North Star and was made a member of the Swedish Royal Academy. In 1879, while at the Sydney Exposition, he was made United States commissioner, and had control of the apportionment of the American exhibits. In 1881 he built Williams Hall for Carleton (Minn.) College, and in 1891 he presented that institution with a 16-inch telescope. In 1884 he built and endowed at Woodstock a public library. He also erected a building for the technical courses of the University of Vermont.

Williams, Henry Warren, jurist, born in Hartford, Pa., in 1830; died in Philadelphia, Pa., Jan. 25, 1899. He studied law and was admitted to the bar in 1854. In 1865 Gov. Curtin appointed him law judge of the 4th Judicial District. He was subsequently elected and re-elected by the voters of the district, and held the post for more than twenty-two years. In 1887 he was elected a justice of the State Supreme Court for the term of twenty-one years. Judge Williams was a representative of the Presbyterian Church of the United States in the Pan-Presbyterian Council in Edinburgh, Scotland, in 1877, and a vice-president of the International Sunday-school Convention in Toronto, Canada, in 1881. He was a strong temperance man throughout his life, and was actively interested in Sunday schools and Young Men's Christian Associations.

Williams, John, clergyman, born in Deerfield, Mass., Aug. 30, 1817; died in Hartford, Conn., Feb. 7, 1899. He was graduated at Trinity College in 1835, and was ordained deacon in the Episcopal Church in 1838.

After several years of foreign travel he was advanced to the priesthood in 1841, and following a year's duty as assistant minister of Christ Church, Middletown, Conn., he became rector of

St. George's Church in Schenectady, N. Y., where he remained six years. In the summer of 1848 he was elected president of Trinity College, holding office until 1853, but in the meantime he had been chosen Assistant Bishop of Connecticut. He retained ac-

tive connection with the college, serving as vice-chancellor and chancellor, successively, and was lecturer on history at the institution for nearly forty years prior to 1892. In 1854 the Berkeley Divinity School was founded at Middletown, the bishop becoming the first dean and remaining at the head of the institution until his death. At the death of the senior bishop of the diocese, in 1865, Bishop Williams became Bishop of Connecticut, and in 1887 he became senior bishop of the American Church. A few years later, on the death of the Bishop of British Guiana, he became the senior bishop, having jurisdiction in the entire Anglican communion, and on the death of Bishop Southgate, in 1894, the senior in date of consecration of all the bishops in the world acknowledging the headship of the Archbishop of Canterbury. His scholarship was as thorough as it was wide, and in intellectual force he had few superiors in his Church. He was conservative without narrowness, and he commanded the general esteem and reverence of the clergy of his communion. His personal tastes were simple and dignified both in the matter of ritual and in daily life, and in these matters, as well as in his entire devotion to his work and his wide charity toward those who differed with him, he furnished a noble example to clergy and laity alike. His published writings include *A Translation of Ancient Hymns of the Holy Church* (Hartford, 1845); *Thoughts on the Gospel Miracles* (New York, 1848); *Studies on the English Reformation*, being the Paddock Lectures for 1881 (1881); *Studies in the Book of Acts* (1888); *The World's Witness to Jesus Christ* (Bedell Lectures, 1882). His lecture notes on theological subjects and ecclesiastical history were printed for the use of his students.

Willie, Asa Hoyle, jurist; born in Washington, Ga., Oct. 11, 1829; died in Galveston, Texas, March 16, 1899. He removed to Washington County, Texas, in 1846; and, on being relieved of the disability of nonage by the Legislature, was admitted to the bar when nineteen years old. In 1852-'54 he was district attorney for the 3d Judicial District of Texas, declining a re-election that he might resume practice. He served as a Confederate soldier through the civil war. In 1866 he was elected a judge of the Supreme Court, and he held the office till October, 1867, when he and his associates were removed by Gen. Griffin, commanding the military department of Texas. He then resumed practice. In 1872 he was elected to Congress as a Democrat. Declining a re-election, he returned to practice, and soon became chief justice of the Supreme Court of Texas, holding that office six years.

Willis, Edmund Aylburton, landscape painter, born in Bristol, England, Oct. 12, 1808; died in Brooklyn, N. Y., Feb. 3, 1899. He was a son of John Aylburton Willis, an artist, and a brother of Henry Britton Willis, a fellow of the Royal Society of Painters in Water Colors. He studied art with his father, made an extended tour of Europe, and first came to the United States in 1851. After making a tour of this country he returned to England for a short time, and then established himself in Brooklyn. He was a member of the Brooklyn Art Society; painted almost wholly for private galleries; and, following a rule of an English society of painters to which he belonged, signed all his canvases "A Van Willis." His best-known paintings are *The Prairie Fire*; *The Long Sleep*; a portrait of himself in his studio; a Russian winter scene, with wolves attacking a sleigh; and an English moor, with cattle in the foreground.



Wilson, John L., philanthropist, born in Charlestown, Mass.; died in St. Augustine, Fla., April 7, 1899. He was the last of Boston's old-time West Indian merchants. He established a free hospital at Cape Haytien, Santo Domingo, where he had large business interests; built, endowed, and equipped a magnificent public library in St. Augustine; endowed a free bed in Framingham Hospital; and in 1898 provided a costly clock for the tower of the old cathedral at St. Augustine, recently restored.

Winthrop, William, military officer, born in New Haven, Conn., Aug. 3, 1831; died in Atlantic City, N. J., April 8, 1899. He was graduated at Yale College in 1851, and at its law school in 1853; took a further legal course at Harvard College, and was admitted to the bar in 1854. He began practicing in Boston, but soon removed to New York city. In April, 1861, he enlisted as a private in the 7th New York Regiment, and in October he was appointed first lieutenant in the 1st United States Regiment of sharpshooters. He was promoted captain, Sept. 22, 1862; major and judge advocate, Sept. 19, 1864; brevetted colonel, March 13, 1865; and transferred to the regular army as major and judge advocate, Feb. 25, 1867. In 1884 he was promoted lieutenant colonel and deputy judge-advocate general; on Jan. 3, 1895, became colonel and assistant judge-advocate general; and on Aug. 3 was retired. His brevet of colonel was given for faithful and meritorious service in the field and in the bureau of military justice. Under the act of Congress of June 6, 1874, he was appointed Professor of Law at West Point, where he served till 1890, subsequently being stationed in Washington till his retirement. Col. Winthrop was the author of *Digest of Opinions of the Judge-Advocates General of the Army* (Washington, 1865; enlarged editions, 1866, 1868, and 1880); *Treatise on Military Law* (two vols., 1886; condensed into one volume for a text-book at the Military Academy, under the title of *Abridgment of Military Law*, 1887); and of a translation of the *Military Penal Code of the German Empire* (1873). Of his *Treatise on Military Law*, a late judge-advocate general of the British army testified that it had changed the construction and procedure of English military law. Col. Winthrop was an accomplished linguist, botanist, and contributor to periodicals and scientific reviews. He was a brother of Theodore Winthrop, who was killed in the battle of Big Bethel in June, 1861.

Wolff, Christian D., soldier, born in Bavaria in 1822; died in Clayton, Mo., May 21, 1899. He was the son of one of Napoleon's dragoons. He emigrated to America in 1833 and settled on a farm near the home of Ulysses S. Grant. He fought in the Mexican War, and later became a member of Kit Carson's band of scouts. He organized a company of volunteers in the civil war, was promoted to the colonelcy of his regiment, and in 1864 was promoted brigadier general.

Wood, Edward Parker, naval officer, born in Mansfield, Ohio, Aug. 16, 1848; died in Washington, D. C., Dec. 11, 1899. He was graduated at the Naval Academy in 1867 and assigned to special service on the Minnesota. He was promoted ensign in 1868, master in 1870, and lieutenant in 1871. His service included special work for the Government in Europe and elsewhere. He also served on the Trenton, the Quinnebaug, the Monongahela, and the Concord. He was at the Naval Academy in 1881-'84, and again in 1886-'90. He was promoted to lieutenant commander in September, 1890, served in the Bureau of Navigation from 1893 to 1896, and was commissioned

commander in July, 1897. He was ordered to the Petrel Dec. 16, 1896, and in that command he earned the highest praise of Admiral Dewey and his brother officers. The Petrel is one of the smallest gunboats in the navy, and without protection except a steel deck. Because of her light draught, he saw his opportunity to run close inshore off the entrance to the harbor at Cavité in the battle of Manila Bay. The Spanish ships that remained afloat had sought shelter under the guns of the fort at Cavité, and Dewey's large ships could not reach them. The little Petrel steamed boldly into the harbor entrance, sank the remaining Spanish boats, and then silenced the Spanish forts. The Board of Naval Rewards recommended that "for his eminent and conspicuous conduct in battle" Commander Wood should be advanced ten numbers in his grade; and although this was a higher measure of reward than was bestowed on any other commander, Congress did not withhold it. He was detached from the Asiatic station on Dec. 31, 1898, and, coming home, after a short leave of absence was placed in charge of the 5th Light-house District, with his office in Baltimore.

Woolf, Michael Angelo, artist, born in London, England, in 1837; died in Brooklyn, N. Y., March 4, 1899. He came to the United States when twelve years old, and entered on a theatrical career in Philadelphia, where he ultimately leased the old Chestnut Street Theater. Later he turned his attention to drawing, and developed into a delineator of child life, his favorite subjects being the waifs of the streets. For more than thirty years he contributed to periodicals sketches contrasting the children of the poor with those born to luxury. He also did much as a cartoonist in association with Thomas Nast. His drawings of waif life and contrasts were always pathetic and frequently humorous as well. An appreciative sketch of his work, with illustrations, appeared in the *Saturday Evening Post*, of Philadelphia, Dec. 17, 1898. His last literary work, *Memories of Barn-storming Days*, was published in that periodical in March and April, 1899. A collection of his contributions to the periodical press was published after his death, under the title of *Sketches of Lowly Life in a Great City*.

Worrell, Jennie (Mrs. Jane Wilson), actress, born in Cincinnati, Ohio, in 1850; died in New York city, Aug. 11, 1899. She was the youngest of three sisters who were very well known as singers, dancers, and comedians. They were at first always seen together on the stage, and were billed as "the Worrell Sisters." Their names were Sophie, Irene, and Jennie. They were children of William Worrell, a popular circus clown. Their first engagement was in San Francisco in 1858. From that city they visited Sacramento and the mining towns of the North and of Nevada. For five years they were enthusiastically welcomed, and they repeated the good fortune in Australia. In 1866 they met with a warm welcome at Wood's Museum, New York. Here Jennie afforded great delight by her performance of Nan the Good-for-Nothing. She first married a gambler, from whom she soon obtained a divorce. She then married Alexander Hatfield, with whom she lived very happily, and who left her a small fortune. Her last marriage, with Robert Wilson, was soon ended by a divorce. Her last appearance in public was in 1884.

Wright, Horatio Gouverneur, soldier, born in Clinton, Conn., March 6, 1820; died in Washington, D. C., July 2, 1899. He was graduated at West Point in 1841, standing second in his class, and was commissioned second lieutenant of engi-

neers. For two years he was instructor of French and engineering at the academy, and after other service he became in 1846 superintending engineer of the building of Fort Jefferson at Tortugas, Fla., in which duty he continued until 1856, having also, subsequent to 1852, charge of other engineering works in Florida, notably at St. Augustine and Key West; and he was lighthouse engineer in Florida in 1852-'53. From 1856 to 1861 he was assistant to the Chief of Engineers in Washington, and he received his majority on April 6, 1861. During the civil war he was in field service from the beginning. In April, 1861, he was chief engineer of the expedition sent to destroy the navy yard at Norfolk, Va. From May until July, 1861, he was engaged on the defenses of Washington, after which he was chief engineer of Heintzelman's division in the Manassas campaign, participating in the battle of Bull Run. He was made brigadier general of volunteers on Sept. 14, 1861, and commanded a brigade in the Port Royal expedition, participating in the attack on Port Royal and the capture of Hilton Head in November. From February to June, 1862, he had command of the land forces in the Florida expedition that captured Fernandina, Jacksonville, and St. Augustine, and had a division in the attack on Secessionville, James island, S. C., in June, 1862. He was made major general of volunteers on July 18, 1862, and assigned to the command of the Department of Ohio, which he held until March, 1863, after which for a month he had the division of Louisville, Ky. During that period, which included Bragg's in-

vasion of Kentucky, Gen. Wright displayed administrative talents of high order. In May he received command of the 1st division of the 6th Corps of the Army of the Potomac, and he participated in the Pennsylvania campaign, being present at the passage of the Rappahannock and in the battle of Gettysburg, reaching that field on the afternoon of the first day after a forced march of 35 miles. Subsequent to the great



battle he took part in the skirmish at Fairfield and in the pursuit of Lee's army to Warrenton, Va. He continued with the Army of the Potomac during the Rapidan campaign, and commanded the 6th Corps at the capture of Rappahannock Station, receiving the brevet of lieutenant colonel for gallant and meritorious services in that battle. During the winter months he served as a member of a board to devise modifications of the system of seaboard defenses. He resumed command of his division in April, 1864, and participated in the overland campaign, being present in the battles of the Wilderness and those about Spottsylvania, in the last of which he was wounded, and received the brevet of colonel on May 12, 1864. On the death of Gen. Sedgwick he succeeded to the command of the 6th Corps, and he was present in the battles of North Anna, Totopotomoy, Cold Harbor, and the siege of Petersburg, receiving his appointment of major general of volunteers on March 13, 1864. In July, 1864, when Washington was threatened by Early, who had come down the Shenandoah valley, Wright with his command was sent to the capital by Grant, who wrote to President Lincoln from Petersburg, "I have sent from here a whole

corps commanded by an excellent officer." Early, who had been detained by the sturdy resistance of Lew Wallace at the Monocacy, reached Fort Stevens, about 5 miles northeast of the executive mansion, as the steamers with the 6th Corps arrived at the wharves. Late in the afternoon Wright and his men relieved the hastily gathered volunteers at Fort Stevens, Early's advance was checked, and Washington was saved. On July 12 an engagement took place, at the close of which Early withdrew and was followed by Wright, who overtook and defeated him in a sharp skirmish at Snickers Gap, Va. Grant said: "Boldness is all that is needed to drive the enemy out of Maryland, and Wright is the man to assume that." At Fort Stevens President Lincoln persisted in exposing himself to the Confederate sharpshooters, until he was peremptorily ordered down by Gen. Wright. Lincoln reminded Wright that as President of the United States he was commander in chief of the armies, to which Wright is said to have replied with military brevity and directness that he was in command at that particular spot; that he was responsible for the President's safety, and his orders must be obeyed. Lincoln appreciated the force of Wright's remark and withdrew. The Shenandoah campaign followed, in which Wright commanded the 6th Corps under Sheridan, and was engaged in the fights at Charlestown, Opequan, Fisher's Hill, and Cedar Creek, where he was wounded, and in numerous skirmishes. The battle of Cedar Creek has been immortalized at the expense of Wright by the famous incident of Sheridan's ride. Sheridan, having posted his men in a long drawn out line on the farther bank of Cedar Creek, turned his command over to Wright and went to Washington. A reconnoissance showed that Early could not be found and had fallen back, but with re-enforcements, and after a forced march in the early morning, aided by a fog, he suddenly captured a well-connected picket line of old soldiers without occasioning alarm, and the first warning of his presence was a volley of musketry fired into the main line of unarmed soldiers. This demoralized the veteran troops and gave Early, almost without a struggle, the entire left of the line, with considerable artillery. Seeing that no part of the original line could be held, Wright ordered the 6th Corps to fall back on a tenable position, and while accomplishing this movement by well-timed attacks did much toward checking Early's advance and giving time for the rest of the troops to take position. When that was successfully accomplished Sheridan arrived, and when the advance was made, precisely as Wright had ordered it, the enemy fled in panic. These facts are taken from Wright's report to Sheridan, the original of which has disappeared from the archives of the War Department. Sheridan is quoted as saying: "Read has given me a good send-off in Sheridan's Ride, but as a matter of fact I robbed Wright of the glory that he was clearly entitled to, for when I reached the field he had already gotten his forces well in hand, and but for my appearing when I did he would have had the victory that I got the honor for." (J. F. Saunders, in Washington Evening Star of July 4, 1899.) Wright returned with his corps to the Army of the Potomac and participated in the Richmond campaign. It was Wright's corps that broke through the strongly intrenched line at Petersburg and terminated the siege. In his official report, Gen. Grant wrote: "Gen. Wright penetrated the line with his whole corps, sweeping everything before him and to his left toward Hatcher's Run, cap-

turing many guns and several thousand prisoners." He fought the last battle and won the last victory of the Army of the Potomac at Sailor's Creek, April 6, 1865. After Appomattox, Wright, with his corps, was sent to Sherman's aid in North Carolina, and when Johnston surrendered he returned to Washington. He received the brevet of brigadier general for gallantry at Cold Harbor, and that of major general in the United States army for services at the capture of Petersburg, March 13, 1865, and also the thanks of the Legislature of Connecticut "for his eminent services." From July, 1865, to August, 1866, he commanded the Department of Texas, and he was mustered out of the volunteer service on Sept. 1, 1866. Returning to his corps, in which he had held the rank of lieutenant colonel from Nov. 8, 1863, he was assigned to duty as a member of various boards having to do with engineering works. He was made a colonel on March 4, 1879, and on June 30 brigadier general and chief of engineers, serving also *ex officio* as a member of the Lighthouse Board, which places he held until his retirement, March 6, 1884. He was co-author of a Report on the Fabrication of Iron for Defenses (Washington, 1871). In announcing his death the chief of engineers said: "For nobility of character, for gentleness of disposition, for all the grand attributes of the beau-ideal soldier, Gen. Wright stood pre-eminent." In Arlington, on the slope of the east bank of the Potomac, facing the city that he saved from the enemy, he was buried with military honors.

Yates, John Barentse, soldier, born in Schenectady, N. Y., Oct. 19, 1833; died there, Oct. 20, 1899. He began life in the service of the Utica and Schenectady Railroad as an axeman, later going West to serve as a rodman. On the breaking out of the civil war he enrolled a company of the 1st Michigan Engineers, and was commissioned as captain in 1861, promoted to the rank of major in 1863, and made colonel in 1864. In this command he was the main reliance of Gen. Sherman in his march to the sea, who wrote a letter to the War Department praising him in the highest terms. It was said of his regiment that it built and destroyed more railroads under fire than any similar organization of modern times. After the war he was appointed military superintendent of railroads for Tennessee, a place which he retained throughout the reconstruction period. Returning to his profession and his native city, he was made division engineer on the Erie Canal, and he then built the additional tracks of the New York Central Railroad. He was employed extensively throughout the country down to the time of his death.

Young, Henry A., physician, born in Salt Lake City, Utah, in 1866; died near Manila, Philippine Islands, Feb. 4-8, 1899. He was a nephew of the late Brigham Young; was graduated at the New York College of Physicians and Surgeons in 1893; spent two years as an interne at the Rhode Island Hospital, in Providence; and then settled in Salt Lake City. At the beginning of the war against Spain he enlisted in the Utah Light Artillery, becoming sergeant in Battery A. The Utah Artillery was among the few batteries of the State militia fully equipped with modern breech-loading 3.2-inch steel rifles at the beginning of the war, and was among the first organizations sent to Manila. In the attack on the American lines by the Filipino insurgents on the night of Feb. 4, and in the fighting that was continued till the 9th the Utah Artillery became conspicuous by its position and remarkable execution, and was highly commended by Gen. Otis

in his official dispatches. After the defeat of the insurgents and the cessation of fighting Dr. Young could not be found. His comrades instituted a search, and his remains were found, horribly mutilated, at a spot within the lines occupied by the insurgents while the fighting was at its height.

Young, John Russell, journalist, born in Downingtown, Pa., Nov. 20, 1841; died in Washington, D. C., Jan. 17, 1899. He was educated in the public schools of Philadelphia and New Orleans. In 1857 he became a copyholder on the Philadelphia Press, on which he was rapidly promoted to reporter, news editor, Washington correspondent, and at the outbreak of the civil war war correspondent with the Army of the Potomac. He remained with that army from the battle of Bull Run till the end of the Chickahominy campaign, when illness compelled him to return to Philadelphia, where he took the managing editorship of the Press. In 1864 he went as correspondent with the Red River expedition under Gen. Banks, and at the close of that campaign he resumed editorial control of the Press. In September, 1865, he joined the editorial staff of the New York Tribune, and in May, 1866, became managing editor. While holding this place he established the Morning Post in Philadelphia. Mr. Young retired from the Tribune in 1869, and the same year established the Standard in New York. In 1871 he went to Europe as a correspondent of the New York Herald, and traveled in each of its countries excepting Russia till 1877, when he was selected by the Herald to accompany ex-President Grant on his journey around the world. In 1879 he resumed editorial work on the Herald till 1882, when he was appointed minister to China. In 1885 he resigned his post and returned home. His last public office was that of librarian of Congress, to which he was appointed June 30, 1897. He was author of *Around the World with Gen. Grant* (2 vols., New York, 1879) and editor of a *Memorial History of the City of Philadelphia*, from its First Settlement to the Year 1895 (vol. i), and *Narrative and Critical History, 1681-1895* (New York, 1895).

OBITUARIES, FOREIGN. **Abdy, John Thomas**, English jurist, born in Madras, India, July 5, 1822; died in September, 1899. He was educated at Cambridge, and was admitted to the bar. From 1854 to 1873 he was Professor of Civil Law at Cambridge. He became recorder of Bedfordshire in 1870, and was raised to the county court bench in 1871. He was the author of a valuable *Historical Sketch of Civil Procedure among the Romans* (Cambridge, 1857), and of an edition of *Kent's Commentaries on International Law* (London, 1866). With Bryan Walker he translated and annotated the *Commentaries of Gaius and the Institutes of Justinian* (1876).

Achenbach, Heinrich von, German statesman, born in 1830; died in Potsdam, July 10, 1899. He was a Professor of Law in the University of Bonn when first elected to the Prussian Chamber in 1866. In 1872 he was appointed undersecretary in the Ministry of Education, and in 1878 became Prussian Minister of Commerce, having in his former post contributed much to the preparation of the Kulturkampf legislation. He took a prominent part in the purchase of the Prussian railroads by the State and in the extension of the railroad system. In 1879 he was appointed president of the province of Brandenburg, and under his instruction the present Emperor learned in 1882 the details of local administration.

Ahamuda, Marquis de, Spanish soldier, died in Saragossa in October, 1899. He fought with

distinction as a young officer in Morocco, and in consequence became aid-de-camp to Marshal Serrano, and one of his most devoted political friends. He was Captain General of Aragon when he was sent to Cuba, toward the close of the last insurrection, as second in command to Gen. Weyler. After his return to Spain he received his former appointment again. As a politician he was deputy for Ubeda in the early days of the Restoration.

Alfred, Prince of Saxe-Coburg-Gotha, born in Buckingham Palace, London, Oct. 15, 1874; died in Meran, Feb. 6, 1899. He was the only son of the Duke of Edinburgh, second son of Prince Albert of Saxe-Coburg and Queen Victoria of England, who succeeded to the throne of Saxe-Coburg on the death of his uncle, Ernst II.

Allen, Charles Grant Blairfandie (commonly called Grant Allen), English author, born in Kingston, Canada, Feb. 24, 1848; died in London, England, Oct. 25, 1899. He was educated at King Edward's School, Birmingham, and at Oxford, where he was graduated in 1871. For a few years after his graduation he was Professor of Logic and Philosophy at Queen's College, Spanish Town, Jamaica, but during the greater part of his career he resided in England. He was a prolific writer. He was widely known as a scientist in several departments, his aim being to popularize science, and his brilliant style contributed much to his success in this respect. As a novelist, too, he achieved a very considerable measure of popularity, but the greater part of his work in fiction, although entertaining, is ephemeral. A not wholly complete list of his fictions, the earliest of which appeared under the pseudonym Cecil Power includes *Philistia* (1884); *Babylon* (1885); *For Maimie's Sake* (1886); *In All Shades* (1886); *The Beckoning Hand*, and *Other Stories* (1887); *A Terrible Inheritance* (1887); *The Devil's Die* (1888); *This Mortal Coil* (1888); *White Man's Foot* (1888); *The Tents of Shem* (1889); *Dr. Palliser's Patient*; *Dumarescu's Daughter*; *The Great Taboo* (1890); *The Duchess of Powysland* (1891); *Blood Royal* (1892); *The Scallawag* (1893); *Michael's Crag* (1893); *The Woman Who Did* (1895); *The British Barbarians* (1895); *Miss Cayley's Adventures* (1899). The larger number of his other works comprises *Physiological Aesthetics* (London, 1877); *The Color Sense* (1879); *Vignettes from Nature* (1881); *The Evolutionist at Large* (1881); *Anglo-Saxon Britain* (1881); *Colin Clout's Calendar: A Record of a Summer* (1882); *The Color of Flowers* (1882); *Flowers and their Pedigrees* (1883); *Biographies of Workingmen* (1884); *Strange Stories* (1884); *Charles Darwin* (1885); *Common Sense Science* (Boston, 1887); *Force and Energy: A Theory of Dynamics* (1888); *Falling in Love*, with *Other Essays* (1889); *Science in Arcady* (1892); *The Attis of Catullus*, in English verse (1892); *The Lowest Slopes*, a collection of verses (1894); *Postprandial Philosophy* (New York, 1894); *The Story of the Plants* (1896); *The Evolution of the Idea of God* (1897); *Historical Guides of Paris, Florence, Belgium, and Venice* (1897); *Flashlights on Nature* (1898); *The European Tour* (New York, 1899). Since Mr. Allen's death it has been ascertained that he was the author of two novels not before attributed to him—*The Typewriter Girl* and *Rosalba*—which appeared under the pseudonym Olive Pratt Rayner. In the opinion of some critics the latter was his most effective work in fiction. He was an outspoken agnostic.

Annenkoff, Michael Nikolaivich, Russian soldier, born in 1835; died in St. Petersburg, Jan.

22, 1899. He was educated in the corps of pages, became senior adjutant of the general staff at St. Petersburg, was sent to Poland during the revolution of 1863, and there gained a reputation for ability and energy as assistant to the superintendent of police. He made a study of military railroads, and in consequence of his writings and reports on the subject was made chief director of military transport by railroads and by boats in 1867. In 1877, having risen to the grade of a general, he directed the movements of the rear guard or reserve troops of the Army of the Danube. In 1880, while attached to the Akkal Tekke expedition of Gen. Skobelev, he began the construction of the Transcaspien Railroad line, which in subsequent years he carried through the desert to Samarcand. After completing this great work he lived in St. Petersburg, where he was a member of the military council.

Apponyi, Count George, Hungarian statesman, born in 1808; died March, 1899. He was the sole leader of the Conservative party in the Hungarian Diet from 1840 to 1860. Later he was Chancellor of the Royal Cabinet, but since 1870 he has lived in retirement at Eberhardt.

Armstrong, Sir Alexander, British naval officer, born in Ireland about 1818; died in Sutton-Bonnington near Loughborough, England, July 4, 1899. He was educated at Trinity College, Dublin, and at the University of Edinburgh, and entered the medical department of the royal navy in 1842. He served in nearly all parts of the world, including five years continuously in the arctic regions in the search for Sir John Franklin. He held many important posts, among them that of director general of the medical department of the navy, 1869-'80. He was created K. C. B. in 1871, and received the Arctic, Baltic, and Jubilee medals. He was the author of *A Personal Narrative of the Discovery of the Northwest Passage* (London, 1857) and *Observations on Naval Hygiene*, particularly in Connection with Polar Service (1858).

Bamberger, Ludwig, German politician, born in Mainz, June 22, 1823; died in Berlin in March, 1899. He studied law, took part in 1849 in the revolutionary uprising in the Palatinate, and after this was repressed by Prussian troops he took refuge in Switzerland, and being condemned to death by a Bavarian tribunal settled in Paris, where he established a banking business, which he carried on with success until his return to Mainz in 1866. In the same year he was elected a deputy to the parliament of the Zollverein. He represented the same constituency in the Reichstag. He was a free trader of strong convictions and an advanced Liberal, and became one of the keenest and most vigorous debaters in the Reichstag, and in the course of time found himself at the head of the Opposition. In his contests with Bismarck he displayed remarkable strength of character and civic courage. When the National Liberal party divided finally on the question of Prince Bismarck's protectionist policy he went over to the Progressists, the party of Eugen Richter, but soon after this he retired from public life. He published books on *Liberty of the Press*, *Results of the Insurrection in the Palatinate*, *Monsieur de Bismarck*, *Natural History of the French War*, *The Right of Assembly*, *Germany and Socialism*, and *Journalism and Judaism*. He was a journalist and pamphleteer who employed irony and ridicule with more biting effect than any political writer since Heine. His skill as a writer and his knowledge of French affairs led to his being summoned to Versailles in 1871 to defend the cause of German union and

advise Prince Bismarck in his negotiations with Thiers.

Bates, Harry, English sculptor, born in Stevenage in 1850; died in London, Jan. 30, 1899. He practiced architectural decoration for many years before he studied art. He won a traveling scholarship in 1883 with a relief of Socrates Teaching, and went to Paris and studied under Rodin. His panels representing scenes from the Odyssey attracted attention at the Royal Academy as revealing a new talent. He exhibited *Aeneas* in 1885, *Homer* in 1886, and *Rhodope* and panels of *Psyche* in 1887. His works in relief with their highly decorative effect were most admired. In 1892 he showed a bronze group expressive of force and action, representing hounds held in leash by a hunter, which secured his election as associate member of the Royal Academy. His *Pandora*, exhibited at the same time, is in the Tate Gallery. He made a large equestrian statue of Lord Roberts, with a pedestal crowded with elaborate designs, which has been set up in Calcutta, and near it a companion statue of Lord Lansdowne. His masterpiece is considered to be his allegorical representation of Love and Life, a female figure in ivory being crowned by a winged male figure in bronze, with the terrestrial sphere for a pedestal.

Baumann, Oskar, an Austrian explorer, born in Vienna, June 25, 1864; died there, Oct. 12, 1899. He came from a family of geographers, and studied history and geography in the university and practiced in the map department of the Institute of Military Geography. In 1883 he undertook explorations in Montenegro, and in 1885 he went to Africa with the Austrian Congo expedition. He examined the lower Congo with Chavanne, and worked up the river alone. In 1888 he went to German East Africa with Hans Meyer to map the country, and was taken captive by the Arab rebels in Usambara, the exploration of which he resumed in 1890 for the German East Africa Company. He journeyed to Kilimanjaro, and made preliminary surveys for the railroad from Tanga to Korogwe. In 1892 he led an expedition, sent out by the German Antislavery Society, from Tanga through the Masai country to Victoria Nyanza. He was appointed Austrian consul in Zanzibar, but was recalled because he wrote a satirical account of German officialism in East Africa for a Vienna newspaper. His notes and sketch maps furnished data for all subsequent investigations in East Africa. He published books of travel and contributed many articles to geographical magazines.

Becque, Henri, French dramatist, born in Paris, April 9, 1837; died there in May, 1899. His first work was the libretto of an opera, *Sardanapale*, the subject taken from Byron, which was set to music by Victorin Joncières, and performed without much success at the Théâtre Lyrique in 1867. In 1868 his comedy *L'Enfant Prodigue* was given at the Vaudeville, and in 1870, at the Porte St. Martin, *Michael Pauper*, a drama of socialistic tendencies. In 1878 *La Navette* was produced at the Gymnase, inaugurating the pessimistic drama in France. He changed to another vein in *Honnêtes Femmes* in 1880, but in 1882 produced at the Théâtre Français *Les Corbeaux*, a satirical comedy of contemporaneous French manners, which for a long time no manager would present on account of its cynical gloom, although it contains scenes of great power and incontestable beauty. When it was finally acted at the Comédie Française it was received with mingled hisses and applause. *Navette* was a one-act drama. In 1885 *La Parisienne*

was played at the Renaissance. This provoked much discussion at first, and was finally accepted as one of the masterpieces of the modern drama. After that Henri Becque gave his time to criticism and polemics, lectures and congresses. He published a volume called *Querelles Littéraires*. Although his plays did not become popular, the young school of French dramatists have drawn their inspiration from *Les Corbeaux* and *La Parisienne*.

Blaikie, William Garden, Scottish clergyman, born in Aberdeen, Feb. 5, 1820; died in North Berwick, June 11, 1899. He was educated at the university in his native city, and was ordained in the Church of Scotland in 1842 as pastor of Drumblade. In 1843 he united with the Free Church of Scotland, and in 1868 became Professor of Apologetics and Pastoral Theology at New College, Edinburgh. He was one of the best-known clergymen of his denomination, and from 1888 to 1892 acted as president of the Pan-Presbyterian Alliance. He also belonged to many ecclesiastical associations, and edited several periodicals. His published books include *Six Lectures to the Working Classes* (1849); *David, King of Israel* (1856); *Bible History* (1860); *Outlines of Bible Geography* (1861); *Better Days for Working People*, a widely popular work (1863); *Heads and Hands in the World of Labor* (1865); *The Head of the House* (1866); *Counsel and Cheer for the Battle of Life* (1867); *Memorials of Andrew Crichton* (1868); *Life and the True Light* (1869); *For the Work of the Ministry* (1873); *Glimpses of the Inner Life of Our Lord* (1876); *The Personal Life of David Livingstone* (1880); *Christianity and Secularism Compared in their Influence and Effects* (1882); *Public Ministry and Pastoral Methods of Our Lord* (1883); *My Body* (1883); *The Witness of Palestine to the Bible* (1883); *Leaders in Modern Philanthropy* (1884); *The Preachers of Scotland* (1888); *The First and Second Books of Samuel* (Expositor's Bible, 1888); *The Family* (1889); *After Fifty Years* (1893); *The Book of Joshua* (Expositor's Bible, 1893); *Heroes of Israel* (1894); *Non-Christian Philosophies of the Age* (1894); *Summer Suns in the Far West* (1895).

Blanco, Antonio Guzman, ex-President of Venezuela, born in 1829; died in Paris, France, July 29, 1899. He was the son of a distinguished statesman, and became an ardent and active Liberal politician at an early age. He was elected Vice-President in 1865, and in the civil war of 1866 he took the field under Gen. Falcon and helped greatly to the triumph of the federalist cause. While Falcon was away in 1870 rebellion again broke loose, and revolution and anarchy were in sight when Blanco by a bold stroke seized the capital and placed himself at the head of a provisional government. His dictatorship was legally regularized by his election to the presidency in 1873. He ruled despotically and by unscrupulous methods, yet he aimed to advance his country in civilization, and helped much to improve its material development, its public credit, and its ways of communication. In 1874 he dissolved all the monasteries in Venezuela. After introducing a new code of laws, he resigned the presidency in 1877. His successor, Alcantara, was unpopular, and the admirers of Blanco overthrew him and proclaimed Blanco President again. Blanco returned from Paris and assumed the presidency, which he carried on successfully till 1884. He then retired, but in September, 1886, he resumed the office, which he laid down finally in August, 1887. His life was thenceforth spent in Paris in the enjoyment of his wealth.

Blomfield, Sir Arthur William, English architect, born in the palace of the Bishop of London, Fulham, March 6, 1829; died in London, Oct. 30, 1899. He was the fourth son of Bishop Blomfield, and was educated at Rugby and Cambridge. He was for some time a pupil of Philip Hardwick, the noted architect. In 1888 he was elected an associate of the Royal Academy, and in 1889 was knighted. He was a fellow of the Institute of Architects, and vice-president of the Institute. 1886-'87, while in 1891 he received the gold medal of the Royal Institute of British Architects. At the time of his death he was almost the latest prominent figure among the architects of the Gothic revival, having within a few months succeeded Pearson, perhaps the chief of them all, as architect to the chapters of Lincoln and Chichester. He was not a great architect, but his work was always refined and scholarly. His designs were frankly imitative of the best mediæval examples, but the character of his work was always intelligent, and exhibited great excellence in execution. He paid much attention to lighting, heating, and acoustics; did not disdain galleries in his churches, and even defended the use of iron pillars between nave and aisles. His fame will principally depend upon his design of the nave of St. Saviour's Church, Southwark. The number of his works is very great, but in the latest of these his two sons were associated with him. Ecclesiastical architecture was his specialty. He restored a large number of mediæval buildings, ecclesiastical and secular, usually in a conservative fashion. Some few of the many important erections with which he was concerned are St. Mary's Church, Portsea; St. Alban's English Church at Copenhagen; St. Katherine's Training College; the cathedral at Georgetown, Demerara; Selwyn College, Cambridge; Sion College, Victoria Embankment, a very successful achievement in secular Gothic. Next to the nave of St. Saviour's, St. Mary's, Portsea, appears to have been regarded as his best work.

Bonheur, Rosalie (commonly called Rosa), French painter, born in Bordeaux, March 22, 1822; died in Paris, May 25, 1899. She was the daughter of a painter, and devoted herself to art in early youth. Before long she was a rival of Bascassat and Landseer as an animal painter. She was addicted to compositions of large dimensions. The principal galleries of modern paintings in Europe and America have examples of her art. She practiced sculpture also. In foreign countries her reputation was as great as in France. She directed for many years the free school of design for girls. Her pictures include *Horses in a Meadow*, *The Three Musketeers*, *A Dove on the Road*, *Bucks in Repose*, *Deer Crossing an Open Space*, *Plowing with Oxen*, which is in the Luxembourg, and by some is considered her masterpiece), and *The Horse Fair*. The last named was the work of a year and a half, was exhibited in 1853, and is now in the Metropolitan Museum, New York. The National Gallery, London, has a replica. Miss Bonheur received several medals and other prizes and the cross of the Legion of Honor. Larnelle wrote a sketch of her life, with an essay on her work (1885).

Borlase, William Copeland, an English archæologist, born in Cornwall in 1848; died in London, March 31, 1899. He was educated at Winchester and Oxford, and was called to the bar in 1882. From 1880 he sat in Parliament. He was president of the Royal Institute of Cornwall, and attained prominence as an archæolo-

gist. His published books include *Nænia Cornubiæ: A Descriptive Essay* (London, 1872); *Nippon and its Antiquities* (Plymouth, 1876); *Sun Ways: A Record of Travel* (Plymouth, 1878); *The Age of the Saints: A Monograph of Early Christianity in Cornwall* (Truro, 1878).

Bowen, Sir George Ferguson, a British administrator, born in County Donegal, Ireland, in 1821; died in Brighton, Feb. 21, 1899. He was educated at Oxford, gaining a scholarship in 1840, and became a member of Lincoln's Inn, but was not called to the bar. In 1847 he was made president of the university established in Corfu, then under British administration. Becoming Secretary of the Government of Corfu, through his familiarity with Italian and modern Greek and his knowledge of Eastern affairs, he was of assistance to Mr. Gladstone when the latter was sent out in 1858 as High Commissioner to inquire into the constitution of the Ionian Islands. In 1859 Sir George Bowen was appointed Governor of Queensland, when it was erected into a separate colony. In 1867 he was transferred to New Zealand, and in 1873 became Governor of Victoria, and from 1879 till 1883 was Governor of Mauritius. His last appointment was Hong-Kong. He was the author of *Ithaca in 1850* (London, 1851); *Mount Athos, Thessaly, and Epirus* (1852); *A Handbook for Travelers in Greece* (1854); and *Thirty Years of Colonial Government* (1899).

Bowerling, Adelaide (Mrs. J. B. Steele), English actress, born in Sunderland in 1838; died in Wandsworth, England, May 26, 1899. She made her first appearance at Sunderland in 1854. She was leading lady of the Brighton Theater when Miss Braddon, the novelist, played as a member of that company under the name of Mary Seaton. She was in the original production of *The Hidden Hand* at the Olympic Theater, London, and was soon afterward engaged to go to Australia by George Copping, who at that time was managing theaters in Sydney and Melbourne. She became at once a great favorite as a leading lady and star in that country, and remained there at the head of her calling for more than seventeen years. She returned to London ten years before her death, and after one or two engagements retired permanently.

Boyd, Andrew Kennedy Hutchison, a Scottish clergyman, born in Auchinlech, Scotland, Nov. 3, 1825; died in Bournemouth, England, March 1, 1899. He was educated at King's College, London, and at the Glasgow University, and was ordained in the Church of Scotland in 1851. He was successively minister of the parishes of Newton-on-Ayr, Kirkpatrick-Irongray in Dumfriesshire, and St. Bernard's in Edinburgh. In 1865 he became minister of a parish at St. Andrew's, and in that city the remainder of his life was spent. In 1890 he was moderator of the General Assembly, the highest office in the Church of Scotland. As the "Country Parson" he won considerable reputation in the sixties by his volumes of contemplative essays, written in a light, entertaining style. Concerning *Veal and Concerning the Advantages of being a Cantankerous Fool* were among the most noted of these. But the public taste presently wearied of these pleasant but by no means profound papers, and for many years their author was almost forgotten outside of a small circle till in later life he published several volumes of readable reminiscences, which somewhat revived his fame. His work seldom gave evidence of original thought, but he was always pleasantly persuasive, and until his mannerisms palled upon the general taste was thoroughly readable. His writings comprise *The*

Recreations of a Country Parson (1859); Leisure Hours in Town (1861); Recreations of a Country Parson, second series (1861); Graver Thoughts of a Country Parson (1862-'64-'75); The Commonplace Philosopher in Town and Country (1862); People of Whom More Might Have Been Made (1863); Counsel and Comfort from a City Pulpit (1863); The Autumn Holidays of a Country Parson (1864); Critical Essays of a Country Parson (1865); Sunday Afternoons at the Parish Church of a University City (1866); Lessons of Middle Age (1867); Changed Aspects of Unchanged Truths (1869); Present Day Thoughts (1870); Seaside Musings (1872); A Scotch Communion Sunday (1873); Landscapes, Churches, and Moralities (1874); Recreations of a Country Parson, third series (1878); From a Quiet Place (1879); Our Little Life (1882); Toward the Sunset (1882); What Set Him Right (1885); Our Homely Comedy and Tragedy (1887); The Best Last, and Other Papers (1888); Twenty-five Years of St. Andrew's (1892); St. Andrew's and Elsewhere (1894); and The Last Years of St. Andrew's (1896).

Brand, Deane, English singer, born in Liverpool in 1860; died in London, Aug. 11, 1899. He was a boy on the naval training ship Conway, stationed in Australia, when he attracted the attention of a theatrical manager by his singing, and was offered a profitable place in an operatic company. He accepted the offer, and after a successful tour he went to London and spent a season of study at the Royal Academy of Music. He was then for four years the leading tenor of D'Oyly Carte's Company, making his *début* in Captain Corcoran in Pinafore. He then made a tour in Australia with his wife, Miss Kate Chard, in *Les Manteaux Noirs*, *Boccaccio*, and other comic operas. In 1886 Mr. Brand and his wife headed a company of their own in England with the popular comic opera *Rhoda* for a long tour. Since then they have made tours in northern Europe and in South Africa. They also came to the United States, and sang in New York and other cities in *Cinderella*.

Bree, Herbert, English prelate, born in Keswick in January, 1828; died in Hove, Sussex, March 26, 1899. He was educated at Cambridge, and after serving as curate at Drinkstone and Wolverstone, in Suffolk, he was rector of Harkstead, in Suffolk, 1858-'65; curate of Long Melford, in the same shire, 1865-'70; and rector of Brampton, in Huntingdonshire, for the twelve years following. In May, 1882, he was consecrated Bishop of Barbadoes.

Büchner, Ludwig, German author, born in Darmstadt, March 29, 1824; died there, April 30, 1899. He studied under Virchow, and established himself as a physician in his native town, but was called to Tübingen as professor and associate physician in the clinic. There he published in 1855 his *Force and Matter*, the bold materialism of which made a tremendous stir. It was translated into all the languages of Europe, but it cost him his professorship. Returning to Darmstadt, Büchner developed his ideas in other works, the most important of which are *Nature and Science*, *Man according to Science*, and *The Psychological Life of Animals*.

Bunce, John Thackray, English author, born in Faringdon, April 11, 1828; died in Birmingham, June 25, 1899. Almost his entire career was spent in Birmingham, where he began active life as a printer's apprentice. He presently became a reporter, and at a later period was editor of *Aris's Birmingham Gazette*, resigning this post in 1861. From 1862 to 1898 he edited the *Bir-*

mingham Daily Post, and in these years exerted a very appreciable influence in municipal and educational enterprises as well as in the wider sphere of journalism. He was the author of *Cloudland and Shadowland* (London, 1868); *History of Old St. Martin's* (Birmingham, 1875); *Fairy Tales: Their Origin and Meaning* (London, 1878); *Josiah Mason: A Biography* (1882); and *Books on Biography* (London, 1886).

Bunsen, Robert Wilhelm Eberhard, German chemist, born in 1810; died in Berlin, Aug. 16, 1899. He was the son of a distinguished theologian, a professor at Göttingen, at which university he was graduated as doctor of philosophy in 1831, after which he continued his studies in Paris, Berlin, and Vienna, and in 1836 became Professor of Chemistry in the Polytechnicum at Cassel, whence he went to Marburg. In 1852 he was called to the chair of Experimental Chemistry at Heidelberg, where he remained until his retirement in 1889. He invented a voltaic battery that came into general use as a cheaper and more effective instrument for generating electricity than the Grove battery. The Bunsen gas burner, still used in houses, laboratories, and factories all over the world, was elaborated in its perfect form only after a long series of delicate experiments which no one before him had undertaken because it was not believed that a nonexplosive mixture of coal gas and air could be made to burn from a simple tube burner. With Lord Playfair he investigated the gases generated in blast furnaces; with Sir Henry Roscoe he investigated actinometry and the chemical action of sunlight. He visited Iceland in 1847 to study the geysers. In conjunction with Kirchhoff he discovered spectrum analysis, the master key to modern chemistry and the mysteries of the constitution of matter so far as they have yet been solved, by which many new elements have been discovered and the presence of others detected where they were not suspected, by which the composition of the sun and the stars has been found out and their rates of motion obtained. Not less important to chemical science were the methods that Bunsen invented for analyzing, separating, and measuring gases with mathematical accuracy. His researches in physical chemistry, in the measurement of actinic action, in the determination of specific heat by a new method, in determining the composition of volcanic rocks, and his numerous chemical discoveries have enriched science with a wealth of new knowledge. As a teacher and trainer of other investigators and experimentalists and the originator of exact and thorough methods of observation and manipulation he diffused a fruitful influence.

Busch, Moritz, German author, born in Dresden, Feb. 13, 1821; died in Leipzig, Nov. 16, 1899. He studied theology at his father's desire, but against his own inclination, and obtained his doctor's degree in 1846; then devoted himself to literary work, contributing to periodicals, editing a story paper, and translating the novels of Dickens and Thackeray. He was a republican in 1848, and when reaction triumphed in 1851 he emigrated to the United States, but became disgusted with the plutocratic tendencies that he thought he observed there, gave up his pastorate in St. Louis, and returned to Germany after a year, publishing his observations on American political and social life in a book entitled *Wanderings between the Hudson and the Mississippi*. He threw himself into the agitation for German unity under Prussian headship, worked for this cause in the Elbe duchies, and published the

information derived from his tour in the Schleswig-Holstein Letters. In 1857 and subsequent years he traveled through Egypt, Nubia, Syria, Palestine, Asia Minor, Greece, Turkey, Roumania, and Hungary in order to gather materials for guidebooks that he was commissioned to prepare. His *Pilgrimage to Jerusalem* was published after his return in 1859. In that year he assumed the editorship of the *Grenzboten*. When the Prussian troops entered Schleswig-Holstein in 1864 Dr. Busch became the literary advocate of the pretensions of the Duke of Augustenberg and conducted a newspaper at Kiel, but he resigned his employment with its emoluments in 1865 because the duke would not make the necessary sacrifices for German unity, and resumed the editorship of the *Grenzboten*. He resigned his editorship in 1868 and entered the employ of the Government in 1870, receiving an appointment in the Foreign Office in which his task was to disseminate in the press the views of the Government, under personal instructions from Count Bismarck. He acquired the complete confidence of the Chancellor, whom he accompanied in the French campaign. Dr. Busch retained his post in the Foreign Office till 1873, then resigned and edited the *Hannoverscher Kurier* till 1878, then returned to Berlin and renewed his intimacy with Prince Bismarck and wrote in advocacy of his views in the *Grenzboten* and other publications. In 1890 he removed to Leipsic. He was the author of translations from American humorists and of numerous books apart from those on which his reputation rests, the vivid and candid memoirs of the great Chancellor, whose faults of character were as precious and admirable in his eyes as those of Dr. Johnson to Boswell, and whose wiles and artifices he laid bare in the spirit of a truthful biographer and in the belief that they were necessary means for carrying out a great policy. His eulogistic memoir entitled *Unser Reichskanzler* became very popular in Germany. When he published the *Diary* in 1878 Prince Bismarck revised the proof sheets, but the revelations of the secret history of the French war gave rise to considerable comment. Count Bismarck and his People during the War with France seemed, too, a very unreverential, though masterful, portrayal of the actors in that eventful period. Bismarck: Some Secret Passages from his History, was printed in English after the death of the Iron Chancellor, and was fiercely assailed by the German press and denounced by the whole Bismarckian following.

Caprivi, Georg Leo de Montecuculi, Graf von, German statesman, born in Charlottenburg, Feb. 24, 1831; died in Berlin, Feb. 6, 1899. He was descended from an Italian family which had been settled in Germany for several generations, his father being a counselor in the superior court of Berlin, his mother a daughter of the intellectual family of Köpke. After leaving the gymnasium he received, in 1850, a commission as lieutenant in the Grenadier Guards. Rising rapidly, he was a captain attached to the general staff in 1861, served on the staff of the first army in Bohemia in 1866 with the rank of major, and in 1870 was a lieutenant colonel and chief of the staff of the 10th Corps. His reconnoissance in the Moselle valley enabled his corps to take part in the battle of Mars-la-Tour. Later he took part in the battles of the army of Prince Friedrich Karl around Orleans and on the Loire. After the war he rose through the various grades until he became a lieutenant general in 1882 and was placed in command at Metz. In 1883 he was called into the Cabinet as Secretary of State for

the Navy, and the rank of vice-admiral was bestowed upon him. Although many of the higher naval officers showed dissatisfaction at seeing a general of infantry placed at their head, his temporary accession to the navy was marked by great activity and progress. In 1888, in consequence of a difference of views between him and Wilhelm II, he retired from the office, and was assigned to the command of the 10th Army Corps at Hanover. In the autumn he conducted the manœuvres of his corps before the young Emperor, who was much impressed with his generalship and with his extensive knowledge of military affairs. Hence it came about that on the fall of Bismarck Caprivi was suddenly and unexpectedly elevated into the difficult post of Chancellor of the German Empire. Although he was by nature and education a Prussian Conservative, under his administration the rigorous internal policy of Prince Bismarck was sensibly relaxed. The minor state of siege was revoked at Berlin, the exceptional laws against the Socialists were not renewed, proceedings for offenses against the Chancellor were abandoned, the use of the national language in the schools and churches of Poland was restored, and even in Alsace-Lorraine the troublesome passport regulations were suspended at the end of 1891. Count Caprivi, who received his title of nobility in 1891, contended against the protectionist tariff of France, and succeeded in raising a barrier against French goods in Italy and Austria, as well as in Germany, but by his commercial treaties he estranged the powerful agricultural interests of Prussia. In 1892 he carried through the Reichstag the army bill reducing the term of service to two years and increasing the army. The Chancellor accompanied the Emperor on his travels and conducted various negotiations, and held conferences relative to the triple alliance. One of the last acts of his administration was to secure the vote of the Reichstag for the military septennate in 1893. His fall was the work of the reactionary parties, who found him too liberal. He first resigned the Prussian minister-presidency on account of the defeat of compulsory religious education by the Prussian Diet, and on Oct. 16, 1894, retired from the Chancellorship.

Castelar, Emilio, Spanish statesman, born in Cadiz in 1832; died in Murcia, May 25, 1899. His father died while he was very young, and he was brought up by his mother in the village of Elda, in Murcia, received a little schooling at Alicante, and went to the University of Madrid in 1848, supporting himself by writing for the newspapers. He also published a novel, and won honors in his studies sufficient to gain a place on the teaching staff. In the revolutionary disturbances of 1854 he exhibited his oratorical talents. He was appointed Professor of History and Philosophy in the university, and delivered a brilliant course of lectures on the civilization of the first five centuries of the Christian era. Having become a republican of the school of Victor Hugo, he attacked the Government and the monarchy for the financial expedients resorted to after the dissolution of the Liberal union of O'Donnell, and when Narvaez removed him from his professorship in 1865 the students started a series of riots that led to the fall of the Ministry. He was compelled to flee abroad after the suppression of the rising of 1866, and while in exile he wrote for American papers. As a champion of republicanism he was received with enthusiasm in Italy, but he resided most of the time in Belgium. After Prim and Sagasta, landing in the south of Spain, had overthrown the Government and driven Queen Isabel

into exile, Castelar returned and, as a member of the constituent assembly that framed the new Constitution, argued that a republic was the only logical alternative to the historical monarchy. Marshal Prim would have a liberal monarchy under a foreign dynasty, and when the Duke of Genoa refused the throne approached the Catholic Hohenzollern prince, giving occasion for the Franco-Prussian War. After the Duke of Aosta had accepted and was enthroned as King Amadeo, Castelar sat in the Cortes. When Don Amadeo, resenting the insults and indignities to which he had been subjected, abdicated in 1873, the republican party was enabled to try its remedy for the disease in the body politic. The federal republic, with self-governing provinces, modeled after the United States, was the type preferred, with no more capital punishment nor forced service in the army. In pursuit of their ideal the republicans had thrown away their weapons for self-defense, attempting to establish an untried system through the good will of its enemies and the intelligence of the unthinking mob. The result was anarchy, and in September, 1873, the Cortes placed Don Emilio Castelar at the head of the Executive Government, with dictatorial powers, and adjourned till January, 1874. Castelar threw overboard his theories in order to reestablish order and save Spain from destruction. He re-enacted conscription in a severe form, in order to satisfy the generals and restore discipline in the army; he came to an agreement with the Vatican, and thus checked the Carlist revolution in the north; he applied capital punishment to the Cantanolist anarchists who were desolating the south. When the Cortes met in January a vote of censure was immediately passed upon the President, who had been so recreant to the principles of the federal republic, and immediately afterward Gen. Manuel Pavia turned the Cortes into the streets. He did not take the President into his confidence, because Castelar, he said, was one of the few men in Spain who had no understanding of the reality of the situation; but he acted with the concurrence of all the chiefs of the reorganized army, who were resolved that there should be no renewal of the anarchy that threatened the existence of Spain during the early part of 1873. Giving way to the provisional government of Marshal Serrano that was set up by the chiefs of the army, Castelar returned to his duties as professor in the university. After the restoration of the monarchy by Martinez Campos, in December, 1874, he went into exile once more, probably to cut himself off from the violent republicans who wished to carry out their idea by means of revolution. These acted under Ruiz Zorilla, while Castelar, when he came back, founded the party of Possibilist Republicans, prepared to league themselves temporarily with any party that would work for Liberal reforms. Castelar would not take office under the monarchy nor disown his republican principles, but he co-operated effectually with Sagasta in his efforts for the revision of the Constitution that had been drawn up in accordance with Conservative doctrines by Canovas, and when the Constitution was finally modified under the Queen Regent by the restoration of the right of universal suffrage he renounced his opposition to the monarchy. Castelar's *Life of Byron* was translated into English, and some others of his writings, of which there is a considerable list, have been rendered into foreign languages. His chief title to fame is his eloquence. He was the greatest orator in a nation of orators, and one of the most famous of modern times.

Cautley, Laurence (Laurence Aubrey Desborough), English actor, born in Streatham in 1862; died in London, Oct. 15, 1899. He was educated for the English bar, but joined the traveling company of Miss Marie Litton in 1879 and played with them in standard drama for a time sufficient to approve his worth in heroic characters. When *The Red Lamp* was produced by Mr. Beerbohm Tree in London, April 20, 1887, Mr. Cautley played Prince Alexas. At a matinee given at the Vaudeville, May 17 of the same year, he played Corréze in *Moths*, and confirmed himself as a favorite in London. On June 28 following he played *Savigny* in *Marion de Lorme*. He was the Charles Derwentwater in *Partners*, produced Jan. 5, 1888, and Sir Philip Sydney in *Love that Kills* on Feb. 9. March 7, 1888, he began an engagement with Mr. Toole at the latter's theater as Horace Milliken in Mr. and Mrs. Herman Merivale's comedy *The Don*. He played Luke Cranbourne in *Woodbarrow Farm* on its first production, June 18, and Mark Hargreaves in *Conscience*, July 17. He joined the Adelphi company in July of this year, and played Lieutenant Stanley in *The Union Jack*, beginning July 19. In 1889 he played Henri Vaudelle in *Esther Soudraz* at Wolverhampton most successfully. With Mrs. Langtry he played Orlando in *As You Like It*, beginning Feb. 24, and played Dick Fitzroy in *Old Friends*, beginning June 25. In the following August he went to Australia, where he played Harry O'Malley in *The English Rose* for a season with great success. He returned in 1893 and appeared again in London as Mr. Benjamin Brewster in *A Trip to Chicago*, Sept. 5. The following season he played Ned Annesley in *Sowing the Wind* with a touring company. His next part in London was Rupert of Hentzau in *The Prisoner of Zenda*. His last appearance was Sept. 25, 1899, as Captain Winton in *Rob Roy*.

Chaudordy, Comte Alexandre Damaze de, French diplomatist, born Dec. 4, 1826; died March 26, 1899. He was wounded in 1848 while serving as a national guard in suppressing the republican uprising. He was an *attaché* to the embassy at Rome in 1851, whence he was called in 1854 to a post in the Ministry of Foreign Affairs. He was subsequently attached to the legations in London, Weimar, Copenhagen, Karlsruhe, and Madrid. In 1870 he represented the Ministry of Foreign Affairs at Tours and Bordeaux. During the war he defended the French army against Prince Bismarck's accusations, and issued circulars complaining of excesses committed by German soldiers. He was elected to the National Assembly in 1871, and in 1873 became minister at Berne. In 1874 he was transferred to Madrid. He represented France at the Constantinople Conference of 1875, returned then to Madrid, and in 1881 became ambassador at St. Petersburg, retiring in the following year. The Comte de Chaudordy published several historical and political works.

Cherbuliez, Charles Victor, French author, born in Geneva in 1829; died in Paris, July 1, 1899. He was of French Huguenot descent, was well educated, knowing not only French and German, but other modern languages, and went to Paris to begin his literary career. His novels soon acquired a high reputation, and he wrote a great number, distinguished for their knowledge, style, subtlety, and wit, but, in the view of some critics, wanting in feeling, simplicity, and reality. His first was *Comte Kostia* (1863). This was followed by *Ladislav Bolski*, *Le Fiancé de Made-moiselle de St. Maur*, *Prosper Randoce*, and nu-

merous others. When the influence of realism began to be felt, he wrote *La Ferme du Choquard*, a picture of rural vices, and other works of the kind. His fiction and his style both lost their charm when newer writers arose. But his literary activity was not confined to this field. As an essayist and critic he exerted considerable influence on French thought, and opened an outlook on the activities of foreign countries that was free from the prejudice and distortion common to French writers. His discussion of public affairs and his literary criticisms were generally printed in the *Revue des Deux Mondes* under the signature G. Valbert. Selections from these articles were published in book form. One series of studies treats of Spain and the critical period in Spanish politics following the revolution of 1808. Another volume is *Hommes et Choses d'Allemagne*. Cherbuliez was a member of the French Academy.

Chesnelong, Pierre Charles, French politician, born in Orthez, Basses Pyrénées, April 14, 1820; died there in July, 1899. He was a republican in 1848, but entered the *Corps Législatif* in 1859 as an official candidate, and retained his seat until the fall of the empire. In 1872 he was elected to the National Assembly, and took his seat with the Right. He soon made himself known as an active worker for the restoration of the monarchy. He was spokesman of the committee that presented the programme of the party to the *Comte de Chambord* at Frohsdorff, and got his consent to a charter to be framed by the King and the Assembly in consultation, but not to the retention of the tricolor instead of the white flag. He was elected an irremovable Senator in 1876, and devoted his activities to founding clubs of Christian workingmen, while constituting himself in the Senate a champion of religion, the family, property, and old traditions.

Chiniquy, Charles, Canadian preacher, born in Kamouraska, Quebec, July 30, 1809; died in Montreal, Jan. 16, 1899. He was parish priest of Beauport until he joined the Oblate Fathers in 1846 in order to devote himself to a crusade against drunkenness, in which he was so successful that hundreds of thousands in Lower Canada took the pledge of total abstinence. He emigrated to Illinois in 1851 and established at Kankakee a colony of 10,000 French Canadians. In 1858 he became a Protestant and devoted his energy and oratorical powers to bitter attacks on the principles and practices of the Roman Catholic Church, going to Quebec in 1859, where he was mobbed. Such riotous assaults were frequent incidents of his polemical campaigns during the next thirty years and more, in which he continued his tours and almost daily addresses in Canada, the United States, Great Britain, and Australia. He was attacked so often with stones, sticks, pistols, and daggers, so many times struck and bruised, that he said the idea of dying under the blows of his enemies was his daily thought. Father Chiniquy was ordained a minister of the Presbyterian Church of Canada. He wrote controversial books, the chief of which was *Fifty Years in the Church of Rome*.

Chitty, Joseph William, English jurist, born in London in 1828; died there, Feb. 15, 1899. He was the son of Thomas Chitty, a famous special pleader and author of a text-book on common-law practice, who sent him to Eton, whence he passed to Oxford and won a first-class in humane letters. He was called to the bar in 1856, obtained a large Chancery practice, became a Queen's counsel in 1874, was at the head of the bar in the Court of Rolls, earning an income of

£13,000, was elected to Parliament in 1880, and in 1881 was made a judge of the Chancery division of the High Court, becoming virtually the successor to Sir George Jessel, his friend and guide, in whose court he had won his great reputation. He was a profound lawyer and a judge who deliberated well, from whose decisions appeals were not frequently made, and rarely with success.

Cleveland, Miss Louie (Mrs. Hermann Dickson), English actress, born in Plymouth, England, Oct. 22, 1868; died in Paisley, Scotland, March 26, 1899. She came of a theatrical family, and made her first appearance at the age of twelve. Her first engagement was as a singer of small parts in D'Oyly Carte's company, playing the Gilbert and Sullivan operas in the English provinces. After two years of this work she was engaged by Wilson Barrett at the Princess's Theater, London, where she played boys' and singing parts. She next made a tour of the Continent as the leading singer in *Faust* up to *Date* and *Carmen*. On the visits made by the company from the Gaiety Theater to the United States Miss Cleveland appeared in the principal rôles. On her return to England she married Hermann Dickson, a manager, and began to play comedy characters. She was very successful as Polly Eccles in *Caste*, Selina Sparks in *A Merry Madcap*, and Rebecca in *Pink Dominoes*. She was soubrette of the Princess's Theater, Glasgow, at the time of her fatal illness.

Colomb, Philip Howard, British naval officer, born in Scotland in May, 1831; died in Botley, Hampshire, Oct. 13, 1899. He entered the navy in 1846, and saw active service on the coast of Portugal. He was a midshipman on the *Reynard*, which was wrecked in 1851 while suppressing piracy in the China seas. In 1854 he was mate on the *Phoenix* in the arctic expedition, and in the Crimean War he served with distinction as a lieutenant. From 1858 to 1868 he was employed in construction in the Devonport dockyard. For the next twelve years he served at sea as commander and captain in the suppression of the slave trade on the China station and in the Mediterranean. For the remaining period of his active service he commanded at Portsmouth. He was retired as captain in 1886, and on the retired list became rear admiral in 1887 and vice-admiral in 1892. Foreseeing at an early period the changes that would follow the introduction of steam and rifled ordnance, Colomb devised a method of transmitting alphabetical signals by flashing lanterns which was completed in 1861, but not finally adopted till 1867. He studied the alterations in tactics that would be necessary for handling and fighting steam ironclad fleets. He was attached to the Channel fleet in 1863, and authorized to study experimentally the effect of the helm on steam-propelled vessels in varying rates of speed. The fruit of his observations was a new evolutionary manual, issued in 1865. He devoted his mind next to the means of avoiding collisions at sea, and after long discussion and controversy most of his views were adopted by the International Conference at Washington in 1899. In 1873 he devised a new system for the interior lighting of ships. His manual of fleet evolutions was published in 1874. After his retirement he gave himself up to the study of naval strategy and the history and theory of naval warfare, on which he lectured in the naval college at Greenwich in 1887 and 1888. In 1891 he published an elaborate work on *Naval Warfare*, and in 1893 a volume of *Essays on Naval Defense*.

Congreve, Richard, English philosopher, born in Leamington, Sept. 4, 1818; died in Hampstead, July 5, 1899. He was educated at Rugby and Oxford, and was subsequently assistant master at Rugby and tutor at Wadham. About 1855 he became an ardent follower of Auguste Comte, and resigned his post at Wadham College in consequence. For the remainder of his life he was the principal English exponent of Comte's religion of humanity. Besides a translation of Comte's *Catechism of Positive Religion* (London, 1858), he published *The Roman Empire of the West* (1855); *Gibraltar, or the Foreign Policy of England* (1856); *India* (1858); *Elizabeth of England* (1862); *Mr. Broadhead and the Anonymous Press* (1867); *Aristotle's Politics*, edited (1874); *Essays: Political, Social, and Religious* (1874); and *Human Catholicism* (1876).

Corvin-Kroukowski, Pierre, known under his literary name of Pierre Newski, Russian author, born in Nijni-Novgorod in 1844; died in Asnières in July, 1899. He wrote for the principal Paris newspapers, published a history of the Russian theater, wrote romances, produced plays, and collaborated with Alexander Dumas. His best-known piece is the *Danicheffa*.

Dawson, Sir John William, Canadian geologist, born in Pictou, N. S., Oct. 13, 1820; died Nov. 20, 1899. He was educated at the University of Edinburgh, and, returning to Nova Scotia, devoted himself to the study of the natural history and geology of the maritime provinces. The results of his investigations appeared in his *Acadian Geology* (Edinburgh, 1855). In 1842 and in 1852 he gave material assistance to Sir Charles Lyell during the latter's explorations in Nova Scotia. In 1886 he was president of the British Association at its meeting in Montreal. In 1884 he was knighted. Besides many professional papers, his writings include *Archæia, or Studies on the Cosmogony and Natural History of the Hebrew Scriptures* (London, 1858); *Agriculture for Schools* (Toronto, 1864); *Handbook of Acadian Zoology* (1871); *The Story of Earth and Man*, written in opposition to the Darwinian hypothesis of the origin of species (1872); *Nature and the Bible* (New York, 1875); *Life's Dawn on Earth* (1875); *The Origin of the World* (1878); *Fossil Men and their American Analogues* (1880); *The Chain of Life in Geological Time* (1881); *The Geological History of Plants* (1888); *Modern Science in Bible Lands* (1888); *Handbook of Canadian Geology* (1889); *Modern Ideas of Evolution* (1890); *Some Salient Points in the Science of the Earth* (1893); *The Ice Age in Canada* (1894); *The Meeting Place of Geology and History* (1894); and *Relics of Primeval Life* (1897).

Deane, Sir Thomas Newenham, Irish architect, born in Cork, June 15, 1828; died in Dublin, Nov. 8, 1899. His father, grandfather, and great-grandfather were architects. He studied with his father, with whom he became associated in business. He was knighted in 1890. His principal work is the *Science and Art Museum and National Library of Ireland*, in Dublin. Among his many other designs are *Tuam Cathedral*, *Church of Ireland Training College*, *restoration of Kilkenney Cathedral*, the *Physiological Laboratory* and the *Anthropological Museum* in Oxford. His work is characterized by dignity of treatment and excellence of general design.

Delaborde, Comte Henri, French art historian, born in Rennes in 1811; died in Paris, June 1, 1899. He was the son of Gen. Delaborde, and studied art under Paul Delaroche. In the series of historical pictures ordered by Louis Philippe for the galleries of Versailles he painted the

Knights of St. John of Jerusalem and the Taking of Damietta. In later life he became known as a critic and historian of art, on which he wrote books, essays, and reviews. For many years he was curator of engravings at the national library and secretary of the Academy of Fine Arts. Essays on contemporary art, studies of Italian and French art, and a life of Ingres constitute three of the best known of his volumes, besides his various works on engraving.

Dene, Dorothy, English actress, born in London in 1861; died there, Dec. 27, 1899. Her first appearance of importance was at the Prince's Theater, London, June 22, 1885, in *Gringoire*. On May 13, 1886, she appeared as *Cassandra* in *The Story of Orestes*, and was received with great enthusiasm. On June 14 of the same year she played *Madge* in the original production of *Jack at the Royalty*. She played the heroine in *Love's Martyrdom*, July 3, and on Oct. 27 created another original part in *Noah's Ark*. During the seasons of 1887, 1888, and 1889 she played in many London productions as the heroine, and was a member of Benson's Shakespearean Company and of the company engaged by Mrs. Labouchere for her production of *Midsummer Night's Dream*. She came to New York under engagement to the Theater of Arts and Letters, and played leading parts in the productions made by that organization. She retired from the stage in 1894. Her grace and classic cast of features made her a favorite model with Lord Leighton, who painted her in his *Greek Girls playing Ball*, and *Cymon and Iphigenia*.

De Salla, Barton, English actor, born in Paris, Dec. 6, 1832; died in Croydon, England, June 29, 1899. He went to London with his parents at six years of age, and made his first appearance on the stage as a player of children's parts in the companies supporting such French actors as visited England. His first appearance in English drama was as a member of the company of the Theater Royal, Belfast, where he demonstrated his worth as a singing comedian. For many years he played as a stock actor in the theaters of Dublin, Liverpool, and Edinburgh. He gave concerts and operatic performances. He was the Gen. Sir Drummond Fyfe in *The French Maid*, at the Vaudeville, London, in 1898-'99, and was playing Dr. Magrath in *The Broken Melody* when seized with his fatal illness. His last appearance was June 28, 1899.

Dèves, Paul, French statesman, born in Aurillac, Nov. 8, 1837; died Nov. 13, 1899. He first entered the Chamber in 1876, and in 1881 he became Minister of Agriculture in the Gambetta Cabinet. In 1882 and 1883 he was Minister of Justice in the Cabinets of Duclerc and Fallières. In 1885 he lost his seat in the Chamber, but in 1886 he was elected Senator.

Dollman, Francis Thomas, English architect, born in 1812; died in London, Dec. 26, 1899. He was a pupil of Augustus Pugin and afterward of Basevi, and became an associate of the Royal Institute of British Architects in 1864, and fellow in 1895. He built several churches, but was best known as a most accomplished draughtsman and the author of architectural works of much value. These include *Examples of Antient Pulpits in England* (London, 1849); *Examples of Antient Domestic Architecture* (1856-'58); *The Priory Church of St. Mary Overie, Southwark* (1881); *An Analysis of Antient Domestic Architecture*, with J. R. Jobbins (1860-'64). With Bowman and Crowther he was associated in the preparation of their great work on *The Ecclesiastical Architecture of the Middle Ages*.

Ellis, Thomas Edward, Welsh politician, born in Cynlas, Merioneth, in 1859; died in Cannes, France, April 5, 1899. He was the son of a farmer, and learned English as a foreign tongue. He entered the Bala Theological College to prepare himself for the Welsh Calvinistic ministry, studied afterward at University College, Aberystwith, and thence went to Oxford, where he took classical honors. After acting as private secretary to John Brunner, he became the leader of the Young Wales party, being elected to Parliament in 1886. The tithe troubles of 1887 afforded the opportunity for pleading the cause of land reform, Church disestablishment, and education in Wales. He helped in the elaboration of the schemes of education carried through by the Liberal party, obtained an electoral success for his party in the county councils when they were first instituted, many Welsh nationalists being elected on his programme, and in 1892 he was appointed a junior Lord of the Treasury. From 1894 till his death he was the Liberal whip in the House of Commons.

Ennery, Adolphe Philippe d', a French dramatist, born in Paris in 1811; died there, Jan. 26, 1899. He was of Hebrew parentage. Starting in life as a clerk, he took to journalism, and then turned to the drama, which he worked as a profitable business, studying scenic effects and the possibilities of the stage; startling, but not intricate plots; novel situations; the quick change from tragic to comic scenes, and the contrast between serious and ludicrous characters; and conventional morality, such as the general public likes. Thus he came to be the master of modern melodrama, whose plays were the staple attraction of country theaters, and were played in Paris, sometimes three in one night on the stages of different theaters. His first attempt was *Émile, on le fils d'un Pair de France* (1831). His *Honneur de ma Fille* (1835) was followed by others in quick succession. From 1837 he produced almost every year one play or two, sometimes six or seven, and kept it up for fifty years, amassing a fortune of 6,000,000 francs. Some of his successful plays are the *Prise de Pekin*, *Deux Orphelines*, *Martyre*, *La Grâce de Dieu*, *Dame de St. Tropes*, and *Afeule*. He possessed collections of Chinese and Japanese art, which he intended to bequeath to the state.

Erckmann, Émile, French novelist, born in Pfalzburg in 1822; died in Paris, March 14, 1899. He was the son of a bookseller, and studied law, but his talent for writing was early developed, and in 1847 he formed a literary partnership with M. Chatrian, then a professor at Pfalzburg. In the time of the second empire tales and legends of Alsace-Lorraine, signed by the coupled names of Erckmann and Chatrian, had some success, and long romances which followed attained an enormous popularity. The most celebrated of these was *Le Conscriit* de 1813. When interest in these began to wane, it was revived for a time by the success of the plays of Erckmann-Chatrian. *Le Juif Polonais* and *L'Ami Fritz* were dramas of considerable merit; the *Rantzau*, though of mediocre quality, was scarcely less remunerative. When their financial success was at the flood the two associates quarreled over business matters. They were business partners, rather than collaborators, for Chatrian attended to the advertisement and sale of the productions of Erckmann, who after they separated continued to write industriously, and his writings, although no longer in fashion, showed no diminution of merit. The short stories, strong in local color and sentiment, descriptive power, and keen and humorous

characterization of types of people, are still relished.

Farrer, Lord, an English economist and administrator, born in London in 1819; died at Dorking, Oct. 11, 1899. Thomas Henry Farrer was the son of an eminent lawyer, and was educated at Eton and Oxford, was called to the bar, and then entered the civil service as a clerk in the Board of Trade. Rising to be permanent secretary, he held that post nearly forty years, and was the arbiter in many decisions of the Board of Trade. But in later years he could not shape the policy of the Government in accordance with the Manchester theories of unrestricted individualism and *laissez faire*, which he was about the last economist in England to uphold in their purity. As a thoroughgoing individualist, it was the easier for him to appease the shipowners when Parliament imposed restrictions for the benefit of seamen and the railroad managers and shareholders when the regulation of railroads was made more and more stringent. He fought against forms of Government interference that since he retired have been introduced, and as adviser on commercial treaties he resisted unflinchingly and successfully every form of protection or retaliation. He was a leader in the organization of the Gold-Standard Defense Association in 1895.

Faure, François Félix, President of the French Republic, born Jan. 30, 1841; died in Paris, Feb. 16, 1899. He was descended from humble Provençal ancestors, received a good commercial education, learned the leather business from the foundation, became a shipowner and shipbuilder at Havre, entered the Chamber of Deputies at the age of forty, held various ministerial posts, and was elected President of the republic on Jan. 17, 1895 (see *Annual Cyclopædia* for 1895, page 280). He was a representative *bourgeois*, and his very lack of renown and political prestige made him popular with the middle classes, and his humble origin and the fact that he had once worn the workman's blouse as a tanner's apprentice pleased the fancy of the proletariat. The nation was more than satisfied when it found that this President, selected almost by chance and previously so inconspicuous, displayed extraordinary tact and dignity of style in his public utterances and communications with the heads of foreign states, and maintained the dignity of his office with graceful ease. The visit of the Czar to Paris in the autumn of 1896, and President Faure's return visit to St. Petersburg in the following year, marked by the open avowal of the Franco-Russian alliance, cast a temporary halo of glory about the presidency of Félix Faure, which began to fade, however, when the fickle and impulsive French public ceased to value the Russian alliance. President Faure's popularity diminished rapidly, and his taste for display and etiquette, which the people had first admired and encouraged, made him a butt for satire and detraction. His health broke down under the burden of responsibility that was imposed by the scandals and animosities of the Dreyfus crisis, and he was suddenly stricken by apoplexy.

Ferguson, John, British journalist, born in Lanarkshire, Scotland, Oct. 28, 1851; died in London, April 3, 1899. For nearly a score of years he contributed special articles to the *London Times*, besides writing regularly for the *Referee*, the *Academy*, and other periodicals. Among his published works are *The Insanity of Genius* and *The Human Machine: An Inquiry into the Divinity of Human Faculty* (1899).

Flower, Sir William, English naturalist, born in Stratford-on-Avon, Nov. 30, 1831; died in London, July 1, 1899. He studied in University College, London, served through the Crimean War as assistant surgeon, was demonstrator of anatomy in Middlesex Hospital after his return, then curator of the Hunterian Museum, and later Professor of Comparative Anatomy and Physiology in the Royal College of Physicians and Surgeons from 1869 to 1884, when he became director of the Natural History Museum in South Kensington. The collections he arranged in double series, one set arranged in types and exposed to view for popular instruction, while the great mass of specimens were carefully classified and safely stored so as to be available for morphological study. He was the author of an Introduction to the Osteology of the Mammalia, Fashion in Deformity, The Horse, essays on museum management, and memoirs on the brain and dentition of marsupials, the cranium of the carnivores, and the evolution of the cetaceans.

Foli, Signor (Allan James Foley), Irish singer, born in Cahir, Ireland, in 1835; died in Southport, England, Oct. 20, 1899. He was one of the most celebrated of bassos. He was brought by his parents to the United States in early boyhood, and lived in Hartford, Conn. He was there a member of a church choir, and attracted so much attention by his extraordinary voice that generous citizens contributed to a fund for his education as an opera singer in Italy. He made his *début* as Signor Foli, with instant approval, at Catania, Italy, in 1862, and soon was engaged for the Italian opera in Paris. There he attracted the attention of J. H. Mapleson, the English impresario, who engaged him for Her Majesty's Italian Opera Company, London, in 1865. Foli was associated in Mapleson's company, on his introduction to the English public, with Titiens, Grisi, Trebelli, Lablache, Mario, Arditi, and Rokitski. For the long term of Mr. Mapleson's management of Italian opera in England and America Foli was his favorite and perhaps most popular basso. In private life he was a big, jovial, and generous Irish boy, with the happy quality of making staunch friends everywhere. He visited both Americas, South Africa, and Australia, singing both opera and oratorio. In the last he was especially admirable in Elijah, The Messiah, The Redemption, and The Golden Legend. It had been his intention to retire from the stage at the close of his engagement with Mme. Albani's Concert Company, with which he was traveling in England at the time of his death, and he had fixed upon Tacoma, Washington, as a place of residence. But he had contracted a severe cold, and was suddenly attacked with pneumonia, from which he could not rally. His last appearance was in Southport, England, Oct. 14, 1899.

Forbes, John, a Scottish clergyman, born in Bohaven, Scotland, in 1802; died in January, 1899. His education was received at Marischal and King's Colleges and at Göttingen. In 1840 he became governor of John Watson's Institution in Edinburgh, and in 1850 of Donaldson's Hospital. In 1869 he was appointed Professor of Hebrew at Aberdeen University, and he was emeritus professor there at the time of his death. He was the author of Symmetrical Structure of Scripture (Edinburgh); Analytical Commentary on the Epistle to the Romans (London, 1868); Predestination and Free Will (Edinburgh, 1878); and Studies on the Book of Psalms (1888).

Ford, Sir Clare, an English diplomatist, born in 1828; died in Paris, Jan. 31, 1899. He was in

a dragoon regiment four years, sold out in 1852, entered the diplomatic service, and was attached by turns to most of the legations in Europe and America, acquiring gradually a reputation as a specialist in commercial questions. In 1875 he represented the British Government before the Halifax International Commission that made the United States pay \$5,500,000 for the fishery rights acquired under the treaty of 1871. This triumph secured him the appointment of minister at Buenos Ayres. He arranged a restoration of diplomatic relations with Uruguay, and was accredited to Montevideo. He was minister to Brazil for a year or two, was transferred to Athens in 1881, and in 1884 went to Madrid, where he remained till 1892. In 1884 and 1885 he was commissioned at Paris for the settlement of the Newfoundland fisheries question, but the conventions that he signed were not ratified. In 1886 he negotiated a commercial treaty with Spain.

Forsyth, William, Scottish author, born in Greenock, Scotland, Oct. 25, 1812; died Dec. 26, 1899. He was educated at Cambridge, and was called to the bar in 1839. He represented Marylebone in Parliament, 1874-'80, but he made little figure in the debates. He traveled extensively, and was deeply interested in prison reforms. He became Queen's counsel in 1857, and held office in various professional and other societies. He wrote professional and miscellaneous works, of varying degrees of excellence, but he outlived his literary reputation many years, and at the time of his death had passed from the memory of most readers. The list of his published books comprises The Law of Composition with Creditors (London, 1841); The Law relating to Simony (1844); Hortensius, or the Duty and Office of an Advocate (1849); The Law of Infants (1850); The History of Trial by Jury (1852); History of the Captivity of Napoleon at St. Helena (1853); Life of Marcus Tullius Cicero (1864); Rome and its Ruins (1865); Novels and Novelists of the Eighteenth Century (1871); Hannibal in Italy: An Historical Drama (1872); Essays: Critical and Narrative (1874); The Slavonic Provinces South of the Danube (1876); and Idyls and Lyrics.

Foster, Myles Birket, English artist, born in North Shields, Feb. 4, 1825; died in Weybridge, March 27, 1899. At sixteen he was apprenticed to E. Landells, a well-known wood engraver, who encouraged him to draw on wood blocks, and in 1846 he began the business on his own account. For a dozen years he was a prolific illustrator of books, but then turned his attention toward water-color painting, exhibiting his first picture, A Farm, at the Academy in 1859. At a later period he exhibited pictures in oils. His work, both as illustrator and colorist, is very popular and has a decided charm. Its sincerity is everywhere apparent, but it is deficient in insight and the deeper kind of pathos.

Frankland, Sir Edward, English chemist, born in Churchtown in 1825; died in Norway, Aug. 11, 1899. He was educated in the Lancaster grammar school and studied chemistry first in the Museum of Practical Geology and afterward in the laboratory of Liebig at Giessen and that of Bunsen at Marburg. He isolated with Kolbe several organic radicals, and afterward devoted himself to the synthesis of organic bodies. In this work he made the discovery of the union of organic radicals with metals, announcing in 1850 the preparation of compounds of zinc with methyl and ethyl and predicting the existence of a score of similar bodies. From this he deduced the conclusion that an atom of the metal

could only attach to itself a definite number of the atoms of other elements, which led to the doctrine of atomicity or equivalence of the elements. He was appointed Professor of Chemistry in Owens College, Manchester, in 1851, and there began to devote himself to applied chemistry. He investigated the gases manufactured from different kinds of coal, and incidentally invented a gas burner with two concentric chimneys. He also developed the process for making water gas. Becoming Professor of Chemistry in the Royal School of Mines in 1865, he made monthly analyses of the water consumed in the metropolis, elaborating new processes for the accurate detection of pollution by sewage or animal matters, in which he was helped by H. E. Armstrong. When he was appointed on the commission to report on the pollution of rivers in 1868 he went to work in an improved laboratory, and during six years he investigated waters from different geological strata, the water of lakes, wells, and rivers, the purification of polluted water, the propagation of disease by drinking water, the healthfulness of hard water, the deterioration of water in mains and pipes, the purification of sewage, and the means of preventing the pollution of rivers by factory refuse. Frankland proved experimentally that compressed gases are capable of giving out a flame as brilliant, with a spectrum as constant, as ignited solid or liquid matter, and from his experiments he was convinced that the sun is not solid or liquid, that the photosphere at least consists of vapor. These experiments grew out of observations on the rate of combustion of candles in the rarefied air at the summit of Mont Blanc when he passed a night there with Tyndall in August, 1859. With Fick and Wislicenus he made experiments to determine the origin of muscular power by calculating the muscular oxidation and measuring the amount of nitrogen expelled from the body before, during, and after an ascent of the Faulhorn, no nitrogenous food being taken during the experiment. He concluded that the transformation of muscle supplies only a small fraction of the energy, the larger proportion being evolved by the oxidation of non-nitrogenous substances, such as fat.

Fruin, Robert, Dutch historian, born in 1824; died in Leyden, Jan. 29, 1899. His researches in archives gave him a great fund of original knowledge, and his penetrating judgment and spirit of impartiality placed him at the head of modern investigators of Dutch history, of which he was professor at Leyden from 1860 till 1894. He wrote a work covering ten years of the Dutch struggle for independence, and many historical essays.

George Alexandrovich, Czarevich of Russia, born in Tsarskoe Selo, May 9, 1871; died in Abbas Tuman, in the Caucasus, July 10, 1899. The Grand Duke George was three years younger than his brother, the reigning Czar, whom he accompanied on a voyage round the world in 1890. During this voyage the symptoms of pulmonary consumption were observed, and, being affected by Indian fever also at Bombay, he returned home a confirmed invalid. The heir apparent after his death is the Grand Duke Michael Alexandrovich, born Dec. 4, 1878.

Gould, James Nutcombe, English actor, born in Devonshire in 1849; died in Lustleigh, Oct. 10, 1899. He was the son of a clergyman, and was educated at King's College, London. He began as an actor in Shakespearean comedy in 1884, and traveled three years, playing many Shakespearean parts with marked success. When Beer-bohm Tree produced *The Red Lamp* in Lon-

don, in 1887, Mr. Gould played Rheinveck during the entire run. After touring with the companies of Helen Barry and Ben Greet he returned to London, where he played Roger Willoughby in *The Power of Love*, March 6, 1888, and on Oct. 17 was the Lord Petersfield in *A Patron Saint* and Lord Sakmundham in Brantingham Hall, Nov. 29. During 1889 he was Lord Saltash in *A Panel Picture*, Prince Maleotti in *Forget-me-Not*, Mr. Crossley in *Doubt*, Mr. Basing in *Her Own Witness*, Lambert Streike in the revival of *The Colonel*, and Rev. Mr. Bream in *Man and the Woman*. When George Alexander organized his company to occupy The Avenue Theater in the spring of 1890, Mr. Gould, who had become one of the favorite representatives of dignified modern character, was engaged, and he played first in that house in *Fool's Mate*, Feb. 1, 1890. He was Mr. Wriothlesley in *Miss Cinderella*, Jacquemin in *The Grandsire*, Vaillant in *The Struggle for Life*, and Dr. Latimer in *Sunlight and Shadow*. He played at The Haymarket in *Comedy and Tragedy* in the interim, and as Jacques in *As You Like It* to the Rosalind of Mrs. Patrick Campbell. When Lady Windermere's Fan was produced, Feb. 20, 1892, he was Lord Darlington, and Mr. Pedrick in *Liberty Hall*. In *The Second Mrs. Tanqueray* he was Frank Misquith, Q. C. At the Haymarket, in 1894, he was Earl of Wauborough in *The Charlatan*, Diomedes in *Once Upon a Time*, Viscount Mount Sowell in *A Bunch of Violets*, and the Rev. Stephen Wynne in *John-a-Dreams*. In the fine production of *Romeo and Juliet* made by Forbes-Robertson in 1895 he was Friar Laurence. He also played in revivals of *Much Ado about Nothing* and *Fedora*.

Grant, Baron Albert, English promoter, born in Dublin in 1830; died there, Aug. 30, 1899. He was of Hebrew extraction, and after attending school in London and Paris began as a wine merchant, became a money lender, changed his name from Gottheimer to Grant, founded an investment company in 1865, and operated on an enormous scale in Erie shares, in worthless Nevada mines, in the Emma mine bubble, in visionary English mines, in Honduras and Paraguay government loans, in all sorts of speculative properties. He gave Leicester Square to London, contributed to the gallery at Milan, thus winning his title, made other lavish gifts, built himself a costly palace, represented Kidderminster in Parliament, and in 1885 went into bankruptcy.

Graves, Charles, Anglican prelate, born in Dublin, Ireland, Nov. 6, 1812; died there, July 17, 1899. He was educated at Trinity College, Dublin, where he became a fellow and was Professor of Mathematics, 1843-'62. He was president of the Royal Irish Academy in 1861-'65, and was also a fellow of the Royal Society. From 1860 to 1866 he was chaplain to the Lord Lieutenant, and was dean of Clonfert, 1864-'66. In the latter year he was consecrated Bishop of Limerick, Ardfer, and Aghadoc. He was a brother-in-law of Von Ranke, the German historian.

Greenbank, Henry Hewetson, English dramatist, born in London in 1866; died there, Feb. 26, 1899. He first became known as a play writer on the production of his comedy called *The Director* at Terry's Theater, London, May 7, 1891. This first effort was not successful, but was followed by an operetta called *Captain Billy*, Sept. 24, with success. Oct. 6, 1892, *Incognito*, adapted from *Le Cœur et la Main* of Charles Lecocq by Burnand, with lyrics by Greenbank, was produced and had fair success. *Beef Tea*, an amusing one-act operetta, was produced Oct. 27, and was well received. He was thenceforward the

leading writer of lyrics for musical comedy in London, and was the author of those of *The Gaiety Girl*, *An Artist's Model*, *A Runaway Girl*, *A Greek Slave*, and *San Toy*, which last work was not produced until after his death. He wrote also some pleasing songs for the successful play *Monte Carlo*.

Grosart, Alexander Balloch, English clergyman, born in Stirling, Scotland, June 18, 1822; died in Dublin in March, 1899. He held successive livings at Liverpool and Blackburn, but for several years resided at Dublin, editing the works of English authors of the sixteenth and seventeenth centuries. His original writings include *Small Sins* (1863); *Mighty to Save* (1863); *The Lambs all Safe* (1864); *The Prince of Light and the Prince of Darkness in Conflict* (1864); *Joining the Church* (1866); *Representative Nonconformists* (1879), and some of lesser note. His industry was prodigious, but his accuracy has not always gone unquestioned.

Groth, Klaus, German poet, born in Holstein, April 24, 1819; died in June, 1899. He studied philology at Bonn, and began to publish in the *Plattdeutscher dialect* poetry that soon attracted attention in Germany by its strength, sincerity, and conciseness. Afterward he wrote a long series of novels and tales devoted to the life, manners, and traditions of his native province. He was a zealous hunter of folklore, and was so attached to the Low German dialect that he wrote several philological treatises to prove its superiority to High German. In 1866 he was called to the professorship of the History of German Literature in the University of Kiel. Some of his most popular stories are *Meister Lamp und sein Dochter*, *Vettern*, *Baer de Goern*, and *Ut min Jungspardies*.

Hamilton, Walter, English author, born in London, Jan. 12, 1844; died Feb. 1, 1899. He was educated at the Collège de Dieppe. His earliest publication was *A Memoir of George Cruikshank* (London, 1878). Other works by him are *The Origin of the Office of Poet Laureate* (1879); *History of the Poets Laureate of England* (1879); *The Æsthetic Movement in England* (1882); *French Bookplates*; *Dated Bookplates*; *Odd Volumes and their Bookplates* (1898). He was the editor of *Poems and Parodies in Prayse of Tobacco*, and of an important work, in six volumes, entitled *Parodies of the Works of British and American Authors* (1884-'89).

Hay, John, British admiral, born in Perthshire, Scotland, in 1805; died in Edinburgh, Jan. 14, 1899. He entered the navy in 1819, and took part in the capture of *Morea Castle* in 1828. During the China war of 1840 and 1841 he served with distinction as lieutenant on the *Pylades*. He became commander in 1841 and captain in 1849, and was retired as rear admiral in 1866, receiving the rank of vice-admiral in 1873 and admiral in 1878.

Hennell, Sara Sophia, English author, born in England in 1813; died in Coventry, March 7, 1899. She was an early friend of George Eliot's, and appears to have exercised considerable influence in causing the latter to forsake the Methodism that she once professed. Miss Hennell's *Skeptical Tendency of Butler's Analogy* (London, 1850) made much stir at the time of its publication. Her other works are *Christianity and Infidelity*; *An Exposition of the Arguments on Both Sides* (1857); *The Early Christian Anticipation of an Approaching End of the World* (1860); *Thoughts in Aid of Faith* (1860); and *Present Religion as a Faith owning Fellowship with Thought* (1865-'87).

Herschell, Lord, English jurist, born in 1837; died in Washington, March 1, 1899. He was Attorney-General and afterward Lord Chancellor in Liberal cabinets. As Sir Farer Herschell he was one of the most active and distinguished of the legal members of his party, and when appointed Lord Chancellor in the Gladstone Cabinet of 1880 he was elevated to the peerage. He was sent to Washington in 1899 as chief of the British commissioners for the settlement of disputes between Canada and the United States.

Hervé, Édouard, French journalist, born in St. Denis, Réunion, in 1835; died in Paris, Jan. 4, 1899. He was the son of a Professor of Mathematics, studied in the Collège Napoléon, in Paris, took the first prize in philosophy in 1854, and entered the *École Normale*, but withdrew after gaining distinction in literature in order to devote himself to journalism. He wrote on politics in the *Revue de l'Instruction Publique* and the *Revue Contemporaine*, became editor of the *Journal de Dijon* in 1863, wrote for the *Temps* and the *Époque*, and sent to the *Journal de Genève* articles that could not be printed in France. In 1867 he founded, with M. J. Weiss, the *Journal de Paris*, in which appeared the boldest criticisms of the Imperial Government. He was an unsuccessful candidate for the Chamber in 1869. As editor of *Le Soleil*, which he established in 1873, he exercised a notable influence in public affairs. His articles on the visit of the Comte de Paris to Frohsdorff led to a duel, in which he wounded Edmond About. He upheld the policy of the Broglie, Cisse, and Buffet cabinets, and defended the reactionary measures in 1877; but after the elections had destroyed all hope of a restoration of the monarchy he warned the Republicans against attempts to effect it by violence. He attacked Jules Ferry's educational proposals in 1879 with energy and vigor. After the death of the Comte de Chambord he was the first to advocate a union of the Royalists and to hail the Orleans prince as the head of the house of France. He was elected to the French Academy in 1886.

Heureaux, Ulises, President of Santo Domingo, born in Puerto Plata in 1853; died in Moca, July 26, 1899. He was the son of a Haytian mulatto and a negress from St. Thomas, entered the Dominican army as a private, and rose through successive grades to that of major general, having distinguished himself in the wars against the Spaniards. He was Government delegate in Cibao in 1878, and in 1880 delegate of the provisional government for the southern provinces. During the administration of Merino he was Minister of the Interior and Prime Minister. He was elected President of the republic in 1882, serving till 1884. In 1887 he was elected again, and retained the reins of Government and scarcely disputed control of the electorate till his death by assassination. But for his vigilance and courage he would have been assassinated long before, for he did not himself spare the lives of his enemies. He was as unscrupulous as he was despotic and cruel, but always affable and dignified in his demeanor. His friends he permitted to enrich themselves by monopolies and concessions. Putting away his wife, he kept up luxurious establishments for women in various towns, and they were of service to him in watching the constantly hatching conspiracies. He employed a host of spies of both sexes, belonging mostly to the lower classes. Speaking their own *patois* to the country people and scattering lavish alms among them, he maintained his popularity among the ignorant. He drank only water, and

cared nothing for display, yet his expenditures were enormous, and he wrought confusion in the public accounts by using for his private purposes the moneys obtained at exorbitant rates for proposed public improvements. With people of intelligence he conversed brilliantly in excellent Spanish, and with foreigners he could talk in French or English. Wherever he went he was surrounded by a bodyguard. Yet when he was struck down by a young man of good family whom he had talked with and complimented on making his acquaintance the evening before his guards made no attempt to stop the murderer nor to remove their master's body, which lay in the street, an object of execration to the populace. His hold on the army, for he treated the soldiers well and they believed him to be invulnerable and invincible, helped to keep him in power so long; his personal debts helped still more, for his favorites and ministers who plundered the public all lent money to him, an enormous sum in the aggregate, on which he was paying usurious interest.

Hicks, John Wale, English clergyman, born in 1840; died in Bloemfontein, Orange Free State, South Africa, in October, 1899. He was educated at the University of London and at Cambridge, and was admitted to the priesthood in the Established Church in 1872. He was Demonstrator of Chemistry in the University of Cambridge, 1871-'82, and Lecturer on Natural Science at Sidney-Sussex College, 1871-'92. During this same period he served as curate in the Church of St. Mary-the-Less at Cambridge, 1871-'77, and vicar of the same church 1877-'92. In September, 1892, he was consecrated Bishop of Bloemfontein, his diocese including not only the Orange Free State but Griqualand West, Basutoland, and Bechuanaland. He was the author of *A Text-book of Inorganic Chemistry* (1877); *Lectures on the Real Presence* (Cambridge, 1885); *The Christian Doctrine of the Godhead; Predestination and Election*; and *The Fall and Restoration of Man*. He was reckoned among the more "advanced" Churchmen.

Hicks, Thomas, English clergyman and scientist, born in Exeter, July 15, 1818; died in Clifton, Jan. 25, 1899. He was for some years in the Unitarian ministry, being pastor of Mill Hill Chapel at Leeds; but on account of the failure of his voice he retired from the exercise of his profession and, taking up the study of science, became eminent as a marine zoölogist. He was the author of *A History of the British Hydroid Zoöphytes* (London, 1868) and *A History of the British Marine Polyzoa* (1889), both works being mainly the results of his own independent investigations.

Hogarth, William, English singer, born in South Shields, England, in 1844; died in Brighton, June 4, 1899. In his youth he was a railroad and marine engineer. About 1860 he became prominent in Brighton as a singer, and he was choir-master of St. James's Church in that city. He was also the trombone player in the orchestra of the theater in the evening, and in consequence of the opportunity thus afforded he met Sir Michael Costa and was allowed to sing with the Italian opera during one of its engagements in Brighton. He then appeared with marked success in comic opera. When the Prince of Wales went to India, Hogarth organized an English minstrel company and traveled in the wake of the royal party, winning great success and a fair pecuniary reward. After a year's absence he returned to England and organized a company of his own with which he toured for a season. He was then engaged by

D'Oyly Carte for the Captain in *Pinafore*, and followed a successful London season in that part with one equally as successful in the production of *Babil and Bijou*. In partnership with the late Shiel Barry he formed a company for the production of the comic opera *Les Cloches de Corneville*, Mr. Barry assuming the part of the miser Gaspard, and Mr. Hogarth that of the *marquis*. Mr. Hogarth continued in the management and performance of this very popular opera until 1897, when he gave up singing and attended solely to the business direction of the company.

Hogg, Jabex, English surgeon, born in Chatham, April 4, 1817; died in Kensington, April 23, 1890. He was educated at the Rochester grammar school and the Charing Cross Hospital, and practiced as ophthalmic surgeon, 1850-'95. His published works comprise *A Manual of Photography* (1845); *A Manual of Domestic Medicine* (1848); *English Forests and Forest Trees* (1853); *Experimental and Natural Philosophy* (1854); *The Microscope: Its History, Construction, and Applications* (1854; 15th ed., 1898); *The Ophthalmoscope* (1858); *Vegetable Parasites of the Human Skin* (1859); *A Manual of Ophthalmoscopic Surgery* (1863); *Color Blindness* (1863); *Cataract and its Treatment* (1869); *Boarding out of Pauper Children* (1870); *Skin Diseases* (1873), reissued as *A Parasitic or Germ Theory of Diseases* (1876); *Microscopic Examination of Water* (1874); *Impairment of Vision from Spinal Concussion* (1876); *Arsenical Wall Paper Poison* (1879-'89); *The Cure of Cataract* (1877-'88), and many professional papers.

Johnstone, Eliza, English actress, born in London in 1838; died there, Aug. 3, 1899. She was principally known for her connection with the theater and performances of John Lawrence Toole. Her father was a provincial actor, and she played for some years in country theaters. When Mr. Toole organized his company in 1879 her great ability was made known to metropolitan audiences. She remained in that theater until Mr. Toole's retirement, when she too retired. A London writer says of her: "She was not a 'foil' to the comedian; she was an invaluable, almost indispensable, collaborator in the creation and sustentation of his popularity. Her humor was ever rich and ready, and her comedy talent was rare, keen, and surpassingly clever." The parts in which she won most favor were Mrs. Grumley in *Domestic Economy*, Mrs. Torrington in *Uncle Dick's Darling*, Mrs. Cranky in *The Birthplace of Podgers*, and Anna Maria in *Ici on Parle Français*.

Jones, Henry, writer on whist under the name of Cavendish; born in London, Nov. 2, 1831; died Feb. 10, 1899. He was the son of a physician, and prepared himself to follow the same profession at King's College and St. Bartholomew's Hospital. He played whist in his own home, and when he had written a pamphlet under his pen name his father would quote it as authority without suspecting who was the author. His book on *The Laws and Principles of Whist* appeared in 1862. He published also *Whist Developments* and authoritative manuals on piquet, écarté, billiards, tennis, and other games, giving up his practice as a surgeon in 1869. For many years he conducted the card department of the Field and the column on pastimes in the Queen.

Keeley, Mrs. Mary Anne, English actress, born in Ipswich, Nov. 22, 1805; died in London, March 13, 1899. She first appeared under her maiden name of Goward. The playbill of the Theater Royal, Dublin, for Oct. 30, 1823, has the

line: "On Saturday (Nov. 1), The Beggar's Opera, Polly, Miss Goward (her first appearance in that character, and fourth on any stage)." Miss Goward took an important place in the company and played that season Diana Vernon in Rob Roy, Lucy Bertram in Guy Mannering, Barbara in The Iron Chest, Rosalie in The Peasant Boy, Ninetta in Clari, the Maid of Milan, Countess Rosalvina in The Devil's Bridge, Victoria in The Castle of Andalusia, Narcissa in Inkle and Yarico, Jessica in The Merchant of Venice (to the Shylock of Clara Fisher, April 10, 1824), Effie in the Vampire, Princess of Navarre in John of Paris, Rose in Fontainebleau, Barbarina in The Marriage of Figaro, Rosetta in Love in a Village, and Norah in the Poor Soldier. She went from Dublin to the Theater Royal, Leeds, where she made her first appearance, June 29, 1824, as Rosina in The Barber of Seville. In 1825 "little Miss Goward," as she was affectionately called, was engaged for a musical company in London. Of this, her first London appearance, Mrs. Keeley used to say: "I was so dreadfully frightened that when I got on the stage I turned around and was going to bolt back into the wings, but Mr. Broadhurst, the tenor, caught hold of me." Thenceforward, for three fourths of a century, the new actress was a favorite of London. On July 15 Miss Goward played Leonora in The Padlock; on the 21st, Mrs. Courtney in Free and Easy; and on the 23d Rosanthe in Brother and Sister. During the performance of this last play she met for the first time on the stage the comedian Mr. Keeley, afterward her husband, who sang the part of Bartolo. The season of this musical company closed Oct. 5, 1825, to be reopened on July 1, 1826, the singers going during the intervening months to the regular theaters of London, to whose stock companies they severally belonged. Mr. Keeley and several others belonged to Covent Garden, and Miss Goward was engaged for that theater, where at first she played very small parts, and for several years her place was very humble, though her success with the opera company in the summer was great. J. R. Planché, speaking in his Recollections (vol. i, p. 81), of the first production of Weber's Oberon says: "A young lady who subsequently became one of the most popular actresses in my recollection was certainly included in the cast. That young lady was Miss Goward, now Mrs. Keeley, and to her was assigned the exquisite mermaid song in the finale to the second act." On June 27, 1829, at the opening of the Opera House, her name appeared for the first time as "Mrs. Keeley (late Miss Goward)." The notices of the first performance, The Middle Temple, Mrs. Keeley as Penelope and Mr. Keeley as Brutus Hairbrain, conveyed the intimation that the marriage had been privately known for some time. Exactly when "clever little Miss Goward" was married to "funny little Bob Keeley" the wits of the time have not told us, but the story is that they were married like Beatrice and Benedick. The English opera was transferred to the Theater Royal Adelphi in July, 1830, on account of the burning of the Lyceum. Mrs. Keeley continued to be a member of Covent Garden with Edmund Kean, the Kembles, and the brilliant people of their company, from 1825 to 1833. She made her first appearance in a comedy rôle of high order as Nerissa in The Merchant of Venice, Oct. 27, 1830, Charles Kemble playing Shylock and Fanny Kemble Portia. On the same evening Mrs. Keeley played Bessie Bowline in the new opera The Blue Anchor. During the season of 1832 she played in The Tartar Witch, The

Peddler Boy, and The Clutterbucks, or The Railroad of Love, all new comedies. In June, 1833, she and her husband became the leading members of a company at the Coburg Theater, renamed the Victoria. Here, in August of that year, she made her first great hit in comedy as Nell Gwyn, in a revival of Douglas Jerrold's play of that name. The success of the play and of the company was due to the enthusiasm created by her acting. In May, 1835, she played with great success a serious and pathetic part for the first time in Serle's The Shadows on the Wall. In April, 1836, she was one of the English Opera Company to whom the Lord Chamberlain granted the license of the Theater Royal Lyceum, and the season of that house was opened April 4 of that year with Lucille, a new musical comedy, with Mrs. Keeley in the title rôle. The Keeleys made their first bow to an American audience at the Park Theater, New York, Sept. 19, 1836. Mrs. Keeley played Gertrude in The Loan of a Lover and Tibby Postlethwaite in My Master's Rival. During this engagement she played all her favorite rôles, and both husband and wife were very successful. Ireland, in his History of the New York Stage, says of Mrs. Keeley (vol. ii, p. 177): "Her expression of feature was wonderful, and she could charm you with a smile or sadden you with a tear with equal ease and the equal certainty of winning your entire sympathy." They appeared in Philadelphia, Oct. 15, 1836, and after a short tour returned to New York, where they began a second engagement at the Park, Nov. 21, in Lucille. Another engagement in the following June and a farewell on July 28, 1837, with visits to a few other cities, ended the American experiment. Returning to London, Mrs. Keeley joined the company of Charles Mathews and Mme. Vestris at the Royal Olympic Theater. Mr. Keeley and William Farren were also members of the company. Her first part was Xarifa in the burlesque The New Servant, Sept. 29, 1837. In November she went to the Adelphi, where she originated the part of Smike in a dramatization of Nicholas Nickleby. She also created a sensation at this theater in the following season as Jack Sheppard in a play of that name. The season of 1841 she was at the Strand, and in 1842 was engaged by Mr. Macready for Drury Lane. April 8, 1844, Mrs. Keeley began a long and famous career as manager and leading actress of the Lyceum as a burlesque and comedy theater. Mr. Keeley was the leading male actor and assistant manager. Under their direction for three years bright new comedies by Charles Dance, Planché, and Albert Smith were produced. On July 22, 1844, Martin Chuzzlewit, dramatized by Stirling, was first produced, Mrs. Keeley playing Sairey Gamp. This play ran until October. The Cricket on the Hearth, dramatized by Albert Smith, was first played Dec. 20, 1845. Mrs. Keeley played Mrs. Peerybingle, (Dot), Mr. Keeley Caleb Plummer, and their daughter, Mary Keeley, made her first appearance as Bertha, Caleb's blind child. This play ran until March, 1847, when Mrs. Keeley's illness obliged them to take it off. She next played a long line of comedy parts with Mr. and Mrs. Charles Kean at the Haymarket. She played for the first time before Queen Victoria at Windsor Castle, Dec. 28, 1848. The play was The Merchant of Venice, and her part was Nerissa. From 1850 to 1855 she was at the Adelphi, where on March 8, 1855, she created her celebrated part of Betty Martin in a farce of that name adapted from the French of Mme. Girardin. In 1859 she played Hector in a burlesque at the Lyceum called The Siege of

Troy. Since that time she had appeared only occasionally, for the benefits of old friends. She and her husband had acquired a modest competence, and had been blessed with good children, and so they went calmly and gracefully into private life. Mr. Keeley died in 1869, and his wife remained in stricter seclusion thereafter. On Nov. 22, 1895, her ninetieth birthday was celebrated by a grand reception in her honor at the Lyceum Theater, London, at which all England paid her the homage due to a good woman and gifted artist.

Kiepert, Heinrich, German geographer, born in Berlin, July 31, 1818; died there, April 21, 1899. He was a pupil of Karl Ritter, and for many years he directed the geographical institute at Weimar. In 1859 he was called to a professorship in the University of Berlin, and subsequently he held a post in the Government statistical bureau. His atlases and maps are celebrated, and he was the author of a masterly treatise on ancient geography.

Krementsz, Philippus, German prelate, born in Coblenz in 1819; died in Cologne, May 6, 1899. He was the son of a butcher, studied theology in Bonn and Munich, and for many years had a charge in his native city, where he acquired great reputation as a preacher and a theologian. In 1867 he was made Bishop of Ermeland, West Prussia. He opposed the dogmas enunciated by Pope Pius IX at the Vatican Council, but accepted the doctrine of papal infallibility after its adoption and rigidly enforced the penalties against the clergy of his diocese who refused to conform. The Prussian Government and the bishops first came into open conflict in 1871 in consequence of his action in excommunicating a professor in the Braunsberg gymnasium. His revenues were withheld, but he was not deposed, as some of his colleagues were later. He recovered the confidence of the Government to such an extent that he was elevated in 1885, by official request, to the archbishopric of Cologne. In 1895 he was made a cardinal. He was one of the early Christian Socialists, and also the friend and adviser of the organizers of the Center party in Germany.

Lampman, Archibald, Canadian poet, born in Morpeth, Canada, Nov. 17, 1861; died in Ottawa, Feb. 10, 1899. His father, who was a clergyman of the Church of England, removed to Port Hope in 1866, and to Gore's Landing, on Rice lake, in 1867. During the seven years' residence of the family on this lake young Lampman showed an intense love of Nature and remarkable powers of observation. While living in an unsuitable house in Gore's Landing he was stricken with rheumatic fever, which undermined his delicate constitution and was probably the ultimate cause of his early death. He was prepared for college at a private school, at the Collegiate Institute in Cobourg, and at Trinity College school in Port Hope. He entered Trinity College, Canada, in 1879. During his college course his time was largely devoted to reading and to the editing of two college papers. Nevertheless he was graduated with second honors in 1882. He taught school in Orangeville a year, but this proved uncongenial, and he was appointed to a place in the Canadian civil service in Ottawa, which he held until his death. His first contributions to public journals (1884) were the poems *The Coming of Winter* and *Three Flower Petals*. His first poem in a magazine was *Bird Voices*, which appeared in *The Century* for May, 1885. The greater part of his contributions to periodical literature appeared in this magazine. In 1888 he

published a volume of his poems entitled *Among the Millet*, and in 1893 another entitled *Lyrics of Earth*. During his last illness he was correcting proofs of still another, *Aleyone*, but he did not live to see it finished. All his works have now been collected in a larger volume, edited, with a memoir, by his friend Duncan Campbell Scott. Mr. Lampman was elected a fellow of the Royal Society of Canada in 1895. While he was distinctively a poet of Nature, yet he did not withdraw himself from men. He mingled freely with all, had a sympathetic word for every one, believed in the doctrine of socialism, and predicted the ultimate political independence of Canada.

Lane, Mrs. Sara, English actress and dramatist, born in London, Sept. 22, 1822; died there, Aug. 16, 1899. She was known in her early days on the stage as Miss Sarah Wilton. Her *début* was made at the Ironmonger-row Saloon in 1838 in small parts in melodrama. In 1843 she was engaged by Mr. Lane, proprietor of the Britannia Saloon (afterward the famous Britannia Theater), as a member of his company. In 1845 she married Mr. Lane, and thereafter was known by his name. She became the leading lady of this theater, and entered upon a career as unique and popular as ever fell to the fortune of an actress. All her life she remained identified with this one London theater, playing all the heroines of popular melodrama, of Shakespeare's plays, and of most of the farces of her time—the idol of the people of eastern London, and after her husband's death (August, 1872) the sole manager of the favorite old theater of the shop people. Mr. Lane established the Britannia as a first-class theater in 1846, and in 1850 he rebuilt it in its present proportions, and of those who were at different times members of his company are some of the most distinguished names in the history of the English stage. It was an iron rule of the house, maintained until Mrs. Lane's death, that no stars should be entertained. It was a pure stock company, never broken by the intrusion of extraordinary attractions. The people were loyal to it and it was always loyal to its people, not making false pretense or greater promise than it could fulfill. In 1852 the celebrated American colored tragedian Ira Aldridge was a member of the company. For the fourteen or fifteen years preceding her death Mrs. Lane practically abandoned the old melodramatic traditions of the house and devoted her time and talent to careful and finely acted repetitions of the best successes of the West End theaters. A traditional characteristic of the Britannia is its merry, original, and magnificent pantomimes produced at Christmas time. In these as well as in the plays, burlesques, and dramas Mrs. Lane always assumed an important part, and for nearly sixty years she was one of London's institutions. She was a generous caretaker of the poor of her poor part of the city, and she is said to have given away from £1,000 to £3,000 a year in small sums to the needy, and if any especial case of distress came up she at once organized a benefit for relief. Thus it came that the name by which she was best known was "the good lady of the Brit." Her last public appearance was about three months before her death. On the occasion of her funeral the procession of mourning seemed to include all East London.

Leathley, Mrs. Mary Elizabeth Southwell (Dudley), English author, born in 1817; died in Hastings, Dec. 22, 1899. She was the daughter of a Quaker of Clonmel, Ireland, but became a Roman Catholic in 1847. She married the same year William Henry Leathley, a barrister. She

was the author of more than a hundred books for children, of which the most popular, *Chickweed* without *Chickweed*, reached a sale of half a million copies. Among her other books are *Children of Scripture*; *Mamma's Bible Stories*; *Conquerors and Captives* (1875); *In the Beginning, or From Eden to Canaan* (1875); *The Star of Promise* (1875); *The Story of Stories* (1875); and *Requiescat* (1888).

Leclercq, Rose (Mrs. Rose Fuller), English actress, born in Liverpool in 1846; died in London, March 25, 1899. She was the daughter of Charles and Margaret Leclercq, and sister of Carlotta Leclercq and Charles Leclercq, all players of high reputation. Her first appearance in a speaking part was as Ceres in *The Tempest* before Queen Victoria at Windsor Castle. She went first before a London audience June 26, 1854, as first dancer in the ballet at the Princess's Theater, and continued at this theater as a dancer and actress in burlesques until 1860. On Sept. 28, 1861, her first notable success was made in the part of Mrs. Waverly in John Brougham's *Playing with Fire*. She originated the part of Mary Vance in Burnand's *The Deal Boatman*, Sept. 21, 1863, and thenceforward was a popular player of emotional and serious characters. She played then for several seasons outside of London in Shakespearean and standard drama. When Dion Boucicault's *After Dark* was produced, Aug. 12, 1868, she was the original Eliza, the heroine, and by her fine acting contributed much toward the wonderful popularity of that drama and its long run. At the Adelphi, in 1869, she was the original Kate Jessop in the same author's *Lost at Sea*, the success of which was nearly equal to that of the previously noted play. A long engagement at the Princess's Theater in London began March 7, 1870, when she appeared as the heroine in the first performance of Boucicault's *Paul Lafarge*. In 1871 she played Margaret in the *King o' Scots*, Marguerite in *Faust* and Marguerite, and Miss Sterling in *The Clandestine Marriage*, and was the original Ellen Moriarty in Falconer's *Eileen Oge*, June 29, 1871. When Charles Fechter revived *Ruy Blas* at the Adelphi, March 2, 1872, she played the Queen. She played Desdemona with Samuel Phelps at the Princess's on Sept. 28, 1873, and Mrs. Ford in *The Merry Wives of Windsor*, Dec. 19, 1874. She was the original Claire Ffoilliot in *The Shaughraun* at Drury Lane, Sept. 4, 1875, and the heroine of *That Lass o' Lowrie's* at the Opera Comique, Sept. 1, 1877. It may be said that from 1870 she was the most popular actress of the English stage. Other parts in which she was a favorite with the English people were Galatea in *Pygmalion* and Galatea, Princess Zeolide in *The Palace of Truth*, Lady Hilda in *Broken Hearts*, Suzanne in *A Scrap of Paper*, Countess d'Autreval in *The Ladies' Battle*, and Ruth in *Ruth's Romance*. She played Olivia in a successful revival of *Twelfth Night* at the Lyceum, July 8, 1884. In 1888 she was engaged for the Haymarket Theater stock company, and appeared as Maria Leczinska in *The Pompadour*, March 31, and in *Captain Swift*, Sept. 1, as Lady Staunton. She was the Mistress Page in Beerbohm Tree's production of *The Merry Wives of Windsor*, and afterward Mrs. Palfreyman in *Wealth*. When *The Dancing Girl* was produced at the Haymarket, Jan. 15, 1891, she was Lady Bawtre, and thereafter she remained in London, playing *grandes dames*. Her last performance was Lady Beechinnor in *The Manœuvres of Jane*, March 25, 1899.

Leitner, Gottlieb William, Anglo-Indian educator, born in Pesth, Hungary, in 1840; died

in Bonn, Germany, March 22, 1899. He was educated in Constantinople and Brussa, in Mohammedan schools, becoming familiar with the Levant to such an extent that he was appointed chief interpreter to the British commissariat in the Crimean War. He completed his studies in King's College, London, and was appointed Professor of Arabic, Turkish, and Modern Greek in 1859, and in 1861, when the Oriental section of the college was founded, Professor of Arabic and Mohammedan Law. A few years afterward he went to India to take charge of the Government college at Lahore. Later he founded the Punjab University, where Western science was taught in the vernacular for the first time in northern India with the approval of Hindu pandits and Mohammedan mullahs, and with the aid of endowments contributed by the maharajahs and rajahs of the native states. Dr. Leitner also founded many public libraries in India, and published journals in Urdu, Arabic, and English. In 1866 he explored for the Government the countries between Kashmir and Cabul. After returning to Europe he edited for ten years the *Asiatic Quarterly Review*. He founded at Woking the Indian institute for the training of aristocratic young Indians. He was one of the most accomplished of modern linguists, having an acquaintance with about fifty languages, many of which he spoke fluently. Among his published works are *Dardistan*, *The Races of Turkey*, *Philosophical Grammar of Arabic*, and *Sinin ul Islam: The History and Literature of Mohammedanism in their Relations to Universal History*.

Lisbourne, John, English actor, born in Manchester in 1866; died there, July 6, 1899. He was first engaged as a pantomimist, and played Fripps and the Cabman in *Round the Clock*, at Stockton-on-Tees, and in the same play at the Fourteenth Street Theater, New York. During his stay in the United States he was a member of Forepaugh's Circus for several months. On his return to England he took up Irish comedy, and was so successful that he traveled three years in England, Ireland, and Scotland, playing *Widow O'Brien* and *Tommy Cranberry* in *Fun on the Bristol*. His latest successful character was Mrs. Muldoon in the English tours of Muldoon's Picnic, in which he also played Mulcahey. He was especially popular in Dublin and Manchester.

Lloyd, Daniel Lewis, Welsh prelate, born Nov. 23, 1843; died Aug. 4, 1899. He was educated at Oxford, and was curate from 1867 to 1872 of Dolgelly, Merionethshire, Wales, and head master of the grammar school there. His abilities as an educator were already marked when in 1873 he became head master of the Friars' School at Bangor, an institution that had a rapid growth under his rule, which continued until 1878. In that year he went to Christ's College at Brecon as its head master, and he continued in that office till in 1890 he was consecrated Bishop of Bangor. As an educator he made a deep and lasting impression, and stood easily first in that respect among the Welshmen of his time. As a prelate his success was much less marked. He had a strong aversion to controversy, and as the years following his consecration were full of danger to the Welsh establishment, active defense was naturally to be looked for from its four prelates. Bishop Lloyd was incapacitated by temperament from exertion of this kind, and in 1898 he resigned his bishopric. He was a finished Welsh scholar, and his *Emyniadur yr Egllys* is a valued addition to Welsh hynology.

Loizillon, Gen., French soldier, born in Paris in 1820; died in Dammarie-les-Lys, May 4, 1899.

He was educated at St. Cyr and was commissioned an officer of cuirassiers in 1849. He served through the Crimean War, returning as captain. His military career was brilliant, and he was in command of the 1st Army Corps at Lille when, on Jan. 11, 1893, he was made Minister of War. He held the portfolio till Dec. 3.

Lorainé, Henry, English actor, born in London in 1819; died there, July 10, 1899. He made his first appearance in 1840 at Worcester. For years he was a favorite leading man of the Scotch theaters. He then established himself in Liverpool, whence he went to London in 1863, where he made his *début* as Don César de Bazan, at Drury Lane. His fortune was not great in this venture, but Barney Williams, the American actor, obtained him as a leading man for the Broadway Theater, New York. He made his first appearance there as Hamlet, and remained for a season. He then made several prosperous tours of the United States as a Shakespearean star, and returned to England in 1868. In the autumn of that year he again played Don César de Bazan at Drury Lane so successfully that it ran fifty nights. Mr. Lorainé after a time took the management of the Surrey Theater. He was next seen at the Princess's in a series of Shakespearean rôles. He became manager of the Theater Royal, Leeds, and for many years enjoyed prosperity both as an actor and as a business manager. Of late years he has been playing old men in London theaters. His last appearance was as Col. Sapt in the Prisoner of Zenda.

Lundberg, Ada (Margaret Ada Clegg Everard), English actress, born in Bristol in 1850; died in London, Sept. 30, 1899. She made her first appearance in Bristol in 1862, and after several years of stock experience she became noted as a music-hall singer of popular melodies. In 1876 she was very successful in London, and was engaged by the Music Hall Syndicate at a large salary for six years. In 1893 she came to New York city, and for a season was a popular favorite at Koster and Bial's. Her best-known ballads were *My First Young Man*, *Betsy Barlow*, and *Tooral Laddie*. Her last appearance was at the Tivoli, Manchester, in June, 1899.

Mackenzie, John, British administrator, died in Kimberley, March 22, 1899. He went to South Africa in the service of the London Missionary Society, of which he became a very active and energetic member. When the Dutch freebooters in the service of the Bechuana chiefs Massouw and Moshette and the English freebooters in the service of Mankaroane and Montsioa set the border aflame in 1881 and subsequent years, for the purpose of enriching themselves with native lands, Mackenzie was concerned for the chiefs that acknowledged British supremacy, and when the Boer freebooters founded the republics of Stellaland and Goshen he appealed to the British Government and was supported by nonconformist opinion in his protest against the alleged violation of the Keate award by the Transvaal Government. As the result of this agitation, a British protectorate was proclaimed over Bechuana-land in 1884, and Mackenzie was appointed deputy commissioner. He soon found himself at variance with the Cape Government when he attempted to deprive the Dutch farmers of their lands. Cecil Rhodes was consequently sent to replace him; but when he failed to restore order Sir Charles Warren marched into the country in 1885, and after a conflict with Rhodes sent for Mackenzie, whose views in favor of direct imperial control coincided with his own, and they prevailed over those of Sir Hercules Robinson and

Cecil Rhodes, who wished to annex the territory to the Cape, as was done ten years later. In 1889 he went to England to agitate against Sir Hercules Robinson and urge the separation of the offices of Cape governor and high commissioner. He returned to his work as a missionary. He published *Austral Africa* (1885).

Manning, Frank, English actor, born in London in 1861; died there, March 24, 1899. He was the son of a popular English comedian, John Manning. His first appearance was at the age of ten in a pantomime at Sadler's Wells, and he was identified with that line of business for several years in different theaters, and made a success as the drunken cobbler in *The Forty Thieves*. The result was his abandonment of mute rôles and the beginning of great popularity as an eccentric comedian. His principal engagements were a tour in America with the Leopolds as Sammy in *Frivolity*, a season of burlesque at the Theater Royal, Edinburgh, a tour with Wilson Barrett, another with *The Telephone Girl*, and his engagement at the Savoy, London, where he was playing the minister of police in *The Lucky Star* at the time of his fatal illness. His last appearance was March 18, 1899.

Marie Louise, Princess of Bulgaria, born in 1870; died in Sofia, Jan. 31, 1899. She was a daughter of the Duke of Parma, of the house of Bourbon, and married Prince Ferdinand of Bulgaria in 1893. When her husband, in 1896, had their elder son, Boris, admitted into the Greek Orthodox Church in order to save his throne it caused her much unhappiness. She took no great interest in politics, but her kindness and benevolence endeared her to the Bulgarians.

Maris, Jacques, Dutch painter, born in The Hague in 1837; died in Carlsbad, Aug. 8, 1899. He studied under De Keyser and Van Hove, went to Paris, and obtained a high reputation for his landscapes, especially in his own country, where he was acknowledged to be first in his branch. He was also an aquarellist and an engraver.

Mirsky, Dmitri Ivanovich Svatopolk, a Russian soldier, born about 1825; died in Nice in February, 1899. He entered the army at the age of eighteen, took part in all the battles fought with Shamyl, exhibited distinguished bravery, and was twice wounded, and in the Crimean War he was at the head of a regiment. Later, as chief of staff to Prince Bariatsky, he took part in the pacification of the Caucasus. In the war of 1876, as adjutant to the Grand Duke Michael, he took an active part in the capture of the fortress of Kars. His last office was that of Governor General and commandant of troops in Kharkoff.

Marshall, Mrs. Emma (Martin), English historical novelist, born in North Repps Hill House, Norfolk, Sept. 29, 1828; died in Clifton, Bristol, May 4, 1899. She was the youngest daughter of Simon Martin, a banker of Norwich, and in 1854 married Hugh Graham Marshall. Her early married life was passed at Wells, Exeter, and Gloucester, and her interest in the historical associations connected with these cities is strongly reflected in some of her stories. The average merit of her books is high, and their popularity is deservedly great. Properly speaking, they are not so much novels as a series of historical pictures in which there is one central celebrated person about whom are grouped other real personages of lesser note, with still others who are creations of the writer's own brain. The narrative in each case is of interest, the dialogue natural, and the descriptions of events and places worked up with a great deal of literary skill. The best of

them are to be found among those written within the past twenty years, and, in spite of the great number of books put forth by her, no falling off may be noted in comparing her very latest ones with those ten years earlier. While mainly designed for the reading of young people, they are not to be classed among juvenile tales, and in the study of English literature and history they form almost invaluable aids in awakening an interest in the famous people of the past. Such books as *Under Salisbury Spire* (1889), *In Winchester Meads* (1891), and *Penshurst Castle* (1893) might well find a place in the library of every school where English literature and history are taught. A nearly complete list of Mrs. Marshall's books includes *Happy Days at Fernbank* (1861); *Edith Prescott* (1863); *Rainy Days* (1863); *Rose Bryant* (1863); *Helen's Diary, or Thirty Years Ago* (1864); *Katie's Work* (1864); *Consideration* (1864); *Brook Silverstone* (1865); *Roger's Apprenticeship* (1865); *Ida, or Living for Others* (1865); *The Dawn of Life* (1866); *Millicent Legh* (1866); *Grannie's Wardrobe* (1867); *The Old Gateway* (1867); *Theodora's Childhood* (1867); *Daisy Bright* (1868); *Grace Buxton* (1868); *The Little Peat Cutter* (1868); *Violet Douglas* (1868); *Little May's Legacy* (1868); *Brothers and Sisters* (1869); *The Story of the Two Margarets* (1869); *Edward's Wife* (1870); *Primrose, or the Bells of Old Effingham* (1870); *Christabel Kingscote* (1870); *Heights and Valleys* (1871); *Stellafont Abbey* (1871); *Three Little Sisters* (1871); *To-Day and Yesterday* (1871); *Matthew Frost, Carrier* (1872); *Between the Cliffs* (1873); *Mrs. Mainwaring's Journal* (1873); *Nowadays* (1874); *A Lily among Thorns* (1874); *Three Little Brothers* (1875); *Life's Aftermath* (1876); *Joanna's Inheritance* (1876); *Lady Alice, or Two Sides to a Picture* (1877); *Mrs. Haycock's Chronicles* (1877); *A History of France* (1877); *True and Strong* (1878); *Marjory, or the Gift of Peace* (1878); *Job Singleton's Heir* (1878); *A Knight of our Own Day, and Other Verses* (1879); *Framilode Hall, or Honor is Humility* (1879); *A Chip of the Old Block* (1879); *The Rochemonts* (1879); *Ruby and Pearl* (1879); *Royal Law* (1879); *Stories of the Cathedral Cities of England* (1879); *Heather and Harebell* (1880); *Light in the Lily* (1880); *The Birth of the Century, or Eighty Years Ago* (1880); *Memories of Troublous Times* (1880); *A Rose without Thorns* (1880); *A Violet in the Shade* (1880); *Benvenuta* (1881); *Dewdrops and Diamonds* (1881); *Dorothy's Daughters* (1881); *Constantia Carew* (1882); *The Dayspring: A Story of the Time of William Tyndale* (1882); *The Court and the Cottage* (1883); *In Colston's Days: A Story of Old Bristol* (1883); *Little and Good* (1883); *Poppies and Pansies* (1883); *Sir Valentine's Victory* (1883); *Heathercliff* (1884); *Mrs. Willoughby's Octave* (1884); *In the East Country with Sir Thomas Browne* (1884); *My Grandmother's Pictures* (1884); *Silver Chimes* (1884); *The Two Homes* (1884); *Over the Down* (1884); *Cassandra's Casket* (1885); *Michael's Treasures* (1885); *The Mistress of Tayne Court* (1885); *No. XIII, or the Story of the Lost Vestal* (1885); *Salome* (1885); *The Story of the Lost Emerald* (1885); *Under the Mendips* (1885); *A Fight with the Swallow* (1886); *In Four Reigns* (1886); *Life of Our Lord Jesus Christ* (1886); *Rhoda's Reward* (1886); *The Roses of Kingwood* (1886); *The Tower on the Cliff* (1886); *Dandy Jim* (1887); *Daphne's Decision* (1887); *Eaglehurst Towers* (1887); *Miss Matchett's Mistake* (1887); *On the Banks of the Ouse* (1887); *Only a Bunch of Cherries* (1887); *The Story of John*

Marbeck: A Windsor Organist (1887); *Two Swords: A Story of Old Bristol* (1887); *Alma* (1888); *Bishop's Cranworth* (1888); *Bristol Diamonds* (1888); *Dulcibel's Day Dreams* (1888); *Houses on Wheels* (1888); *In the City of Flowers* (1888); *Oliver's Old Pictures* (1888); *Our Own Picture Book* (1888); *The End Crowns All* (1889); *Laurel Crowns* (1889); *Under Salisbury Spire* (1889); *Eventide Light* (1890); *Shakespeare and his Birthplace* (1890); *Winifrede's Journal of her Life at Exeter and Norwich* (1891); *In Winchester Meads* (1891); *Little Queenie* (1892); *Bristol Bells* (1892); *In the Service of Rachel, Lady Russell* (1892); *New Relations* (1893); *Pat's Inheritance* (1893); *Penshurst Castle in the Time of Sir Philip Sidney* (1893); *Nature's Gentlemen* (1893); *The Close of St. Christopher's* (1894); *Kensington Palace in the Days of Queen Mary* (1894); *Lizette and her Mission* (1894); *The Master of the Musicians* (1895); *The White King's Daughter* (1895); *Abigail Templeton* (1896); *By the North Sea, or The Protector's Granddaughter* (1896); *An Escape from the Tower* (1896); *Only Susan* (1896); *Sir Benjamin's Bounty* (1896); *Castle Meadow* (1897); *A Haunt of Ancient Peace* (1897); *Lady Rosalind* (1897); *Up and Down the Pantiles* (1896); *The Two Henriettas; The First Light on Eddystone; Her Season in Bath; Boscombe Chine; In the Choir of Westminster Abbey* (1897); *The Lady of Holt Dene; Better Late than Never* (1898); *Master Martin* (1898); *Under the Laburnums* (1898); and *Under the Dome of St. Paul's* (1898).

Lean, Mrs. Florence (Marryat) (Ross-Church), English novelist, born in Brighton, July 9, 1837; died in London, Oct. 27, 1899. She was a daughter of Capt. Frederick Marryat, the English novelist, and first married Col. Ross-Church, a soldier in the East Indian service, with whom she traveled extensively in India. After his death she became the wife of Col. Francis Lean. From 1872 to 1876 she edited *London Society*, and a few years later she appeared on the stage in lyric and other rôles, achieving her greatest success as *Lady Jane in Patience*. She was also favorably known as a lecturer and elocutionist, and made a tour of the United States in 1884 in original monologues. *Tom Tiddler's Ground* (1896) aims at giving her impressions of America at that time. She was the author of several successful plays, but is best known as a novelist, the entire number of her fictions including 75 titles. A partial list of her novels and collections of tales comprises *Love's Conflict* (London, 1865); *Too Good for Him* (1865); *Woman against Woman* (1865); *For Ever and Ever* (1866); *Confessions of Gerald Estcourt* (1867); *Gup: Sketches of Anglo-Indian Life* (1868); *Nelly Brooke* (1868); *Girls of Feversham* (1869); *Veronique* (1869); *Petronel* (1870); *Her Lord and Master* (1871); *Sybil's Friend* (1873); *No Intentions* (1874); *Open Sesame* (1875); *Fighting the Air* (1875); *My Own Child* (1876); *Her Father's Name* (1876); *Hidden Chains* (1876); *A Harvest of Wild Oats* (1877); *Written in Fire* (1878); *Little Stephen* (1878); *The World against a Lie*, successfully dramatized in England and played also in America as *Della* (1878); *The Root of All Evil* (1879); *The Broken Blossom* (1879); *With Cupid's Eyes* (1880); *Fair-haired Alda* (1880); *My Sister the Actress* (1881); *How they Loved Him* (1882); *Phyllida* (1882); *A Moment of Madness and Other Stories* (1883); *Peers and Player* (1883); *The Heart of Jane Warner* (1885); *The Heir Presumptive* (1885); *The Master Passion* (1886); *Spider's Society* (1886); *A Daughter of the Tropics* (1887);

Driven to Bay (1887); The Crown of Shame (1888); Gentleman and Courtier (1888); Scrapie (1888); The Risen Dead; Parson Jones; There is no Death (1891); How Like a Woman; A Lucky Disappointment and Other Stories (1876); The Poison of Asps and Other Stories (1876). She also published the Life and Letters of Captain Marryat (1872). Her novels have enjoyed wide popularity, and some of them have been translated into the principal European languages; but her writing is ephemeral and aims only at the entertainment of the moment.

Matson, William Tidd, English hymn writer, born in Kingsland, Herefordshire, in 1833; died Dec. 24, 1899. He was ordained in the Congregational ministry in 1858, and the greater part of his ministerial labors were devoted to charges in Hampshire. He obtained wide fame as a writer of popular hymns, and his religious verses appear in 45 different hymnals and religious anthologies. His published volumes comprise *A Summer Evening Reverie* (1857); *Poems* (1858); *Pleasures of the Sanctuary* (1866); *Sacred Lyrics* (1870); *Edderline and Poems* (1880); and *The World Redeemed* (1881).

Metford, William Ellis, English inventor, born in Somersetshire about 1825; died in Bristol. He was educated as a civil engineer, held an appointment on an Indian railroad two years after working under Brunel for a long time, returned to England broken in health, and after his recovery devoted his life to the study of the rifle. He introduced the principle of shallow rifling to prevent all leakage of gas and the use of a bullet of hardened lead, since replaced by the steel-cased bullet. His barrel combined with the Lee breech action was adopted by the British Government, but Enfield has since modified his grooving, making the edges square instead of smoothed, which is rendered necessary by the use of cordite and very hard bullets.

Meyer, Rudolf, German political economist, born in Friedberg, Brandenburg, Dec. 10, 1839; died in Dessau, Jan. 11, 1899. He published books treating of the emancipation of the Fourth Estate, the banks of Germany, socialism in Denmark, the causes of American competition, the international crisis in industry and agriculture, and the agrarian question.

Michie, Sir Archibald, Australian statesman, born in Maida Vale, England, in 1813; died in Melbourne, Victoria, June 22, 1899. He was educated at Westminster School, was called to the bar in 1838, and in 1839 went to Sydney, New South Wales, where he became a law reporter, a successful practitioner, and in 1844 the associate of Robert Lowe in the management of the Atlas newspaper. In 1852 he settled in Melbourne, where he practiced law and acted as correspondent to the London Times. When in 1856 responsible government was given to Victoria he was elected to the Assembly, was Attorney-General in 1857, became Minister of Justice in 1863 in the McCulloch Cabinet, served later under McCulloch as Attorney-General, and in 1873 accepted the office of agent general of Victoria in London, which he filled for six years.

Millocker, Karl, German dramatist, born in Vienna, Austria, May 29, 1842; died there, Dec. 27, 1899. He was graduated at the Vienna Conservatory of Music and became *Kapellmeister* of the Theater of Gratz in 1864. In 1866 he became musical director of the Harmonie Theater in Vienna, and on the closing of that theater went to Peth, where he held a similar post three years. In 1869 he returned to Vienna and became *Kapellmeister* in the Theater an der Wein. He also

edited the *Musikalische Presse*. He was author of the operettas *Der todte Gast*, produced at Gratz in 1865; *Diana*, produced in Vienna in 1866; *Der Regimentstambour*, *Ein Abenteuer in Wien*, *Drei Paar Schuhe*, *Die Musik des Teufels*, and *Das verwunschene Schloss*, produced in Vienna in 1878; *Gräfin Dubarry* (1879); *Die Jungfrau von Belleville* (1881); *Der Bettelstudent* (1882); *Gasparone*, and *Der Feldprediger* (1884); and *Der Vice-Admiral* (1886).

Mitchell, Alexander Ferrier, Scottish clergyman, born in Brechin, Scotland, in 1822; died in St. Andrew's in March, 1899. He was graduated at the University of Saint Andrew's in 1841, and from 1868 to 1894 was Professor of Ecclesiastical History and Divinity there. He published *The Westminster Confession: A Contribution to the Study of its History* (Edinburgh, 1866); *The Wedderburns and their Work* (London, 1867); *The Westminster Assembly: Its History and Standards* (1883); *The Primitive Church* (Edinburgh, 1883); *Union of Scotch Presbyterians* (1886); and *The Catechisms of the Second Reformation* (London, 1887).

Mitchell, Peter, Canadian statesman, born in Newcastle, New Brunswick, Jan. 4, 1824; died in Montreal, Oct. 25, 1899. He studied law and was called to the bar in 1848, but soon left the law to engage in lumbering, shipbuilding, and other business enterprises. In 1856 he was sent to the New Brunswick Legislature, and he remained a member of the Assembly until 1860, when he entered the Legislative Council as a life member. The most important incident in Mr. Mitchell's life was the part he played in bringing about Canadian confederation. When it was proposed to unite only the maritime provinces, he served in 1864 as a delegate to the Charlottetown Conference. Later in the same year he attended the Quebec Conference, which drafted the terms of union. In 1866 he was sent to England as a member of the London Conference on the same subject. There he stood by Sir George Cartier as against Sir John Macdonald on the question of a provincial union instead of a legislative union. In the first general election following the passage of the act of union, New Brunswick rejected the confederation. In the interval before the next election Mr. Mitchell redoubled his efforts in behalf of union, and his masterly speeches were undoubtedly the most important factor in bringing New Brunswick into line with the other provinces. When the confederation was accomplished he was appointed to the Senate of Canada by royal proclamation, and became one of the Government leaders in that body. With the forming of the first Dominion Government he took the portfolio of Marine and Fisheries. That department he organized and administered with ability and success. This was a difficult post, as it involved disputes and negotiations between Canada and the United States over the Bering Sea fisheries. He brought about the Halifax arbitration between Great Britain and the United States, which resulted in the payment of \$5,500,000 to Canada by the United States. Sir Alfred Smith was Minister of Marine and Fisheries when the arbitration was held, but the actual work had been done by Mr. Mitchell. He resigned from the Senate in 1874, and was elected to the House of Commons. He was again elected in 1882, and sat in the Commons until 1891. He was defeated in 1896 by a small vote. He was for a time president of the Mitchell Steamship Company, and he was an active promoter of the Canadian Pacific Railway. He bought the Montreal Herald in 1885. In 1897 he was appointed Inspector of

Fisheries for the Atlantic Provinces. He published *A Review of President Grant's Recent Message to the United States Congress relative to Canadian Fisheries and the Navigation of the St. Lawrence River* (1870) and *Notes of a Holiday Trip* (1880).

Monier-Williams, Sir Monier, English philologist, born in Bombay, Nov. 12, 1819; died in Cannes, France, April 11, 1899. He was a son of the surveyor general of Bombay, and prepared for the Indian civil service, coming out first in his class at Haileybury, then gave up that career in obedience to the wish of his widowed mother after his twin brother had been killed in a border war. Having already studied at Oxford, he returned in 1838, and applied himself to linguistic studies, for which he had shown an early aptitude. He took the scholarship in Sanskrit in 1843, and from 1844 till 1857 was Professor of Sanskrit, Bengali, and Telugu at Haileybury College. In 1860 he was elected Boden Professor of Sanskrit at Oxford. He desired to establish an Indian institute there, and in 1875 and again in 1876 he went to India to seek support for his project, which was finally carried out in 1883. He made another trip to India in that year, having been appointed curator of the institute, to which he presented later his own collection of Oriental books and manuscripts. He published the *Lost Ring*, a translation of the Sanskrit drama *Sakuntala*; an English-Sanskrit dictionary and a Sanskrit-English one that cost him twenty years' work; *Indian Epic Poetry* (1863); *Hinduism* (1877); *Modern India and Indians* (1878); *Religious Thought and Life in India* (1883); *The Holy Bible and the Sacred Books of the East* (1886); *Buddhism* (1890); *Brahmanism* (1891); and *Indian Wisdom* (1893). He was knighted in 1886.

Moore, Daniel, English clergyman, born in Coventry, June 23, 1809; died in London, May 15, 1899. He was educated at Cambridge, and was ordained in the English Church in 1841. From 1841 to 1844 he was in charge of Christ Chapel, Maida Hill, and from 1844 to 1866 was incumbent of Camden Church, Camberwell. In 1866 he became vicar of Paddington, which office he held until 1895. He had been chaplain ordinary to the Queen from 1870, and a prebendary of St. Paul's from 1880. He was one of the most respected of the clergy in London, in which almost his entire life was passed. He was the author of *Daily Devotion* (1847); *The Christian System Vindicated* (2d edition, 1844); *Sermons before Cambridge University* (1845); *Christian Consolation* (1848); *Discourses on the Lord's Prayer* (1852); *Family Duties* (1856); *Golden Lectures* (1857-'61); *Thoughts on Preaching* (1861); *The Divine Authority of the Pentateuch Vindicated* (1863); *The Age and the Gospel* (1864); *Aids to Prayer* (1868); *Sermons on Special Occasions* (1871); *Christ and his Church* (1875); *Sunday Meditations* (1876); *Temptation: Its Nature and Limits* (1876); *The Christian in his Relation to the Church* (1880); *Meditations for Advent* (1884); *Christ in All Ages* (1886); *Thoughts for Church Seasons* (1888); *The Faithful Departed*.

Nicholson, Henry Alleyne, English scientist, born in Penrith, Cumberland, Sept. 11, 1844; died in Aberdeen, Scotland, Jan. 19, 1899. He was educated at the Universities of Göttingen and Edinburgh, and in 1869 was appointed lecturer on natural history in Edinburgh Medical School. In 1871 he became Professor of Natural History and Botany in the University of Toronto, in 1874 Professor of Biology and Natural History in the

College of Physical Science, Durham University, and in 1875 Professor of Natural History in the University of St. Andrew's. In 1877 he was appointed lecturer on geology to the British Museum, and in 1882 became Professor of Natural History at the University of Aberdeen, occupying that chair till his death. His works comprise *Essay on the Geology of Cumberland and Westmoreland* (1868); *A Manual of Zoölogy* (1870); *Syllabus of Lectures on Zoölogy, Geology, and Palæontology* (1870); *Advanced Text-book of Zoölogy* (1870); *Introductory Text-book of Zoölogy* (1871); *Introduction to the Study of Biology* (1872); *Text-book of Geology* (1872); *Examinations in Natural History* (1872); *Monograph of the British Graptolitidæ* (1872); *A Manual of Palæontology* (1872); *Outlines of Natural History for Beginners* (1873); *Report on the Palæontology of the Province of Ontario* (1874-'75); *Report on the Fossil Coals, Sponges, and Polyzoa of the Silurian and Devonian Rocks of Ohio* (1875); *The Nature of Life* (1875); *The Ancient Life History of the Earth* (1877); *Structure and Affinities of the Tabulate Corals of the Palæozoic Period* (1879); *Structure and Affinities of the Genus Monteculipora and its Sub-Genera* (1881); *Synopsis of the Classification of the Animal Kingdom* (1882); *Natural History: Its Rise and Progress in Britain* (1886); *Bibliography of North American Invertebrate Palæontology*, with C. A. White (1878); and *Silurian Fossils of the Girvan District with R. Etheridge* (1879).

Nisbet, John Ferguson, Scottish dramatic critic, born in Lanarkshire, Oct. 28, 1851; died in New Southgate, March 31, 1899. He was for nearly twenty years a writer of special articles for the *London Times*, and in 1882 succeeded Mowbray Morris as dramatic critic on the *Times* staff. He was widely read in dramatic literature, possessed sound judgment, and was the author of plays and a treatise on *The Insanity of Genius*.

Northumberland, Algernon George Percy, Duke of, English statesman, born May 2, 1810; died at Alnwick Castle, Jan. 2, 1899. He was educated at Eton and Cambridge, and was elected to Parliament at the age of twenty-one from a family borough, which was abolished a year later. He served as lieutenant and captain in the guards, and re-entered Parliament after twenty years as Conservative member for the northern division of Northumberland, which he represented till 1865. He impressed the House by his business ability, and became a lord of the Admiralty in 1858, and vice-president of the Board of Trade in 1859. When his father became duke, in 1865, he exchanged his title of Lord Lovaine for that of Earl Percy, and in 1867 he succeeded to the dukedom. He accepted the office of Lord Privy Seal in 1878, and held it till the Government went out in 1880. He was president of the National Institution and of the National Lifeboat Association.

Novara, Signor Franco (Francis Naish), English singer, born in Wiltshire in 1859; died in London, Jan. 7, 1899. When a boy he was a chorister in Salisbury Cathedral, and, having attracted attention on account of his fine voice, was sent to Italy for a musical education. For several years he sang with opera companies in Italy, and in 1880 was engaged by Mr. Mapleson as the principal basso of the Italian opera in London. His first appearance with this company was as *Mephistofele* in *Boito's Faust* at the Academy of Music, New York. He was very successful, and remained with Mapleson, singing the basso rôles in the various engagements of the company in the United States, for two seasons. He then joined the Carl Rosa company in England. He

came again with Mapleson to New York in the season of 1883, and accompanied Patti in her tour of that year. In 1896 he was appointed a Professor of Singing in the Royal Academy of Music, London.

Nubar Pasha, Egyptian statesman, born in Smyrna in 1825; died in Paris, Jan. 14, 1899. He was an Armenian by birth and creed. After studying in Switzerland and France, he betook himself in 1842 to Egypt, where his relative Boghos Bey was minister of Commerce. Through the latter's influence he was appointed reader and interpreter to the Viceroy Mehemet Ali, whose sleepless nights he beguiled by reading books of history. He accompanied Ibrahim Pasha, the heir apparent, on a visit to Constantinople, and during the return voyage he had to exercise great tact and constant vigilance to restrain the already demented prince from ordering the Turkish captain to hang all the Christians of his suite at the yardarm. Nubar won the confidence of Abbas Pasha, who succeeded to the throne in 1850, and when he was sent to London to secure the support of the British Government for the resistance of the Viceroy to the pretensions of the Sultan, his success with Lord Palmerston established his reputation as a diplomatist and led to his appointment as Egyptian agent at Vienna, where he remained till the death of his master, in 1854. Under Said Pasha he conducted the negotiations with the English Government relative to the overland postal route and the railroad across the desert from Cairo to Suez. This was intended by the British to prevent the construction of the Suez Canal, for which Ferdinand de Lesseps had obtained a concession, and as French influence was predominant at court Nubar was dismissed in disgrace for his part in the negotiations. When Ismail Pasha succeeded Said in 1863, the opportunity of the wily Armenian came again. The new Viceroy, ambitious to shine among sovereigns, relied implicitly on this accomplished diplomatist and statesman. When Nubar succeeded in obtaining for Ismail the title of Khedive, and permission to change the order of succession in Egypt from the eldest male of the reigning family, as in Turkey, to the eldest son of the reigning Khedive, as in European monarchies, his ascendancy over Ismail could not be shaken, although as an Armenian and a Christian, an innovator who set at naught Mohammedan traditions and ideas, he antagonized the ruling caste. It was he who removed the objections of the Porte to the piercing of the isthmus, and who conducted to a successful issue the negotiations that led to the arbitration of the Emperor of the French. He was made first a bey, then a pasha, in spite of his religious disabilities, and received a grant of lands. Ismail's dream of founding a great African empire and his gigantic financial schemes for the economic development of Egypt are generally supposed to have been encouraged and fostered, if they were not suggested, by Nubar, who managed the negotiations connected with the Khedive's enormous borrowings and gained great wealth for himself in the process. He was not a sincere believer even in the independence of Egypt, but seems to have been from conviction or interest a partisan or agent for the upbuilding of English influence, even when this was at the lowest ebb, when French ideas were most in favor, and when Ismail Pasha was at the height of his renown as a powerful and progressive ruler and conqueror. At this period Nubar Pasha obtained the consent of the European powers to a revision of the capitulations to the extent of abolishing consular jurisdiction

and creating in the place of consular courts the mixed tribunals for the trial of civil suits between Egyptians and foreigners or between foreigners. The laws for these tribunals, based on the French code, were drawn up under his own directions. Nubar became Minister of Commerce in 1864, and Minister of Foreign Affairs in 1867. When Ismail Pasha, overtaken by financial embarrassments, learned to distrust him thoroughly he had established such a reputation with foreign governments and so ingratiated himself with the creditors of Egypt that he was repeatedly made Prime Minister in alternation with Sherif Pasha. After being dismissed and sent into exile in 1874, he was recalled and placed at the head of the Government in 1878, when Ismail Pasha conceived the idea of introducing representative institutions and an international control of the finances as the last hope of saving his throne and escaping from bankruptcy. In accordance with this plan, the English Government nominated Sir C. Rivers Wilson to be Minister of Finance, and the French Government M. de Blignières to be Minister of Public Works, in the Ministry of which Nubar Pasha was chief. Demonstrations in the street and protests of the *ulemas* against Christians being allowed to rule a Mohammedan country gave Ismail a pretext for soon dismissing first Nubar and then his European colleagues. Ismail appointed a ministry of Egyptians, in which his son and heir, Tewfik, was President of the Council. Nubar then set to work to bring about the downfall of his old master. Through his machinations the German Government, although Germans had no great interests in Egypt, threatened armed intervention to enforce a decree of the mixed tribunal which a foreign creditor had obtained against the Egyptian Government. Ismail Pasha discovered, to his consternation, that in the code sanctioned by the powers in 1873 for those tribunals a peculiar clause was inserted giving the court authority to enforce a judgment against the sovereign state by seizing state property. Great Britain and France, seeking to forestall the action of Germany, brought such pressure upon the Porte that the Sultan, as suzerain, deposed Ismail Pasha and made his son Tewfik Khedive. The dual control was then established, with M. de Blignières as Controller General, and Major Baring as the English representative. Nubar did not return to office until after the defeat of Hicks Pasha's army and the consequent evacuation of the Soudan. He was Prime Minister from 1884 till 1888, when he resigned in consequence of a dispute relating to the reorganization of the Ministry of Finance. In April, 1894, after a long dispute between Abbas Pasha, Tewfik's successor, and Lord Cromer, Nubar was induced to accept the premiership again as a sign of the definite establishment of British domination. In November, 1895, he resigned and returned to his Paris residence.

O'Grady, Hubert, English actor and dramatist, born in Dublin, Ireland, 1841; died in Liverpool, Dec. 19, 1899. He was educated by the Christian Brothers, and when a boy was engaged on account of his fine soprano voice for the choruses of oratorios at the Ancient Concert Rooms, Dublin. He was bound to the trade of upholsterer, but after serving nearly seven years he ran away to Liverpool, began to make his living as a minstrel and music-hall singer, and was very successful. He was engaged by Dion Boucicault for the first provincial tour of *The Shaughraun*, and made his *début* in the leading rôle at the Theater Royal, Edinburgh, Jan. 21, 1876. His success was instantaneous and remarkable, and

in the following season he produced in Stockton his original Irish drama *The Gommoch*, in which he played a droll and interesting Irishman of the Handy Andy sort. He continued playing this part two years, and was regarded as the best representative of such characters on the stage. He played a long starring engagement in Dublin in 1880, during which he produced besides his own play several old favorites. For a year he played in the principal towns of Ireland with much profit. In 1881 he produced his own play, entitled *Eviction*, at the Princess's Theater, Glasgow, with which he had an uninterrupted success for five years, at the end of which time he took his company and scenery to Canada and the United States. On his return to Ireland his play *Eviction* was interdicted by the Government, to the great increase of his favor with the Irish people. He then produced his second great success, *Emigration*, in Glasgow, and played it two years. Famine he produced in Dublin, and played four years in the chief cities of Great Britain without the loss of a single night. His next play was *The Fenian*, which equaled the others in popularity. By this time he had three companies besides his own playing these dramas on the road with great financial support. In 1890 he visited Australia and presented his plays before enthusiastic houses nine months. He then spent a year in travel, and in 1893 produced at the Queen's Theater, Manchester, *The Priest Hunter*, in which he created a character new to the stage. This drama he played two years, when having acquired a fortune he retired in 1896 with the reputation of the best player of Irish character since Boucicault. During his retirement he wrote another play, *A Fast Life*, and for a time returned to the stage to play the leading part.

Paileron, Edouard J. H., French dramatist, born in Paris, Sept. 17, 1834; died there, April 20, 1890. He was a notary's clerk until he began writing for the theater. His short comedy in verse, entitled *Les Parasites*, was produced at the Odéon in 1860. In 1861 he wrote *Le Mur Mitoyen*, a comedy that was very successful. *Le Monde ou l'on s'amuse*, performed at the Gymnase in 1868, was written in a vein of gay satire that appealed to the taste of the Parisian public. It was followed by *Les Faux Ménages*, *L'Autre Motif*, *Hélène*, *Petite Pluie*, *L'Étincelle*, and *L'Âge Ingrat*. In 1881 he made a great hit with *Le Monde ou l'on s'ennuie*, wittily satirizing the ladies of the fashionable world who had taken to philosophy and flocked to hear the lectures of Prof. Caro at the Sorbonne. The play was taken into the repertory of the Comédie Française, and in 1884 its author was elected to the French Academy. *La Souris* was also very successful. His last play of importance was *Cabotins*, produced at the Théâtre Française in 1894, a satire on the Bohemian tendencies of society. His *Amours et Haines*, a collection of verse, appeared in 1888.

Pennington, Arthur Robert, English clergyman, born in 1814; died at Utterby, July 19, 1899. He was graduated at Cambridge in 1838, and was ordained in the English Church in the same year. After serving as curate at St. Peter's, Colchester; St. James's, Walthamstow; and St. Dunstan's-in-the-East, London, he became vicar of Utterby, near Louth, in 1845, and held this living until his death. From 1882 he was a prebendary of Lincoln Cathedral. He was the author of *Carisbrooke Castle* (London, 1853), a book of verse; *Henri Arnaud: A Poem* (1862); *The Agency of God in the History of the Reformation* (1869); *The Life and Character of Eras-*

mus (1874), a scholarly, painstaking work; *Epochs of the Papacy to the Death of Pius IX* (1881); *John Wyclif: His Life, Times, and Teaching* (1884); *Preludes to the Reformation: From Dawn to Dark in Europe* (1886); *Recollections of Persons and Events* (1895); *The Papal Conclaves* (1897); and *The Counter-Reformation in Europe* (1899).

Penzance, James Plaisted Wilde, Lord, English jurist, born in London, July 12, 1816; died in Godalming, Dec. 9, 1899. He was educated at Cambridge, was called to the bar in 1839, and obtained a good practice. He became a Queen's counsel in 1855, was appointed counsel for the duchy of Lancaster in 1859, and in 1860 was made a judge of the Court of Exchequer. In 1863 Sir James Wilde succeeded Sir Cresswell Cresswell as judge of the Court of Probate and Divorce, but he resigned in 1872 under the excessive strain of his duties, having been raised to the peerage in 1869. After the passage of the public worship regulation act Lord Penzance was appointed judge to administer it, and also dean of arches and judge of the courts of Canterbury and York. The case of the Rev. Mr. Mackonochie was brought before him, and that of the Rev. Arthur Toth he entertained until inhibited for want of jurisdiction. In the *Ridsdale, Dale, Enraght*, and *Green* cases his decisions were approved by the Privy Council of the House of Lords. His suspension of Mr. Mackonochie from ecclesiastical functions for contumacy in continuing ritualistic observances in defiance of judicial injunctions was sustained by the House of Lords, and the attempt of Chief-Justice Cockburn to arrogate to the Queen's Bench the power of overruling the ecclesiastical court was disapproved.

Piccolomini, Maria, Italian singer, born in Sienna in 1834; died in Florence, Dec. 25, 1899. She was a descendant of the famous Tuscan family. She studied under Mazzarelli and Pietro Romani in Florence, and made her *début* at La Pergola as *Lucrezia Borgia* in 1852. She was the original *Violetta* in *La Traviata* in Turin and Paris. Her ability as an actress more than as a singer made her a great favorite with Italian, French, and English audiences. Her London *début* was at Her Majesty's Theater as *Violetta*, May 24, 1856. In 1860 she came to New York and repeated her European triumphs at the old Academy of Music. She was for two years the most popular prima donna of the Italian opera in this country. She returned to London in 1860, where after a series of successes she married the Marquis Gaetani della Forgia in the same year and retired from public life. Her best rôles were *Violetta*, *Norma*, *Maria* in *La Figlia del Regimento*, *Adina* in *The Elixir of Love*, and *Zerlina*. She returned to the stage in 1863 for four performances in London, and made her last appearance in April of that year as *Almina* in a new opera of that name.

Polko, Elise, German novelist, born in 1822; died May 15, 1899. She was the daughter of an eminent educator and sister of Eduard Vogel, the African explorer. In her youth she was well known as a public singer, but after her marriage she retired from the stage and devoted herself to writing novels and sketches in which music and musicians are usually prominent. Her *Musikalische Märchen*, printed in 1852, was translated into English, as were several of her later works.

Ponisi, Madame (Elizabeth Ponisi Wallis), English actress, born in Huddersfield, England, Dec. 18, 1818; died in Washington, D. C., Feb. 13, 1899. She made her first appearance in 1838 at Barnard Castle, England, in a farce called *Mr.*

and Mrs. Pringle. She had previously married James Ponisi, an actor of the company, which was very poor and used to make its way on foot from town to town. For twelve years she continued in the provinces, rising slowly into recognition until she attracted the attention of Mr. Macready, whom she supported for a week as leading lady of the theater at Newcastle-on-Tyne. Her first appearance in London was at the Surrey Theater, Dec. 26, 1848. She soon became the leading lady of that house, and remained there until 1850, when she came to the United States and made her American *début* at the Walnut Street Theater, Philadelphia, Oct. 7, as Mariana in Sheridan Knowles's *The Wife*. She played seven parts in her first week. She was transferred to the old Broadway Theater, where she made her first appearance, Nov. 11, 1850, as Lady Teazle. She was the leading woman of that theater until its removal in 1859. She played at Niblo's Garden as Zanine in *The Cataract of the Ganges* in December, 1853, and as Oberon in February, 1854. Edwin Forrest declared her Lady Macbeth the best on the stage. Her last part at the Broadway was Cleopatra in *Antony and Cleopatra*. In October, 1859, Dion Boucicault, who had written the part of Mrs. Cregan in the *Colleen Bawn* especially for her, engaged her for the production of that play at Laura Keane's Theater. The great success of the play kept her for a long time in that part. She then joined Edwin Forrest as the leading woman of his plays for several tours. She was the original Pompadour in *Narcisse* at Niblo's in 1863. In 1870 she played the Duchess with Fechter in *The Duke's Motto* at Niblo's, and she was the leading woman of that theater in the season of 1870-71. In 1871 Mme. Ponisi was engaged for Lester Wallack's stock company as the representative of the *grandes dames* of its great repertory, and she retained that place until the death of Mr. Wallack ended the organization. To enumerate the rôles played by Mme. Ponisi in the course of the years she passed in the Wallack company would be to make a history of Wallack's Theater for a quarter of a century. After the Wallack company closed its career Mme. Ponisi played with Mrs. Potter in *Twixt Axe and Crown* for a short time at Wallack's (Thirtieth Street), and only occasionally thereafter in New York. Her last appearance was at the Academy of Music, New York, April 6, 1893. She was divorced from her first husband in 1855, and married Samuel Wallis, Feb. 10, 1858.

Possiet, Constantin Nicolavich, Russian admiral, born in 1819; died in St. Petersburg, May 8, 1899. He entered the navy at an early age, gained a reputation by his treatises on gunnery, and was the inventor of improvements in naval ordnance that enabled the fleet to co-operate with the army in the conquest of the mountaineers in the Caucasus, whose strongholds were on the coasts of the Black Sea. He was governor of the Grand Duke Alexis (now commander in chief of the navy) from 1858 till 1874, and then Minister of Ways of Communication till 1888, and the originator in that office of extensive improvements in the harbors and water ways of the empire. An accident to the train on which the Czar was riding occasioned his retirement. As president of the Russian association for saving life at sea and on internal waters he initiated the establishment of most of the lifeboat stations. For the last ten years of his life he was a member of the Council of State.

Price, Sir Rose Lambert, English author, born in Trengwainton, Cornwall, July 26, 1837; died in Pontyclun, Wales, April 17, 1899. He

served in the English army in India during the mutiny in 1857, and later in China, retiring in 1874 with the rank of major. In 1876 he published *The Two Americas: An Account of Sport and Travel, with Notes on Men and Manners*, which was deservedly popular.

Reichberg, Bernhard, Austrian statesman, born in Ratisbon in 1806; died Feb. 27, 1899. He was *attaché* to the legations in Berlin, London, and Brussels, then minister at Stockholm, and afterward at Rio de Janeiro. In 1847 he was appointed Austrian minister to the Germanic Confederation, and in this capacity he presided over the federal Diet at Frankfort. In 1859 he was called into the Cabinet as Minister of Foreign Affairs while the Italian war was in progress. The heavy task of treating for peace at Villafranca and at Zurich thus fell to him. He had also to direct the long negotiations relating to the Schleswig-Holstein question, which ended only in a war with Prussia, but he was forced to resign before the war came, and the Austrian army was defeated.

Reynolds, Joseph Williams, English clergyman, born in 1821; died in January, 1899. He was trained for business life, but entered the Church and was ordained to the curacy of St. Peter's, Belper, in 1849. In 1854 he was appointed principal of the Operative Jewish Converts' Institution. In 1859 he became the incumbent of St. Stephen's, Spitalfields, London, and subsequently rector of St. Anne's and St. Agnes's, London, from 1882. He was a prebendary of St. Paul's from 1880. He published *The Miracles of Our Lord and Saviour* (London, 1865); *The Supernatural in Nature* (1878); *The Mystery of Miracles* (1881); *My Growth in the Divine Life* (1883); *The Mystery of the Universe* (1884); and *The World to Come: Immortality a Physical Fact* (1888).

Rhea, Mademoiselle (Mlle. Hortense Barbe-Loret), Belgian actress, born in Brussels, Sept. 4, 1844; died in Montmorency, France, May 5, 1899. She was the daughter of a wealthy organ builder, who died while she was a child, and was soon followed by his wife. She was educated under the care of guardians in the Ursuline Convent in Paris, and began to study for the stage soon after leaving school. Her *début* was made at the Théâtre de la Monnaie, Brussels, in *Les Doigts de Fée*. After a season she was engaged as leading young woman of the Théâtre Française, Rouen, where she played for another season, and went to Paris, playing with success at the Vaudeville, and subsequently making a tour of France. She went on a tour in Russia in the early seventies, and after a successful engagement in St. Petersburg was engaged as leading actress of the Imperial Theater there, in which she began in 1876 a very prosperous career which lasted five years. On the assassination of the Emperor Alexander II, March 13, 1881, the Imperial company was disbanded and Rhea went to England. She placed herself under the tutelage of John Ryder, and after one month's study made her *début* as Beatrice in *Much Ado about Nothing* at the Gaiety Theater, London. Harry Sargent engaged her for a tour of the American cities. Her first appearance in the United States was at the Park Theater, Brooklyn, as Camille, Nov. 14, 1881. She was not very successful at first, principally on account of the difficulty with which she spoke English, but after a somewhat disappointing tour she entered into an engagement in 1882 with Arthur B. Chase, under whose direction she made several tours that were profitable. Her repertory consisted of Adrienne Lecouvreur, Camille, Pygma-

lion and Galatea, The Country Girl, A Dangerous Game, The School for Scandal, Frou-Frou, and L'Aventuriere. She was the first actress to present in English a play on the subject of Napoleon, and it is said that her success in this particular had much to do with the renewed interest in him in the United States. Josephine, Empress of the French, adapted by William Harris, was first presented by Rhea at Buffalo, Sept. 2, 1882. This play afforded her the best opportunities of her career, and she played it almost continuously until about two years before her death. She played occasionally during that time The New Magdalen, The Lady of Lyons, The Queen of Sheba, and Nell Gwynn. Her last performance was in Hagerstown, Md., April 2, 1898.

Righton, Edward Corrie, English actor, born in London in October, 1838; died there, Jan. 1, 1899. He was the son of Thomas Collins Righton, an artist. When fifteen years old he went on the stage at Sadler's Wells Theater, and for several seasons he played small parts. For a few years he gave monologue entertainments in England and the United States, and in 1871 he assumed the management of The Court Theater, London. For two years of his management he played with success low comedy parts in a great number of new plays. He subsequently appeared in many of the London theaters, and was very successful as Dogberry in *Much Ado about Nothing*, Tony Lumpkin in *She Stoops to Conquer*, Bob Acres in *The Rivals*, and Touchstone in *As You Like It*. During the season 1877-'78 he managed the Globe Theater, London, and produced the successful plays *Stolen Kisses* and *Dearer than Life*. Until 1881 he played with his own company in the provinces, and in that year returned to London to play Mr. Parmenter Blake in *Pinero's Imprudencence*. In 1887 he became a member of the Conway-Farren company. In Beerbohm Tree's production of *The Merry Wives of Windsor*, Sept. 13, 1888, he played Parson Evans. In the Lyceum production of *The Dead Heart*, September, 1889, he played Toupet the Barber. Oct. 16, 1890, he was again with Mr. Tree at the Crystal Palace, playing Moses in *The School for Scandal*. He contributed poems to periodicals and wrote a play called *Insurance Money*. His pen name was Corrie Burns. His last appearance was May 24, 1899, when he recited his own poem *Just what I was when a Boy* at a hospital benefit.

Ristich, Jovan, Servian statesman, born in Kragujevatz in 1831; died Sept. 4, 1899. He studied in Berlin, Heidelberg, and Paris, and on his return to Servia became a clerk in the Ministry of the Interior, rose to the head of his department, and was sent by Prince Milosh in 1860 on a mission to Constantinople. He was diplomatic agent there in 1862 when the Turkish garrison in Belgrade bombarded the town, and conducted the negotiations that resulted in 1867 in the evacuation by the Turks of all the Servian fortresses. This success made him so popular that Prince Michael appointed him Prime Minister and Minister of Foreign Affairs in a Conservative Cabinet, although he was a Liberal. His speedy resignation increased his popularity, and after the Prince's assassination in 1868 he was appointed regent, with Blaznavatz and Gavrilovich as co-regents, until Prince Milan should attain his majority. He was the leading spirit of the regency, especially after the death of Blaznavatz, and was the chief author of the Constitution of 1869, which was replaced in 1888 by a Radical Constitution, and then put in force again in 1864 by King Alexander after his *coup d'état*.

He obtained from the Sultan Abdul Aziz a recognition of the hereditary rights of the Obrenovich dynasty, thus paving the way for the subsequent recognition of Servian independence. His Austrophil policy made the friends of Russia his enemies and caused an estrangement between Servia and Montenegro. Consequently he resigned the post of Prime Minister when Prince Milan reached his majority in 1872. He came into power again in 1876, was at the head of the Government during the war with Turkey, and in 1878 was sent as the Servian representative to the Congress at Berlin. The incorporation in Servia of the districts of Nish, Vranja, and Pirot, and the final recognition of Servian independence were gratifying to the Servians, but they and the Montenegrins were equally disappointed when Austria was allowed to occupy Bosnia and Herzegovina. He adopted a hostile attitude toward Austria after his return, leaning upon Russia, and broke off negotiations with the dual monarchy for a commercial treaty. Austrian influence compelled him in 1880 to resign his offices of Prime Minister and Minister of Foreign Affairs, and he remained out till 1887, when he was the head of a short-lived Liberal Cabinet. As such he carried through a revision of the Constitution of 1869. When King Milan abdicated in 1889 Ristich became a member of the regency appointed to conduct affairs during the minority of Prince Alexander. He took the side of the ex-King in his conflict with Queen Natalie, whom he forcibly expelled from Servia. In 1893 the young King dismissed his regents and declared himself of age. Ristich was out of favor until 1896, when he was once more called upon to form a ministry, having been chosen leader of the Liberal party in 1895 as the man best fitted to cope with the difficulties of the Balkan situation at that critical time. He retired after a brief tenure of office. He was a good linguist and the author of two volumes on Servian life and literature, written in German when he was a young man; also of papers on Servian history, the result of investigations in the Paris archives. He lived sumptuously in a Belgrade mansion, having accumulated a fortune.

Rittner, Eduard, Austrian statesman, born in Bursztyn, Galicia, in 1845; died in September, 1899. He was Professor of Canon Law and afterward rector of the University of Lemberg, taking little part in politics until he was called in 1895 to the Ministry of Public Instruction in the Kielmansegg Cabinet. In the Cabinet of Count Badeni he was retained as a representative of Galicia, but without a portfolio. He was a Deputy for Galicia in the Reichsrath and a member of the Galician Diet.

Roberts, Sir Randal Howland, English actor and author, born in the County Cork, Ireland, March 28, 1837; died in Clapham, England, Oct. 3, 1899. He was the fourth baronet of his succession, a retired captain of the 33d Regiment of the British army. He served in the Crimean War and the Indian mutiny. When the Franco-Prussian War broke out in 1870 he went to the Continent as war correspondent, with the Prussian forces, of the London Telegraph. His *début* both as an actor and as a dramatist occurred at the Olympic Theater, London, May 15, 1876, in his own comedietta *Under a Veil*. He became a favorite player of light, genteel comedy parts. He was a member of the company of the Olympic Theater for a season, and was subsequently in the United States one season. He wrote short plays of considerable merit, and was also author of popular military and sporting novels and histories. His best-known works are *Riverside*, or the

Trout and the Grayling, a novel (London, 1866); Glenmahra, or the Western Highlands (1870); Modern War, or the Campaign of the First Prussian Army (1870); In the Shires (1887); The Silver Trout, and Other Stories (1887); and Curb and Snaffle, a novel (1888).

Rochebouet, Gen., French soldier and statesman, born in Angers in 1813; died in February, 1899. He took part in the Crimean War and in the Italian campaign. In the Franco-German War he commanded the artillery in the Army of the Rhine, with which he was made prisoner at Metz. Marshal MacMahon chose Gen. Rochebouet to form the Cabinet that succeeded the Broglie-Fourtou Cabinet in November, 1877. He held the portfolio of Minister of War, and when he confronted the Deputies as President of the Council they passed an order of the day declaring that the Chamber refused to enter into relations with him because it saw in the constitution of his Cabinet the negation of parliamentary principles. The Chamber was dissolved, but fresh elections resulted in the return of the 363 Opposition members. The Rochebouet Cabinet therefore disappeared on Dec. 14, giving place to the Dufaure Cabinet, and thus was ended the political crisis begun on May 16, 1877.

Romero, Matias, Mexican diplomatist, born in Oaxaca, Feb. 24, 1837; died in Washington, D. C., Jan. 1, 1899. He was appointed secretary of the Mexican legation in Washington in 1859, and acted as *chargé d'affaires* till 1863, then left for home and in a short time returned as minister. He occupied this post till 1868, and negotiated the treaties consequent upon the fall of the Emperor Maximilian. In 1884 he was again appointed minister at Washington, and he occupied the post till his death.

Ronsbey, Arthur, English singer, born in Yorkshire in 1852; died at sea, Oct. 29, 1899. He ran away from home and joined a traveling company at the age of seventeen, but soon afterward, with the consent of his parents, devoted himself to the study of music. He was engaged by Gilbert and Sullivan for the first production of *The Sorcerer* in March, 1878, was the original Sir Marmaduke Pointdextre, and continued as a principal singer with the Gilbert and Sullivan productions until 1884. In 1879 he played Dick Deadeye in *Pinafore*, and subsequently Captain Corcoran. His next and probably most original creation was Grosvenor in *Patience*. He played this part many months in London, until sent by Mr. D'Oyly Carte to America for a restful change. His first appearance in New York in the autumn of 1883 was as Derrick in *Planquette's Rip Van Winkle*. His next part was Strephon in *Iolanthe*. After a short season in New York and Philadelphia he was recalled to London to resume his presentation of Grosvenor. After singing that part in various cities for a year, he obtained his release. He then entered English grand opera at Covent Garden, and made a profound sensation by his singing of Wolfe the Blacksmith in *The Pied Piper of Hamelin*. He played also Valentine and Count di Luna, and was engaged by Mr. Gye for the grand Italian opera for four years. The death of the Duke of Albany prevented the carrying out of this contract, and Mr. Ronsbey, after singing in several concert tours, organized his own English opera company in 1887. In this venture he was very fortunate, and he continued financially and artistically successful to the time of his death. He was the first to produce *Cavalleria Rusticana*, *Gli Pagliacci*, and *Pellegrini's Mercedes* in English. He had just completed a tour of South Africa, and was returning with

his company to England when suddenly stricken with fatal illness.

Saint-Germain (François-Victor-Arthur Gilles de Saint-Germain), French actor, born in Paris, Jan. 12, 1823; died there, July 16, 1899. He was schooled to follow his father's profession of architect, but his family suffered misfortune, and he became a bookseller's assistant. He made the acquaintance of Michel Masson, an actor, and a strong friendship began, which resulted in his entering the Conservatoire. There he was a pupil of Provost and a comrade of Got and Delaunay. He took the first prize for comedy, Aug. 5, 1852, and went with Provost on a playing tour. His *début* was made at the Odéon, Paris, Sept. 17, 1853, as Pasquin in *Jeu de l'Amour et du Hasard*. He originated there Torny in *Mauprat*, Antoine in *Conquête de Ma Femme*, Alexandre in *Que Dira le Monde?* and Crispin in *Dernier Crispin*. On July 1, 1854, he became a *pensionnaire* of the Comédie Française, and made his *début* at the Théâtre Française, as René in *Depit Amoureux*. His position became irksome to him in 1859, and he resigned, although upon the point of becoming a *sociétaire*. He went then to the vaudeville, where he remained in the performance of important rôles for sixteen years. Thence he went to the Gymnase, where he played nine years, and appeared occasionally at the Ambigu and the Palais Royal. He was always regarded as one of the best character actors on the French stage.

Saunders, Charlotte, English actress, born in London in 1826; died in Kettering, Northamptonshire, March 31, 1899. She made her *début* in May, 1833, at Wakefield, Yorkshire, in the rôle of Duke of York in *Richard III*. After acting children's parts for several years, she received great credit for her performance of Tillie Slowboy at the opening of the Theater Royal, Manchester, in January, 1846. She forthwith became a favorite soubrette of the Liverpool circuit, and went to London in August, 1849, where she made a very favorable impression as Mopsa in *A Winter's Tale*. In October, 1849, she played with Alfred Wigan in *The First Night at the Princess's Theater*, and in December, 1851, was the original Chang in Francis Talfourd's burlesque *The Willow-Pattern Plate* at the Strand Theater. In 1852 she went to Dublin, where she became the rage, and remained a great favorite, reproducing all the comedy successes of Mme Vestris and the Planché burlesques. In December, 1858, she returned to the Strand Theater, where she played the leading parts in all the successful burlesques of Henry J. Byron and other popular dramatists. She was of the original cast of Falconer's *Nature above Art* at Drury Lane, September, 1863, and in December, 1864, originated the part of Hercules in Brough's *Hercules and Omphale* at St. James's Theater. She was the original Bob Buckskin, the jockey in Boucicault's *Flying Scud*, at the Holborn Theater, Oct. 6, 1866, and played the part during its long run there and its revival in 1868. She played the original parts Billie Taylor in Burnand's *Billie Taylor*, Lord Ronald in Claude Duval, Tiddy Dragglethorpe in *Lost in London*, Ganymede in *Ixion*, and many characters in standard drama. In 1884 she retired.

Sarcey, Francisque, French critic, born in Dourdan, Oct. 8, 1828; died in Paris, May 18, 1899. He won the first honor at the Charlemagne Lyceum, and was fifth in his class in the École Normale. For several years he filled a professorship conscientiously, and then joined the staff of *Figaro*, attracting attention by his first article. He became a writer also for the *Opinion Nationale*, in which he began his career as a dramatic

critic. At the time of the political crisis of 1877 he contributed to the *XIX^e Siècle* a series of anticlerical articles that had a great effect on public opinion. He wrote philosophical reflections for *L'Illustration*, which were printed in a little volume called *Le Mot et la Chose*. Nearly all the literary journals and reviews had articles of his, either signed with his own name or with the pen name *Sganarelle*. He was one of the most successful of lecturers also, but his originality, his energy, and his influence found their main field of action in the domain of theatrical criticism, where he became involved in many an acrid dispute, as with the admirers of Victor Hugo, with Beeque, with Zola, or with Coquelin and other players. He wrote a little piece called *Les Millions de la Mansarde*, which was signed by Edmond About, and after that he made no further essay as a dramatist, fearing lest the author's self-love might pervert his critical powers. A like apprehension caused him to refrain from seeking a *fauteuil* in the Academy, as this would necessitate his soliciting the votes of persons whose works he had to criticise. Francisque Sarcey published numerous volumes, notably *Étienne Moret*, containing souvenirs of the *École Normale*, *La Siège de Paris*, and *Comédiens et Comédiennes*.

Schönborn, Franz Carl Erwin Paul, Austrian prelate, born in Prague, Jan. 24, 1844; died in Falkenau, June 25, 1899. He was the third of the Counts Schönborn whose family has for generations held the episcopal sees of Prague, Mainz, and Olmütz. In early life he was a cuirassier officer, and in 1866 at Königgrätz he distinguished himself by leading his men through a Prussian regiment. Studying theology later at Rome and at Innsbruck, he became Bishop of Budweiss in 1883, and in 1887 Primate of Bohemia. He was the confessor and confidant of the Emperor, and in 1889 was made a cardinal.

Shanly, Walter, civil engineer, born in the County Queens, Ireland, Oct. 11, 1819; died in Montreal, Canada, Dec. 17, 1899. His father, the late James Shanly, a member of the Irish bar, settled in the county of Middlesex, province of Ontario, in 1836. He was educated by private tuition, and adopted the profession of a civil engineer. He was early employed by the Government of Canada on the works of the Beauharnois and Welland Canals; was engaged on railway works in the United States in 1848-'50, and was engineer of the Ottawa and Prescott Railway in 1850-'53. He was engineer of the western division of the Grand Trunk Railway, 1851-'59; engineer on the Ottawa and French River Navigation surveys, 1856-'58; and general manager of the Grand Trunk Railway, 1858-'62. His most important work as a railway constructor was the Hoosac Tunnel, in Massachusetts, which he successfully constructed in conjunction with his brother Francis in 1869-'75, after several American contractors had failed. He sat in the old Parliament of Canada from 1863 to the union in 1867. When confederation was accomplished he sat in the Dominion House of Commons during the whole of the first Parliament and two others.

Simson, Martin Eduard von, German statesman, born in Königsberg in 1810; died in Berlin, May 3, 1899. He became Professor of Law at Königsberg in 1833, at the same time following his career in the judiciary, was elected to the National Assembly in 1848, and was made first secretary, then vice-president, and finally president, of that body. He declined to be re-elected as president in 1849, when Wilhelm IV of Prussia refused the proffered imperial Crown, and ac-

cepted a seat in the Prussian Chamber of Deputies. He was president of the Erfurt Parliament in 1850, and when it broke down he retired until he entered the Prussian Chamber again when the new era began and was elected its president in 1861. He had stood out for the principles of moderate Liberalism, equally opposed to the advanced theories of Young Germany and the reactionary policy of Prussian Conservatism. He was elected president of the Constituent Assembly, and was president of the North German Diet, of the Zoll Parliament, and of the German Reichstag when they were successively constituted. On Dec. 18, 1870, Friedrich Wilhelm IV accepted the tender that he made in the name of the North German Reichstag of the imperial Crown. Von Simson resigned the presidency of the Reichstag in 1874, and in 1877 his seat. He presided over the Supreme Court of the empire till 1891.

Skene, Felicia Mary Frances, English philanthropist and novelist, born in Aix, Provence, May 23, 1821; died in Oxford, England, Oct. 6, 1899. She was the youngest daughter of James Skene of Rubislaw, a noted traveler. Much of her early life was spent abroad, but in 1844 she returned to England, and nearly all her after life was passed in Oxford. When that city was visited by a cholera epidemic in 1854 Miss Skene organized a band of nurses, some of whom she dispatched to Miss Florence Nightingale at Scutari after the opening of the Crimean War. Later she engaged in rescue work, and from 1878 until her death she visited the Oxford jail week by week. She was the author of *Hidden Depths*, a story of rescue work (1866), and other books.

Strauss, Johann, Austrian composer, born in Vienna, Oct. 25, 1825; died there, June 3, 1899. His father, who was the originator of waltz music, had a poor idea of his son's talents in the same vein, though he had composed waltzes from the age of six, and determined to make a business man of him. His mother, however, helped him to obtain the necessary instruction, and before he was eighteen years old he organized and conducted an orchestra and at once captivated the Vienna public with waltzes and polkas of his own composing. After his fame was established he made tours through Great Britain, the United States, France, Russia, and Germany. For ten successive summers he gave concerts in St. Petersburg, besides taking his orchestra frequently to London, Paris, Berlin, and America. In 1872 he took part in Gilmore's Peace Jubilee in Boston. After composing dance music for many years, he tried his hand at an operetta, *Indigo*, which was produced in 1871, and met with instantaneous success, impelling him to give up his office as conductor of the court balls in order to devote himself to this new field. He relinquished later the conductorship of his orchestra, one of the most perfectly trained in the world, into the hands of his youngest brother, Eduard. His *Fledermaus* (1874) became popular in every musical city. His *Ritter Pasman*, brought out in 1892, was a serious opera, and was not well received. His comic opera *Simplicimus* (1887) had also little success. The operettas that became popular not only in Austria but in other countries include *Cagliostro*, *The Forty Thieves*, *Carnival in Rome*, *Prince Methusalem*, *The Tzigane*, *The Queen's Lace Handkerchief*, *The Merry War*, *A Night in Venice*, and *The Gipsy Baron*. Some of his best-known waltzes are the *Beautiful Blue Danube*; *Wine, Women, and Song*; *Roses from the South*; *Thousand and One Nights*; *Künstlerleben*; *Wiener Blut*; and *Morgenblätter*. He wrote 500 waltzes.

Swanwick, Anna, English author, born in Liverpool in 1813; died in Tunbridge Wells, Nov. 2, 1890. She went to Berlin in 1839, and obtained a familiar acquaintance of the German language and literature, and of Greek also, and some knowledge of Hebrew. After returning to England in 1843 she made notable translations and published several original books. She was one of the early and zealous promoters of the higher education of women in England, and gave a part of her time to teaching young working men and women.

Thorne, Sir Richard Thorne, English physician, born in Leamington, Oct. 13, 1841; died in London in December, 1899. He was educated at St. Bartholomew's Hospital, London, and at London University, and was knighted in 1897. His professional writings include *Use and Influence of Hospitals for Infectious Diseases* (1882); *Progress of Preventive Medicine during the Victorian Era* (1887); *Natural History and Prevention of Diphtheria* (1891); and *Administrative Control of Tuberculosis* (1898).

Thorne, Sarah, English actress, born in Chatham in 1837; died there, Feb. 27, 1899. She was a daughter of Richard Samuel Thorne, manager of the Pavilion Theater, London, in 1849, in which year she appeared as a child in pantomime. Her first speaking part was *Little Pickle* in *The Spoiled Child*, her next was the hero in *E. G. Burton's Warrior Boy*. Her success in this play caused the production of another by the same author, *The Blind Child of Africa*. She was then sent to school for a few years, and on her return to the stage was engaged at the Surrey Theater, and appeared as *Zamora* in *The Honeymoon*. She took a leading place at the Britannia Theater, London, and was a favorite there for a year. She then went to the Theater Royal, Dublin, where for three years she played everything from Shakespearean heroines to the women of the farces, and supported a great number of leading actors. After passing a season each in Glasgow and Brighton she joined Mr. Creswick in a joint starring season at the Standard Theater, Shoreditch. She became soon afterward the lessee of the Theater Royal, Margate, and was such at the time of her death. She was one of the first to travel through England with her own supporting company, and for many years she played a greatly varied round of characters in profitable tours. Her last performance was in September, 1898, as *Parthenia* in *Ingomar*. She married Edmund McKnight, a journalist.

Tissandier, Gaston, French scientist, born in Paris, Nov. 21, 1843; died there, Sept. 6, 1899. He had a scientific education, applying himself especially to chemistry and physics, and with his brother Albert devoted his attention to aerostatics, making 44 balloon ascensions, one of them 8,600 metres high. He wrote numerous popular works on chemistry, photography, and aerostatics, and from 1873 was editor of *La Nature*.

Traill, Mrs. Catherine Parr (Strickland), Canadian author, born in London, England, Jan. 9, 1802; died in Lakefield, Ontario, in August, 1899. She was a sister of Agnes Strickland, the historical writer. All the five Strickland sisters achieved literary distinction, but Mrs. Traill was the first to write, and her success induced her other sisters to undertake literary work. In 1832 she married Lieut. Traill, and immediately went to Canada with him, where they settled near Rice lake. She was the author of *The Backwoods of Canada* (London, 1835); *Canadian Crusoes* (1852); *Ramblings in the Canadian Forest* (1854); *The Female Emigrant's Guide* (To-

ronto, 1855); *Canadian Settler's Guide* (seventh edition, 1857); *Stories of the Canadian Forest* (New York, 1856); *Lady Mary and her Nurse, or a Peep into Canadian Forests* (London, 1856); *Afar in the Forest* (1869); *Studies of Plant Life* (Ottawa, 1884); and other books.

Wakeman, Henry Olney, English author, born Sept. 25, 1852; died in May, 1899. He was educated at Oxford, was called to the bar in 1877, and was modern history lecturer and tutor at Keble College, Oxford, from 1881. He was the author of *The History of Religion in England* (1885); *What has Christianity done for England?* (1886); *The Church and the Puritans* (1887); *Life of Charles James Fox*; *The Ascendancy of France*; and *Introduction to the History of the Church of England*.

Waller, Mrs. Emma, English actress, born in London in 1819; died in New York city, Feb. 28, 1899. Her wealthy parents educated her for the operatic stage, but she turned her attention to the drama and began with an English provincial company in 1848. In 1849 she married Daniel Wilmarth Waller, an American actor. In 1851, with her husband, she sailed for California and Australia. At Honolulu they played a very successful engagement, and upon their arrival in Australia they were enthusiastically received. The reputation acquired in Australia went before them to London, and when they returned to that city in 1856 it was to play a series of brilliant engagements at Drury Lane Theater. Mrs. Waller's *début* was in the part of *Pauline* in *The Lady of Lyons*, Sept. 15, 1856. For a year both Mr. and Mrs. Waller were associated with popular Shakespearean successes at Drury Lane and Sadler's Wells. In 1857 they came to Philadelphia, where Mrs. Waller made her American *début* at the Walnut Street Theater as *Ophelia* to her husband's *Hamlet*. But her first success was as *Lady Macbeth*. This part she played on the third night of her engagement, and the wonderful passion and power of her performance electrified the audience. Her next important appearance was at the Broadway Theater, New York, as *Marina* in *The Duchess of Malfi* to her husband's *Ferdinand*. The peculiar manner in which she portrayed this gloomy and grewsome part seemed to exercise a fascination upon the public, and she was long identified with its performance. For nearly ten years Mrs. Waller made extensive and prosperous tours of the United States. Dec. 27, 1869, she appeared for the first time as *Meg Merrilies* at Booth's Theater, New York city, and immediately achieved a triumph, which was duplicated by her performance of *Bianca* in *Fazio* at the same theater, Feb. 26, 1870. In 1876 she assumed the management of the Troy Opera House, which she retained for many years. She revived Guy Mannering at Booth's Theater, New York, supported by her husband, Dec. 6, 1875, and entered upon an extensive and very prosperous tour of the country. On this tour they went to California, where they were enthusiastically patronized. On her return to the East Mrs. Waller played only occasionally, and preferred to devote her time to work as a teacher and to Shakespearean readings. Her last appearance in public was in the reading of selections from Shakespeare and the classic dramas at Chickering Hall, New York, Dec. 1, 1881.

Wauchope, Andrew Gilbert, British soldier, born in Midlothian in 1846; died in South Africa, Dec. 11, 1899. He was the son of a large landowner, entered the army as an ensign in the Black Watch in 1865, served as adjutant from 1870 till 1873, when he went out with the Ashanti

expedition as commander of a company, and afterward served as staff officer with Col. McLeod, who commanded the advanced guard, was present in several engagements, and was severely wounded at Ordahau. As a captain he served with the battalion of the Black Watch that fought in the Egyptian campaign of 1882, was present at Tel el Kebir, served as deputy assistant adjutant and quartermaster general on Sir Gerald Graham's staff in the Soudan, and was again severely wounded at El Teb, winning by his brilliant services the brevet rank of lieutenant colonel. He served with his regiment in the Nile expedition of 1885, accompanying Gen. Earle's river column, and at Kirbekan he was badly wounded for the third time. He was promoted to the rank of colonel, and commanded a battalion of the Black Watch from 1894 till he was appointed a brigadier general in the Soudan expeditionary force in 1898. For gallant and distinguished services at the battle of Omdurman he was made a major general. Succeeding in 1882 to the family estate on the death of his brother, he contested Midlothian with Mr. Gladstone in 1892. He commanded the Highland brigade that was sent to re-enforce Lord Methuen's column in the South African campaign of 1899, and was killed in the attack on Magersfontein.

Walt, Emil, Swiss statesman, born in 1825; died in Bern, February, 1899. He entered the Federal Council in 1866, and proved himself a sagacious politician of large views who exerted a great influence on the progress of affairs in the Swiss Confederation, of which he was elected president four times. He retired from the Federal Council in 1891 because his project for the purchase of the railroads by the state received a check. His leisure time he gave to the study of classic authors, and he won considerable reputation as a Hellenist.

OHIO, a Central Western State, admitted to the Union in 1803; population, according to the last census (1890), 3,666,719, it being the fourth in rank of the States; area, according to the United States Geological Survey, 41,000 square miles, of which 40,700 is land surface and 300 water surface. Capital, Columbus.

Government.—The State officers during 1899 were: Governor, Asa S. Bushnell; Lieutenant Governor, Asahel W. Jones; Secretary of State, Charles Kinney; Auditor of State, Walter D. Guilbert; Treasurer of State, Samuel B. Campbell; Attorney-General, Frank S. Monnett; Board of Public Works, Edwin L. Lybarger, Frank A. Huffman, Charles A. Goddard; Commissioner of Common Schools, Lewis D. Bonebrake; Judges of Supreme Court, Joseph P. Bradbury, John A. Shauck, Thad A. Minshall, Marshall J. Williams, Jacob F. Burket, William T. Spear; Clerk of Supreme Court, Josiah B. Allen; Dairy and Food Commissioner, Joseph E. Blackburn. All these officials were Republican.

Finances.—At the close of the fiscal year, Nov. 15, 1899, after a total disbursement from the treasury of \$7,290,092.47, there was a balance in the general revenue fund of \$1,033,632.35; in the sinking fund, \$77,547.23; in the State common-school fund, \$39,064.15; in the university fund, \$40,733.35.

The funded debt of Ohio, all bearing 3 per cent. interest, was at the close of the year \$1,001,065, and of that amount \$1,165 represents a lost canal bond, upon which interest has long since ceased. Of the payable portion of the debt (\$1,000,000), \$300,000 will fall due July 1, 1900, \$250,000 on July 1, 1901, \$250,000 on July 1, 1902; and \$200,000 (the war loan) on July 1, 1903.

The aggregate municipal debt of Ohio was \$75,000,012.62.

Military.—With the return of the Ohio volunteers from the war it became apparent that the National Guard of the State would have to be completely reorganized. This was done, and at the close of the year the strength of the Ohio National Guard was about 4,850 officers and men in infantry, artillery, cavalry, engineers, and naval brigade, this organization being composed of 8 regiments (in whole or in part) and 1 battalion of infantry, 1 battalion of engineers, 4 batteries of artillery, 1 troop of cavalry, and 2 battalions of the naval brigade. Two brigades and 1 division have been formed. The infantry is armed with Springfield rifles of the 1884 model, 3 batteries of artillery have Gatling guns, and Battery A, of Cleveland, has modern field rifles and equipment.

GEORGE E. NASH,
GOVERNOR OF OHIO.

Canals.—The report of the Board of Public Works shows that for the year ending Nov. 15, 1899, on the canal systems of the State in operation the total receipts were \$90,809.12, apportioned as follow: Land sales, \$3,008; tolls, \$20,812.24; rents, \$66,298.25. Of the tolls, the Miami and Erie Canal contributed \$13,436.98, the northern division of the Ohio Canal, \$6,358.57; and the southern division, \$1,016.09. Of the rents, \$53,065.40 is credited to the Miami and Erie, \$8,446.98 to the northern division of the Ohio Canal, and \$4,785.87 to the southern division.

Penal and Benevolent Institutions.—The penal and reformatory institutions of the State are: The Ohio Penitentiary; the Ohio Reformatory, at Mansfield; the Boys' Industrial School, at Lancaster; and the Girls' Industrial Home, at Delaware. They were maintained during the year at an expense of \$738,553.75. The State benevolent institutions include one for the blind, one for the deaf and dumb, one for feeble-minded youth, seven hospitals for the insane, and one for epileptics. During the year ending on the 15th of November, 1899, \$394,681.26 was expended for additions and improvements to the buildings and \$1,942,080.67 for the support of these benevolent institutions. There are also a soldiers' and sailors' home at Sandusky, and a home for soldiers' and sailors' orphans at Xenia. In 1899 there was expended upon these the sum of \$401,892.70. The total number of inmates for the fiscal year ending Nov. 15, 1899, was: Penitentiary, 3,133; reformatory, 534; Boys' Industrial School, 1,232; Girls' Industrial Home, 408; seven hospitals for the insane, 9,144; Hospital for Epileptics, 1,115; Institution for Feeble-minded Youth, 1,137; Institution for Deaf and Dumb, 552; Institution for Blind, 378; Soldiers' and Sailors' Home, 2,014; Soldiers' and Sailors' Orphans' Home, 1,026.

Educational.—The report of the State School Commissioner shows that where in 1854 only 8,651 pupils were enrolled in the high schools of the State, now there is an enrollment of 57,031.

In the year 249 new schoolhouses were erected, at a cost representing nearly \$1,000,000, and there are now 13,077 schoolhouses. The value of all school property is \$41,446,838. There are 25,712 teachers employed, and the total enrollment of pupils was 798,000. In the universities and colleges of the State there are 6,438 students, and in private schools there are 37,413. The balance on hand in the school fund is \$8,432,973.55.

Labor Troubles.—The most important labor trouble in the State in 1899 was the street-car strike in Cleveland, which, in addition to the usual characteristic features of a great strike, was attended with continuous rioting, murderous assaults, destruction of property, and paralysis of business for some time by the rioting and a general boycott. The trouble began on the morning of June 10, when a strike on the Big Consolidated system tied up a dozen lines and involved more than 850 men. The attempt to run one car to the center of the city precipitated a riot, which the police were powerless to check, and further attempts were abandoned. The State Board of Arbitration endeavored to effect an arrangement, but without success. After nearly a week the company attempted to open some of the lines with nonunion men, when rioting began and continued for several days, cars being wrecked and persons injured. After two weeks the strike ended through the intervention of a committee of the City Council, and all the lines resumed operation on June 25, the company taking back 80 per cent. of the old employees at once and putting nearly all the others on the waiting list. July 17, without warning, all the former strikers left in a body, and the company began filling their places with nonunion men. July 18 a switch was blown up with dynamite and a waiting shed set on fire. That was the beginning of a series of outrages, which continued without intermission nearly two weeks. Cars with passengers were blown up with dynamite, nitroglycerin, and giant powder in different parts of the city, and several persons were injured. Cars full of passengers were stoned, trolley wires cut, and the tracks blockaded with obstacles of all kinds. A bomb was thrown through the roof of the car house where the nonunion men slept. Car crews and rioters shot at each other, and one rioter was killed by a conductor, who was tried for murder some months afterward and acquitted. After all the local militia had been called out State troops were ordered to Cleveland, until there were about 1,200 soldiers under arms, in addition to the police and special deputy sheriffs. This had the effect of quelling the more serious rioting, and nearly two weeks after the first call to arms the troops were gradually withdrawn. Rioting was then succeeded by a general boycott by all the union labor organizations against every person who patronized Big Consolidated cars or sold anything to the Big Consolidated Company or its employees or to persons who rode in the company's cars. The boycott was enforced with such universality and merciless severity that great hardship and distress were caused. It continued until the approach of winter made it impossible to enforce it against the working people who were compelled to use the cars, and by a general understanding it was abandoned without being formally declared off.

Political.—The Prohibition party opened the political year by the adoption of the usual platform and the nomination of the following ticket: For Governor, J. W. Bashford, for whom George M. Hammell was afterward substituted; Lieutenant Governor, A. S. Caton; Judge of the Supreme

Court, Gideon F. Stewart; Attorney-General, Walter S. Lister; Treasurer, C. M. Wise; Auditor, Fred W. Barrett; Member of Board of Public Works, John Danner.

The Republican State Convention was held in Columbus, June 2. The ticket nominated was as follows: For Governor, George K. Nash; Lieutenant Governor, John A. Caldwell; Judge of the Supreme Court, William Z. Davis; Attorney-General, John M. Sheets; Treasurer, Isaac B. Cameron; Auditor, Walter D. Guilbert; Member of Board of Public Works, Frank A. Huffman.

The platform, after reaffirming the principles declared by the St. Louis platform, went on to say:

"We earnestly indorse the great administration of William McKinley. It is distinguished to a remarkable degree in the history of national administrations. Under the last Democratic administration and as a result of Democratic principles and policy our industries were destroyed, capital and labor were unemployed; the poor suffered as never before in our history; agricultural products could not be sold, because consumers could not earn money with which to buy, and every branch of trade felt the blighting influence of the Democratic tariff-reform hard times; the Treasury of the United States was depleted, and the gold reserve disappeared. The Government borrowed money to pay current expenses, increasing the public debt in times of peace by hundreds of millions of dollars.

"The Democratic party proposed to the people as a remedy for all these Democratic ills a depreciated and dishonest currency, which intensified every evil.

"During all that period of depression and distress the Republican party stood fast for the principles and policies under which American industries had been built up and had flourished beyond example—the principles and policies under which the people had prospered and the nation had grown great for a generation—stood fast for a sound and honest currency, and in 1896 elected to the presidency William McKinley, the best exponent of Republicanism and true American ideas and policies, the friend of every American industry, and the wise and patriotic defender and advocate of honest money.

"Under his splendid Republican administration public credit has been restored, the prosperity of the people has developed, our commerce has grown great, our trade—domestic and foreign—has increased to a degree never before known, and the people are looking with confidence for greater things to come.

"The magnificent achievements of our army and navy in the war with Spain for the liberation of the downtrodden and oppressed people of Cuba from the domination of Castilian despotism, accomplished under the master guidance of a Republican administration, are necessarily subjects for highest encomium by a convention of Ohio Republicans.

"We are proud of the brilliant and conspicuous services rendered to the people of the State and the country by the Senators from Ohio, Hon. Joseph B. Foraker and Hon. Marcus A. Hanna, and of the matchless record of the delegation of Ohio congressmen now representing the Buckeye State.

"The present administration of State affairs under Gov. Asa S. Bushnell has been able, wise, and economical. It is pure, free from scandal, and eminently satisfactory to the people of the State, without regard to party.

"We commend the action of the seventy-third General Assembly of Ohio in passing the stringent

law now on our statute books prohibiting the organization of 'trusts,' and we denounce such unlawful combinations as inimical to the interests of the people.

"We demand such readjustment of our tax laws as will impose the burdens of taxation more equally and uniformly upon the various forms of property.

"The growing evil of lynching, attended at times by unspeakable horrors, is a blot upon our civilization and a menace to our republican form of government."

The Democratic State Convention met at Zanesville, Aug. 30. The following ticket was nominated: For Governor, John R. McLean; Lieutenant Governor, Abraham W. Patrick; Judge of the Supreme Court, DeWitt C. Badger; Attorney-General, William H. Dore; Treasurer, James S. Gorman; Auditor, George W. Sigafosse; Member of Board of Public Works, Fletcher D. Malin.

The platform contained these declarations:

"We heartily reaffirm the entire Chicago platform of 1896, and we especially emphasize the financial plank therein, and we continue to demand the free and unlimited coinage of silver and gold as equal primary money at the rate of 16 to 1, independent of all other nations in the world.

"The Hon. William J. Bryan still retains our entire confidence, and we demand his renomination in 1900.

"We recognize the solemn fact that our Government can not be both republican and imperial.

"We are radically and unalterably opposed to imperialism in the United States of America. When we have solved some of the race problems that confront us at home then by example we can proclaim the blessings that flow from free institutions, and thus procure benevolent assimilation 'without criminal aggression.'

"We proudly recognize the valor and glorious achievements of our gallant soldiers and sailors from Bunker Hill to this very hour as being among the most thrilling and glorious in the history of the world, but we profoundly regret that American soldiers are being unlawfully used in the name of liberty to crush and destroy dawning republicanism in the Orient; and we denounce the secret and vicious alliance now in evidence between England and the Republican administration, whereby this nation may become involved in war with foreign nations.

"We demand that the Cubans and Philipines not only be permitted but encouraged to establish independent republics, deriving all of their governmental powers from the consent of the governed.

"We denounce the Republican party for its thirty-eight years of abject subservency to the shipping interests of Great Britain, and we denounce the so-called Hanna-Payne shipping bill, which, if enacted into law, would further shackle our interests.

"We are in favor of maintaining our splendid and efficient navy.

"A large standing army in our republic is a menace to liberty.

"We favor the initiative and referendum, the passage of the eight-hour labor law, the more rigid inspection of mines and workshops, the prohibition of sweat shops, and the abolition of the contract system of prison labor.

"We declare that all unlawful combinations of capital are the legitimate fruits of a gold standard and other corrupt Republican legislation on questions of the tariff; and we demand that all articles the prices of which are controlled by the

trusts be placed on the free lists. We denounce the Attorney-General of the United States, appointed from the State of New Jersey, the hotbed of trusts, for his refusal to enforce the statutes of the United States against them; and we commend the present Attorney-General of Ohio for his earnest efforts to enforce the statutes of Ohio against such illegal combinations.

"Political bosses are to be detested, and are inimical to our form of government. Bosses represent simply a concentration of political power or a ring. They live and exist through jobs and schemes loaded upon the taxpayers. They substitute their rule in their party for the rule of its voters, and visit political death upon any who refuse to bow to their dictation. The Republican party in Ohio is now in such control. The nominees on its ticket should not and will not command the suffrages of self-respecting Republicans. They are not the free selection of the properly delegated representatives of that party.

"We deplore the frequent and outrageous exercises of lynch law in this and other States, especially against our colored citizens, and we recommend the adoption of prompt and efficient measures to suppress such unwarranted acts of violence.

"We recommend a constitutional amendment providing for the election of President, Vice-President, and United States Senators by a direct vote of the people."

The Union Reform party met in Columbus, Aug. 22, and nominated a full ticket, as follows: For Governor, Seth W. Ellis; Lieutenant Governor, G. W. Seelye; Judge of the Supreme Court, Alfred R. McIntyre; Attorney-General, Thomas Bentham; Auditor, Frank S. Montgomery; Treasurer, William E. Good; Member of Board of Public Works, Alfred F. Weaver.

The report of the Committee on Resolutions, which was adopted, was:

"Resolved, That the national preamble and platform of the Union Reform party as framed at Cincinnati be adopted as the preamble of the platform of this convention." This platform makes the initiative and referendum the only plank.

The Social-Labor party also nominated a full ticket, as follows: For Governor, Robert Bandlow; Lieutenant Governor, E. Bartholomew; Judge of the Supreme Court, S. Barton; Attorney-General, John Cooper; Auditor, H. Lavin; Treasurer, O. Freer; Member of Board of Public Works, C. M. Newton.

A unique feature of the campaign was the appearance of a candidate for Governor without a party to nominate him and on a platform of his own making. Samuel M. Jones was elected mayor of Toledo on the Republican ticket in 1897, but was rejected by the Republicans in the contest for the nomination in the spring of 1899. He announced himself as an independent candidate on the platform of the "golden rule," and overwhelmed the other candidates by his vote. It was understood that he would be a candidate for Governor, and it was planned for the Union Reform convention to leave the head of that ticket blank, that the members of the party might vote for Jones. When the convention nominated Ellis for Governor Mayor Jones next day published a manifesto announcing himself as a candidate for Governor on the following platform:

"Equality of opportunity for all. All men have an equal right to a place on the earth. It is the duty of every patriot to see that this right is guaranteed to every man. The steps necessary to attain this right for which I stand are:

"1. The right of self-government through the abolition of political parties—A, direct nomination of candidates by the people; B, direct making of laws by the people.

"2. Public ownership of all public utilities.

"3. Union wages, hours, and conditions, or better, for skilled labor, and an eight-hour day with a living wage for unskilled labor on all public work done.

"4. Abolition of the contract system, that glaring evil of the competitive system, on all public work, and the substitution of direct employment.

"5. It is the imperative duty of the State Legislature to deal with the question of unemployment, to the end that provision may immediately be made that no citizen of Ohio who is willing to work shall be driven into pauperism, crime, or insanity for want of work."

The campaign that followed was peculiar. The Republicans and Democrats were both divided by factions. The nomination of Nash by the section of the Republican party following the counsels of Senator Hanna was repugnant to the faction that had made a hard fight against the Senator the year before, and there were threats of active opposition to the ticket. On the other hand, the nomination of John R. McLean antagonized a large number of Democrats, who resented his selection on account of his having been for many years a nonresident of the State. The part the Jones vote would play in the result was a subject of great anxiety in both the leading parties. The total vote cast was 908,159. For Governor George K. Nash, Republican, received 417,199 votes; John R. McLean, Democrat, 368,176; Samuel M. Jones, nonpartisan, 106,721; Seth H. Ellis, Union Reform, 7,799; George M. Hammel, Prohibitionist, 5,825; Robert Bandlow, Socialist, 2,439. Nash's plurality was 49,023. Jones had the highest vote of any one candidate in two counties, having in Cuyahoga County a plurality over Nash of 14,904, and a majority over all of 5,888, and in Lucas County a plurality over Nash of 1,425. All the other Republican candidates were elected, with the following pluralities: Lieutenant Governor, John A. Caldwell, 12,720; Auditor of State, Walter D. Guilbert, 47,848; Treasurer of State, Isaac B. Cameron, 48,043; Attorney-General, John M. Sheets, 45,009; Judge of Supreme Court, W. Z. Davis, 46,313; Member of Board of Public Works, Frank A. Huffman, 47,670.

A Legislature was also elected, the political complexion of which is as follows: Senate—Republican, 19; Democrat, 11; Independent Republican, 1. House—Republican, 62; Democrat, 48. Joint ballot—Republican, 81; Democrat, 59; Independent Republican, 1.

OKLAHOMA, a Territory of the United States, organized in 1890; area, 38,715 square miles. The population, according to the census of 1890, was 61,834; by the Auditor's census of 1894 it was 212,635; the Governor's report gave it as 275,587 in 1896 and 311,400 in 1898. The Indian population is 12,041, a decrease of nearly 1,000 in a year. Capital, Guthrie.

Government.—The following were the Territorial officers in 1899: Governor, Cassius M. Barnes; Secretary, William M. Jenkins; Treasurer, Frank M. Thompson; Attorney-General, Harper S. Cunningham; Superintendent of Instruction and Auditor, Stuart N. Hopkins; Adjutant General, Bert C. Orner; Oil Inspector, Amos A. Ewing; Bank Examiner, John M. Pugh; Superintendent of Public Health, L. H. Buxton; School Land Commissioner, Charles H. Filson; Grain Inspector, C. F. Prouty; Game Warden,

Daniel R. Widmer; Librarian, George H. Dodson; Chief Justice of the Supreme Court, J. H. Burford; Associate Justices, B. F. Burwell, B. T. Hainer, John L. McAtee, and C. F. Irwin, who succeeded J. C. Tarney in March; Clerk, B. F. Hegler. All are Republicans except Judge McAtee, who is a Democrat.

Finances.—The total taxable property as assessed amounts to \$42,982,414. This is an increase of more than \$2,000,000 in one year. The Territorial tax is 5.2 mills, of which 3 mills is for general purposes, the remainder for education and charities. The bonded debt is \$48,000; the warrant indebtedness, June 30, was \$290,036.39.

Education.—The number enrolled in the schools in 1898 was 77,121, of whom 4,224 were colored. The schools taught numbered 1,962; the average length of school in days in the different counties varied from seventy-three to one hundred and seventeen. There were 2,107 teachers, and the average monthly salaries were from \$18.57 to \$62.50. The total receipts for the year ending June, 1898, were \$570,238; the expenditures, \$415,347.

The university, at Norman, is supported by a general tax of 0.5 mill, and has its share from the leases of the lands reserved for the benefit of the normal school, the university, and the Agricultural College. In all departments there were 336 students, with the prospect of 450 in 1899-1900.

The normal school at Edmond had an attendance of 250; 10 were graduated in 1899.

In the Agricultural and Mechanical College, at Stillwater, 219 were enrolled, of whom 95 were in the collegiate classes, the remainder in the preparatory department; and 8 were graduated. The courses of study have been strengthened and enlarged. The Legislature this year provided for a tax of 0.1 mill, and set apart one fifth of the income of the lands mentioned above for this institution. The annual income from all sources is now about \$50,000. A special appropriation of \$20,000 was made for buildings. The new building for the Northwestern Normal School, at Alva, was finished in April, having cost \$91,995. The school was organized in 1897, and has been in temporary quarters. The enrollment in 1898 was 211, want of room having necessitated the rejection of 73 applications. In 1899 there were 327.

Langston University, for colored students, was opened in September, 1898, and at the close of the year had 181 students. Buildings have been added at a cost of \$10,000, given by the last Legislature, which also granted \$44,000 for expenses of the coming two years.

Charities and Corrections.—For the care and education of 27 deaf-mutes the Territory paid for the year \$6,182 under contract. There is no provision now for the blind children, the contract formerly in force having been given up. July 1 there were 243 insane patients cared for by contract, at \$200 a year each.

The Territorial Penitentiary had in the autumn 168 convicts, whose care and keeping cost \$20,634, and transportation \$3,144. They are kept under contract at Lansing, Kan., at the rate of 35 cents a day.

Railways.—Three lines of railway were built in the year, and 4 are building; 26 companies were chartered within eighteen months. The mileage is more than 1,000, of which about 780 is main track. The valuation for taxation is \$3,338,345.

Militia.—The National Guard consists of about 450 officers and enlisted men, organized in 9 companies and a regimental band.

Banks.—There are 68 Territorial banks and 7 national banks, with a total paid-up capi-

tal of \$954,600,000. Of the former 19 were organized in 1898-'99. In two years gains in deposits amounted to \$1,523,223, a percentage of 103. The gain in cash was \$1,086,372, a percentage of 146. No failures occurred in the two years. The national banks show a gain in deposits of \$146,111, or 13 per cent. in one year.

Loan Associations.—Four of these are chartered, 2 of them very recently; the other 2 have paid dividends from 12 to 20 per cent. a year.

Insurance.—There are 39 fire, 19 life, and 6 accident and casualty companies licensed to do business in the Territory. In addition to this the various fraternal orders carry large amounts of insurance. The business done by outside fire companies is shown by the following statistics: Written in 1898, \$8,839,557; premiums received, \$107,080; losses paid, \$18,002; losses incurred, \$24,638. Life companies wrote \$1,738,307; received premiums, \$75,516; incurred losses, \$58,842.

Products and Industries.—The cotton crop of 1898 was about 140,000 bales, value about \$5,000,000. The crop of this year was estimated at about the same quantity. At the Omaha exposition Oklahoma showed the tallest stalk of corn—over 19 feet. The average yield of corn in many localities is 40 bushels to the acre on upland, and 50 to 60 on bottom land is common. The crop of castor beans was about 125,000 bushels.

There are 79 grain elevators in the Territory, with an aggregate capacity of 1,341,000.

The assessments of live stock were as follow: Horses, 216,971; mules and asses, 44,191; cattle, 849,767; sheep, 36,652; swine, 228,498.

Thirty flour mills are in operation, with total capacity of 5,100 barrels a day. The number of manufacturing establishments is 138, the employees 1,921; the number of wholesale houses 96, with 815 employees.

Lands.—The Indian reservations cover 6,949,715 acres. The school lands amount to 1,675,840 acres, and the net proceeds from leasing them amounted in 1899 to \$133,047. There are still 6,388,373 acres of Government land subject to homestead entry. In the year ending June 30 entries were filed on 666,747 acres.

Punishment of Lynchers.—In June N. M. Jones, ex-deputy United States marshal, was convicted of taking part in the crime of burning two Seminole Indians in 1898, and was sentenced to serve twenty years in the Penitentiary. Another member of the mob received a sentence of ten years. Others were arrested.

Political.—A new party in Oklahoma, the Socialists, was formed at a conference at Oklahoma City, Oct. 14, and permanent organization was effected, Dec. 27. The platform favors single Statehood, universal suffrage, direct legislation, compulsory education, inalienable school lands, and public ownership of public utilities.

Legislative Session.—The fifth legislative session began Jan. 10 and ended March 15. Hugh McCredie was president of the Council, and A. H. Huston president *pro tempore*; Thomas J. Reid was Speaker of the House, and W. H. Merten Speaker *pro tempore*.

Among the measures passed were a general election law; a general banking law; a law establishing a Territorial Board of Equalization; a general game and fish law, permitting fish to be sold for home consumption; and a general warehouse law, creating a board of commissioners; also creating the office of Chief Inspector of Grain, and requiring warehouses to be licensed. The office of Territorial Geologist was created. A

law was made for preventing the spread of contagious diseases of domestic animals. The law of 1897 creating a Territorial schoolhouse insurance fund was repealed. Distribution of funds arising from school-land leases was arranged for, and the law of levying taxes for Territorial institutions was amended. It was provided that the money received from Congress under the act of 1890 for agricultural instruction be divided so as to give one tenth to the Langston Agricultural and Normal University for colored students. Certain notes and mortgages of building and loan associations were exempted from taxation. Cotton factories are to be exempted from taxation for ten years after establishment. Other measures were:

Regulating the inspection and sale of oil.

Regulating the practice of pharmacy.

Permitting bodies of dead paupers to be given to medical schools and regular physicians.

A bill looking to immediate statehood was passed, providing for a constitutional convention to meet in the summer, composed of delegates to be chosen in June, after which an election should be held to ratify the Constitution and elect State officers; then admission was to be sought. The Governor vetoed this bill, as it is his opinion that Oklahoma and the Indian Territory should enter the Union as one State. A bill aimed at Christian Scientists was returned without approval on the ground that it was calculated to interfere with religious liberty.

ONTARIO, a province of the Dominion of Canada; area, 220,000 square miles; population in 1891, 2,114,321. Capital, Toronto.

Government and Politics.—The Legislature was opened on Feb. 1, 1899, by Lieut.-Gov. Sir Oliver Mowat with a speech from the throne, of which the following are the chief paragraphs:

"The legislation of last year which provided that all pine logs cut on the Crown domain after the termination of the then existing timber licenses should be sawn in Canada has been made effective by inserting the manufacturing conditions in all renewals of licenses for the current year.

"The mining industry of the province continues to improve, and it is giving constantly increasing employment to capital and labor. Since your last session the province has assumed the administration of the provincial fisheries. A fishery branch has been established, departmental officials have been appointed, and the outside service is being organized.

"Experience has shown that the election laws may be further improved, and a bill for that purpose will be submitted to you. Among the other measures to be submitted for your consideration will be a bill for amending the school laws; a bill to authorize the Parliament of Canada to pass an act confirming the survey of the boundary between the provinces of Ontario and Manitoba; and a bill to improve the workmen's compensation for injuries act."

Following up the policy of the Liberal party at Ottawa as enunciated during the preceding year, the Ontario Government gave notice of, and carried on a strict party vote, a motion regarding the Senate of Canada as follows:

"That in the opinion of this House the provisions of the British North America act respecting the constitution and powers of the Senate of Canada are at variance with the well-understood principles of responsible government, and should be brought more into harmony with those principles by an amendment to the said act, substantially providing that in case of disagreement be

tween the House of Commons and the Senate, the point of difference shall be decided by a majority of the members of the two houses present and voting in a joint meeting. Further, that it is the opinion of this House that the British North America act should be so amended as to provide that the appointment of Senators should be for a limited term of years, and not for life as at present."

The House adjourned after one of the heaviest sessions in provincial history, on April 3, with the following review of its work from the Lieutenant Governor:

"I cordially approve of the measures adopted for supplementing the revenues of the province. By the act last year which required the manufacture of saw logs in Canada, it was inevitable that the receipts from the Crown Lands Department would be impaired, and when to the probable loss of revenue is added the expenditure arising from the increase of population and the growing needs of the people, the public interests required that provision should be made for all necessary expenditure and for the maintenance of the financial standing of the province. I am glad you have been able to effect this by a moderate tax upon the accumulation of capital and by a reasonable increase in the duties upon distillers', brewers', and liquor licenses. I assent with much pleasure to the act respecting aid to certain railways. In order, however, that the resources of the northerly and westerly parts of Ontario may be opened for further settlement, the further extension of our railway systems to those sections becomes necessary. Within two or three years access will probably be obtained by railway to the agricultural lands in the Rainy river district and the mineral and timber lands lying between Rainy lake and Port Arthur. And through part of the railroad systems projected it is intended to place the capital of the province in direct communication with the tide waters of Hudson's Bay.

"The acts respecting public schools, the amendments to the election laws, the further improvement of our mining industries, for the protection of our fisheries, and for the better administration of the game laws, meet with my hearty approval."

The game protection bill settled a question that had been debated for years. It permits the shooting of deer in the water. It also enables persons and corporations engaged in the cold-storage business to keep game in cold storage during the close season upon taking out a license, and hotels, clubs, and restaurants to supply game to their customers at meals, also upon taking out a license. Carriers and other persons are prohibited from transporting wild deer, deers' heads, deers' skins, or any venison unless there is attached to each deer, deer's head, deer's skin, or venison one of the coupons belonging to the hunting license of the person shipping the articles.

By the mines act a bonus of 50 cents a ton is every year to be paid out of the iron mining fund on all pig metal smelted at the blast furnaces in the province from foreign ores with charcoal or peat made in Ontario. But to obtain the bonus the following yearly proportions of Ontario ores must also be smelted: In the first period of two years not less than 20 per cent. of the foreign ores; after two years not less than 40 per cent.; after four years not less than 60 per cent.; after six years not less than 80 per cent.; after eight years not less than 100 per cent. The bonus per ton on the pig metal produced from Ontario ores is to be \$1. No more than \$25,000 will be

paid out in any one year for these bonuses. The bill also rearranges the price and rental of mining lands.

Subsidies were granted to railroads as follow: Ontario, Hudson Bay and Western, 240 miles, \$2,000 a mile; James Bay, 175 miles, \$2,000 a mile; Haliburton, Whitney and Mattawa, 30 miles, \$3,000 a mile; Ontario and Rainy River, \$1,000 a mile for 205 miles and \$4,000 a mile for the remaining 75 miles; Central Ontario, 21 miles, \$3,000 a mile; Central Counties Railway, 14 miles, \$2,000 a mile; and Ontario, Belmont and Northern, 7 miles, \$3,200 a mile. The total amount of these subsidies is \$1,538,400.

The succession duties bill provides more effective means for recovery of succession duties where any property which previous to the death of the person whose estate is subject to duty has been conveyed or transferred to some other person is declared liable to duty.

The following railways incorporated: The Worthington and Onaping Railway, the Thunder Bay, Nipigon and St. Joe, the Nipigon Railway Company, the Nickel Range Railway, the North Lanark Railway, the Haliburton, Whitney and Mattawa, the Hamilton and Caledonia Railway, the Thessalon and Grand Portage Railway, the Bruce Mines and Algoma Railway, the Algoma Central Railway.

Politics in 1899 were very warmly discussed in Ontario. In the constituency of West Elgin evidences were produced of undoubted corruption in the preceding general election, and the Liberal (Government) member was unseated and subsequently defeated. In three other by-elections two seats were held by the Government and one went Conservative. But the Government majority in the Legislature was very small. On Oct. 18 the Hon. A. S. Hardy, Premier of the province for three years, resigned, and accepted a sinecure appointment under the Crown. On Oct. 21 the new Ministry was sworn in, with the Hon. G. W. Ross, who had acted for many years as Minister of Education, as Premier. His Ministry was much the same as the old one except that certain offices changed hands and that Messrs. J. R. Stratton and F. R. Latchford came in as new members. It was made up as follows: Premier and Provincial Treasurer, Hon. G. W. Ross; Attorney-General, Hon. J. M. Gibson; Minister of Education, Hon. Richard Harcourt; Minister of Agriculture, Hon. John Dryden; Commissioner of Crown Lands, Hon. E. J. Davis; Provincial Secretary, Hon. J. R. Stratton; Minister of Public Works, Hon. F. R. Latchford; ministers without portfolio, Hon. Messrs. J. T. Garrow and William Harty.

Finances.—Mr. Harcourt made his budget speech on Feb. 10, and had to deal with a deficit which seemed to depend in amount upon the question whether the Government or the Opposition were handling the figures. The principal receipts for 1898 showed a decrease of \$500,000 over the preceding year, and were as follow: Interest on capital held and debts due by the Dominion, \$272,414; interest on investments, \$31,646; Crown lands, \$42,602; rent, \$63,944; woods and forests, \$981,186; licenses, \$276,761; law stamps, \$57,283; Education Department, \$59,573; succession duty, \$206,185; casual revenue, \$116,568; public institutions, \$94,113. Only in two cases was there an increase of revenue. In the one case it amounted to \$60,000, this being derived from interest payable by the Dominion, and in the other, \$3,057, was caused by an augmentation in the revenue of the Education Department. On the other hand, the net decrease amounted to \$507,955. The larg-

est decrease was under the heading of woods and forests, where a decline of \$345,954 was shown. The total receipts as given by the Treasurer for 1898 were \$3,647,353; the expenditures, \$3,803,081.

Minerals.—The total value of mineral production in 1891 was \$4,705,673; in 1892, \$5,374,139; in 1893, \$6,120,753; in 1894, \$6,086,758; in 1895, \$5,170,138; in 1896, \$5,235,003; and in 1898, \$2,464,239. In 1897 statistics of building materials were not collected, and for that year a comparison of total products can not be made. Gold mining began in an uncertain way in Ontario in 1892, and although mines and mills have been worked irregularly since then, only seven are steady producers of bullion. During the three years 1892–93–94 the production ranged from \$33,776 to \$36,900. In 1895 it rose to \$50,781, in 1896 to \$121,848, in 1897 to \$190,244, and in 1898 to \$275,078. In the first half of 1899 the value of bullion produced was \$224,995.

The Hon. J. M. Gibson, Provincial Secretary, explaining the Government's policy in regard to charcoal iron smelting, etc., in March, 1899, said: "The blast furnace at Hamilton was started in 1896, and in the three years it has produced 100,566 net tons of pig metal, valued at \$1,172,696. It employs about 130 men, and the amount of wages paid in the three years has been \$148,475. Last year it produced 48,253 tons of pig metal, valued at \$530,788, and it paid for labor \$61,475. A blast furnace has been completed at Deseronto for the production of charcoal iron, and all the charcoal fuel to be used is made in the province. A second charcoal furnace is to be erected this year at Midland, which will begin with a capacity of 60 tons of pig metal a day.

"Under the act of 1891 the price of mining lands ranged from \$2 to \$4.50 an acre, and by the act of 1892 the maximum price was reduced to \$3.50. In 1894, owing to the business depression, the prices were further reduced to a range of \$1.50 to \$3. The present buoyancy of trade and business, with accompanying activity in mining enterprise, appears to justify a small increase."

Agriculture.—The year 1899 was a fairly good one for the Ontario farmer. The production was as follows: Fall wheat, 14,439,827 bushels; spring wheat, 7,041,317 bushels; barley, 14,830,891 bushels; oats, 89,897,724 bushels; peas, 15,140,790 bushels; rye, 2,284,846 bushels; buckwheat, 2,203,299 bushels; beans, 651,000 bushels; potatoes, 19,933,366 bushels; mangel-wurzels, 20,898,387 bushels; carrots, 3,674,035 bushels; turnips, 57,878,390 bushels; corn (for husking), 21,673,234 bushels; hay, 3,498,705 tons; apples, 19,126,439 bushels; tobacco, 2,241,562 pounds. Estimating the values at current prices, the total value was \$113,000,000.

Liquor and Licenses.—The ordinary licenses, the beer and shop and wine licenses, issued in 1898 were 3,123 in number—a slight reduction upon the preceding year. The revenue from them was \$268,247—also a slight reduction. The total raised by fines, etc., was \$602,853. Legislation was introduced during the session which increased the fees and licenses generally, and was expected to take \$24,000 of revenue more from distillers, \$16,000 from brewers, and \$65,000 from license holders per annum.

Education.—The total amount expended upon public schools in 1898 was \$3,913,501—an increase of \$24,058. Of this sum, \$350,457 was expended for sites and buildings, \$2,717,261 for teachers' salaries, and \$845,783 for all other purposes. The number of registered pupils of all ages in the public schools was 441,157, an increase for the year of

55; while the average attendance was 248,548, an increase of 1,824. The number of teachers employed was 8,376, of whom 2,090 were men and 5,686 women. The number of pupils in the Roman Catholic separate schools was 24,996, an increase of 366. Upon high schools, the total amount expended was \$715,976, of which \$532,837 was for teachers' salaries, \$46,027 for sites and buildings, and \$136,512 for all other purposes. At the night schools the total attendance was 1,406 and the average attendance 317. In 1872 486 high-school pupils when they finished their high-school education entered mercantile life. In 1897 the number had increased to 1,368. Similarly 300 high-school pupils left the high school for agricultural pursuits, and in 1897 1,153 pupils pursued a similar course.

The free library system had been very successful. In 1895, when the act regarding free libraries was passed, there were only 12 such institutions in the province. Now 103 reported, and others have been established. The total number of public and free libraries for 1898 was 384.

The Insane.—The annual report showed the insane population in 1898 to amount to 5,733—more than 700 in advance of any other year. The average numbers between 1889 and 1898 had been 4,538. Though the population in the asylums is increasing, it seems probable that the number of insane did not increase. Dr. C. K. Clarke, of Kingston Asylum, in his report said: "There is a prevailing impression that insanity is steadily increasing, whereas the generality of hospital physicians are inclined to the belief that acute insanity is not as common as it was some years ago. It is true that our hospitals for the insane are crowded at all times, and that as fast as accommodation is provided patients are found to fill the beds; but in the majority of instances the applications are not for acute cases, but for persons who have long since passed the curable stage." The marked feature of the report was the large number of patients cured in the season. They averaged 33.04 per cent. In 1897 the average was 24.97 per cent., and the average of the preceding eight years was 28.06.

ORANGE FREE STATE, a republic in southern Africa. The legislative body is called the Volksraad, a single chamber of 60 members, elected by adult male citizens for four years, half being renewed every two years. The qualifications for electors are possession of a freehold of the value of £150, a leasehold at an annual rental of £36, an income of £200, or personal property worth £300. The President is elected for five years. M. T. Steyn was elected President of the republic on Feb. 19, 1896. The Executive Council was composed in the beginning of 1899 of P. J. Blignaut, Government Secretary; H. F. D. Papenfus, Landrost of Bloemfontein; and G. van Tonder, J. Palmer, and A. Fischer, elected by the Volksraad.

Area and Population.—The estimated area of the Free State is 48,326 square miles. The population at the census of 1890 was 207,503, of whom 77,716 were whites, divided into 40,571 males and 37,145 females, and 129,787 were colored, divided into 67,791 males and 61,996 females. Bloemfontein, the capital, had 5,817 inhabitants in 1892. Of the total white population 51,910 were born in the Free State, 21,116 in Cape Colony, 1,002 in the Transvaal, 869 in Natal, 56 in Griqualand West, 2,549 in Europe, and 214 in other parts of the world.

Finances.—The revenue in 1897 was £402,230, and the expenditure £381,589. Of the revenue £162,929 came from customs, £53,975 from

stamps, £35,399 from posts and telegraphs, £33,736 from transfer dues, £14,932 from quit rents, and £17,429 from the native poll tax. Of the expenditures £53,234 were for salaries, £49,667 for education, £29,660 for posts and telegraphs, £27,365 for public works, £13,156 for police, and £10,543 for the artillery. The public debt in 1897 was £40,000; in 1899 it was £460,000. The property of the state is valued at £5,500,000,

minus of the Cape line at Norval's Point, on the Orange river, to Bloemfontein, and through to Viljoens Drift, on the Vaal river, was transferred on Jan. 1, 1898, to the Government of the Orange Free State, which gave debentures for £1,692,213. The net receipts for 1897 were £504,009, out of which £309,488 were paid for extensions and equipment. The total length of railroads is 366 miles, built at a cost of £2,500,000.

BUSHMAN ENCAMPMENT.

including railroads and public lands. The revenue for 1898 was £899,758; expenditure, £956,752. For 1899 the revenue was estimated at £840,455, and expenditure at £948,523.

Defense.—The whole male population between the ages of sixteen and sixty must turn out with horse and rifle at a summons to arms from the field cornet, or captain in command of the district. The strength of the army that can be thus mobilized is 17,381. There are 4 batteries of artillery, with a force of 150 trained artillerymen, at the capital, and 550 men who have served their time are retained as a reserve.

Commerce and Production.—The land is divided into 10,409 farms, covering 29,918,500 acres, of which only 250,600 acres are tilled. Sheep, oxen, goats, and horses are reared. The total value of the imports in 1897 was £1,231,699, of which £913,158 came from Cape Colony, £185,409 from Natal, £107,987 from Basutoland, and £25,043 from the Transvaal. The value of the exports was £1,794,242, of which £735,883 went to Cape Colony, £127,253 to Natal, £59,368 to Basutoland, and £871,738 to the Transvaal. The exports of diamonds in 1897 were £440,964 in value. In 1898 the total imports were valued at £1,191,932, and exports at £1,923,425. Since July 1, 1889, the Free State has formed a customs union with Cape Colony, which Natal joined on May 20, 1898.

Railroads and Telegraphs.—A railroad built by the Government of Cape Colony from the ter-

The telegraph lines have a total length of 1,429 miles, with 1,683 miles of wire, not including 333 miles of railroad telegraphs, with 999 miles of wire. (See SOUTH AFRICAN REPUBLIC.)

OREGON, a Pacific coast State, admitted to the Union Feb. 14, 1859; area, 94,560 square miles. The population was 13,294 in 1850; 52,465 in 1860; 90,923 in 1870; 174,768 in 1880; 313,767 in 1890. By the State census of 1895 it was 362,513. Capital, Salem.

Government.—The following were the State officers in 1899: Governor, Theodore T. Geer; Secretary of State, Frank I. Dunbar; Treasurer, Charles S. Moore; Attorney-General, R. D. N. Blackburn; Superintendent of Instruction, J. H. Ackermann; Adjutant General, B. B. Tuttle; State Printer, W. H. Leeds; Food Commissioner, J. W. Bailey; Game and Forestry Warden, L. P. W. Quimby; Land Agent, T. W. Davenport, succeeded in March by L. B. Geer; Printing Expert, A. F. Hofer, succeeded in March by Ross E. Moores; Fish and Game Protector, F. C. Reed, succeeding H. D. McGuire, who was drowned in Umpqua river, April 8; President of the State Board of Agriculture, W. H. Wehrung, and of that of Horticulture, H. B. Miller; Biologist, F. L. Washburn; Librarian, James B. Putnam; Chief Justice of the Supreme Court, C. E. Wolverton; Associate Justices, R. S. Bean and F. A. Moore; Clerk, J. J. Murphy—all Republicans.

Finances.—The balance in the treasury Jan. 1 was \$763,699.23; the receipts during the year,

\$1,914,548.14; the disbursements, \$1,936,930.94; balance Dec. 31, \$741,316.43.

The valuation of property for taxation was \$133,533,571 in 1898, and the tax levy for 1899 based on this valuation was \$761,141.37, at the rate of 5.7 mills. The valuation in 1899 was \$120,287,879.

The State Land Board sold 114,945 acres in 1899, and paid into the several funds \$321,428.90. The value of mortgages discharged was \$462,062.98; the values of loans approved, \$836,700.25.

Education.—The school population is 132,408; the enrollment in public schools the past year, 85,230; average attendance, 61,234. The number of teachers was 3,675, of whom 2,558 were women. The value of school property was \$2,871,718.34, not including furniture, which was \$285,774.95, and apparatus, \$119,502.24. The average monthly salary of men teaching was \$42.96; of women, \$34.81. The receipts amounted to \$1,327,781.59; the disbursements, \$1,259,125.38, of which \$826,385.47 was for teachers' salaries.

The State Normal School at Monmouth graduated a class of 35 in June; the one at Drain, 12; and the Weston State Normal School, 10.

The report of the Agricultural College, at Corvallis, shows that 338 students were enrolled in the year ending in June, not including those in the farmers' short course, which bring the number to 440. The funds received amounted to \$102,587, and the expenditures to \$96,420. A sub-freshman class has been added for preparatory work. There were 34 graduates in the several departments.

The State University received \$44,963.43, and expended \$44,037.80. The Legislature reduced the rate of interest on the university land fund from 8 to 6 per cent., and the Villard fund has been converted into 4-per-cent. bonds; this has so lessened the income that all tutors and assistants have been dispensed with, and a reduction of the faculty is contemplated. The number of students was 266, of whom 84 were women. In June 44 were graduated.

Pacific University, at Forest Grove, has new buildings, and had an increased attendance the past year, 62 more than during the year preceding. The Pacific College, at Newburg, graduated 21 in June; McMinnville College, 8; Willamette University, 16.

Charities and Corrections.—The management of the Soldiers' Home, at Roseburg, was by act of the Legislature taken from the trustees and placed in the hands of the Governor. He is to prescribe the rules, appoint the officers, and have general supervision. There were 90 inmates in November.

At the insane asylum 1,170 patients were reported in December, of whom 370 were women. The expenses were \$133,952.33 for the supplies and salaries this year. No payment is accepted for any patient.

There were 322 convicts in the Penitentiary at the time of the last biennial report; one was a woman. In 1897-'98 the institution received from the legislative appropriation \$86,592.66, most of which was used. The Reform School had 99 inmates at the beginning of the year.

Industries and Products.—From a table of Oregon statistics of 1899 published in The Oregonian are taken the following: Corn, 344,161 bushels, \$172,080; wheat, 23,649,334 bushels, \$10,672,200; oats, 5,201,232 bushels, \$1,560,369; hay, 1,142,293 tons, \$6,853,758; potatoes, 5,126,241 bushels, \$1,537,872; wool, 18,028,276 pounds, \$2,163,393; sugar beets, 11,205 tons, \$50,827; hops, 14,400,000 pounds, \$1,206,000; poultry and eggs,

\$4,512,719; fruit crop, \$272,050; butter, cheese, and milk, \$5,459,469; sales of stock, \$9,500,000; rye and barley and miscellaneous, \$1,500,000; gold, \$3,285,000; silver, \$193,940; coal, \$264,163; manufactured goods (including lumber), \$56,140,195; Columbia river salmon pack, 340,125 cases, \$1,800,775; salmon pack of Oregon coast streams, 74,332 cases, \$271,532; fresh fish consumed locally and shipped, 5,448,617 pounds, \$370,848. Total, \$107,877,190.

The exports of Portland amounted to \$7,483,084; the imports, \$1,646,819.

Lands.—The area of unsurveyed and surveyed land, still unappropriated and not reserved, is given as 35,897,896 acres. The area reserved is 5,467,702 acres. In 1899 540,423 acres of Government land were sold. The forest reserves are: Cascade Range Reserve, 4,492,800 acres; Bull Run Reserve, 142,080 acres; Ashland Reserve, 18,560 acres.

In November the Commissioner of the Land Office decided in favor of the settlers who had taken up certain lands on the shore of Lake Malheur by homestead entry. The lands have been long in dispute. They were uncovered by the recession of the waters of the lake, and were entered upon by settlers as Government land. The owners of the original shores of the lake claimed the uncovered land, on the ground that their titles covered it, and sought to have the settlers dispossessed; but the decision is against them.

A co-operative colony has bought 8,000 acres at Monroe, Benton County, in the Willamette valley. It is called the Co-operative Christian Federation, No. 1, and the intention is that, while nonsectarian, the colony shall make the teachings of Jesus the rule of action in all its affairs. The charter members are mostly from Oregon and Washington, though some have come in from other States. To be accepted as a member of the community the applicant must be in good health and of sound moral character. "Membership in the federation gives free schools, free doctors and nurses, and free homes. Free schools include music and art and manual training in your chosen trade or profession, and when you, from any cause, can no longer labor, your home remains the same, your food and clothing the same, your medicine, doctor, and nurse the same. And if you die, your children have the same home, schools, food and clothing, and medical service until eighteen years of age."

Anniversaries.—The completion of forty years of statehood and fifty since the extension of United States laws into Oregon Territory, was celebrated in February by exercises in the Legislature, the army posts, and various educational institutions. The building in which the convention met in August, 1857, to frame the State Constitution is still standing in Salem.

Exposition.—The Oregon Industrial Exposition opened at Portland in September. It represented the natural products and manufacture of the entire north Pacific coast, and exhibited representations of some of its characteristic scenery.

Legislative Session.—The regular session opened at Salem, Jan. 9, and closed Feb. 18. T. C. Taylor was President of the Senate, and E. V. Carter was Speaker of the House.

Five amendments to the Constitution that were proposed by former Legislatures were approved, and will be submitted to vote in 1900. They are: Increasing the number of Supreme Court judges from 3 to 5; allowing woman suffrage; establishing regulations for reservoirs and water rights, and for granting right of eminent domain to irrigation and drainage companies; limiting city,

county, and school district debts to 5 per cent. of the valuation; and repealing the section that prohibits immigration of free negroes to the State, which is merely a dead letter.

Two other proposed constitutional amendments were approved, but will require action by the next Legislature before they can be submitted to the electors. These are: Providing for initiative and referendum concerning State measures, on petition of 8 and 5 per cent. respectively, and permitting referendum to be ordered by the Legislature; and removing the restriction that limits suffrage to white citizens, and providing that in addition to regular qualifications others in reference to residence may be required by enactment.

A law for registration of voters was one of the important measures of the session. Electors must register between the first Monday in January and May 15 with the county clerk or a notary or a justice of the peace. Foreign-born citizens must show their naturalization papers. The State was redivided into senatorial and representative districts.

County courts were authorized to declare un-navigable streams public highways for the floating of logs and timber, and to provide for their improvement and use. This act was pronounced unconstitutional, in so far as it authorizes the taking of private property for public use.

Several laws were made for the construction and preservation of good roads. Owners of vehicles used for heavy freight and in habitual use may secure rebates on their road taxes for four years by the use of wide tires; \$1 a year for each wheel of vehicles having tires at least three inches wide; and for those of four inches or more and so constructed that the front and rear wheels do not run on the same lines, a further rebate of \$2 for each vehicle. County courts may lay plank and corduroy roads, and authorize skid roads on county highways or roads of public easement. County convicts may be worked on highways, and State convicts on the roads between State institutions. In some counties it is permitted to levy a \$1.25 bicycle tax for side paths.

The privileges of the Soldiers' Home were extended to soldiers and sailors of the Spanish and Filipino wars.

Text-books for the schools are to be selected by a board of five commissioners appointed by the Governor, instead of by the State Board of Examiners and the county superintendents, as heretofore. Contracts as to price are to be made with publishers; and changes may not be made within six years. Agricultural college lands that have been subject to sale for twenty-five years are to be sold at \$1.25 an acre. It was provided that applicants for State certificates must take examinations and reach a general average of 85 per cent., not falling below 70 in any subject; and, in addition, must have had thirty months' successful teaching experience,

fifteen in the State. This conflicts somewhat with the privileges of normal-school graduates, who have heretofore been exempt from examination. Their normal practice in teaching is placed to their credit. A general school law was made, constituting the Governor, the Secretary of State, and the Superintendent of Instruction the State Board of Education.

The close season for salmon in the Columbia river system was changed at the special sessions of 1898, and other changes in the fish and game laws were made at this session. The office of Game and Forestry Warden was created—appointment to be by the Governor; deputy wardens were provided for, and general regulations adopted for protection of forests and game.

The Dairy and Food Commissioner is to be elected by the electors, instead of by the Legislature, and to serve for four years instead of two, as now. The pure food law was amended, and the adulteration of candy prohibited. A board of barbers' examiners was created.

An act amending the laws on management of State lands and one changing the duties and salary of the agent selecting lands given by the Government were passed. The Governor, Secretary, and Treasurer constitute a State land board.

The general law for negotiable instruments recommended by the conference of commissioners on uniform legislation was adopted. It was made unlawful to organize or employ armed bodies of men in any city, except those provided for by law. Other enactments were:

Creating the office of State Biologist, without salary.

Designating the Oregon grape, *Berberis aquifolium*, as the State flower.

Providing that insurance policies may be written only by resident agents.

Prohibiting the use of slot machines.

Creating a commission for the exposition at Paris.

Providing that mining claims, quartz or placer, shall be deemed real estate.

Amending the law for protecting trade-marks so as to prevent the use of second-hand packages to evade the law.

To prevent uninspected sheep from entering the State.

Providing that a sale in bulk of a stock of goods or wares may be presumed fraudulent unless the seller gives the buyer a list of his creditors.

The general and special appropriation bill carried items amounting to \$1,183,130 for the two years.

Mortgage Tax Liens.—The question came before a court in the State in May, whether a mortgage tax is a lien on the real property. The court decided that it is not, and that the mortgagor is not liable; the claim stands against the holder of the mortgage.

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PARAGUAY, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 13 members and a Chamber of 26 members, all elected by universal male suffrage. The President of the republic, whose term of office is four years, is Emilio Aceval, elected in 1898. Hector Carvallo is Vice-President. The Cabinet at the beginning of 1899 contained the following members: Minister of the Interior, Rufino Mazó; Minister of Foreign Af-

fairs and Colonization, J. S. Decoud; Minister of Finance, Felix de los Rios; Minister of Justice, Worship, and Public Instruction, Mateo Collar. A new Cabinet appointed by the President was composed as follows: Minister of the Interior, Guillermo de los Rios; Minister of Foreign Affairs and Colonization, J. S. Decoud; Minister of Finance, José Urdapilleta; Minister of Justice, Worship, and Public Instruction, G. Pereira Casal; Minister of War, Gen. J. A. Ecurra.

Area and Population.—The area of Paraguay is estimated at 98,000 square miles, and the population at 600,000 whites and 130,000 Indians. The number of foreigners living in Paraguay is estimated at 17,000, including 5,000 Argentinians, 2,500 Italians, 1,500 Spaniards, 1,250 Germans, 800 French, 600 Brazilians, 600 Swiss, 400 Austro-Hungarians, and 200 English. - The number of immigrants in 1898 was 337. Asuncion, the capital, has about 45,000 inhabitants.

Finances.—The revenue in 1897 was \$5,752,841 in currency, of which \$4,950,311 came from customs. The expenditures were \$8,346,179, leaving a deficit of \$2,593,338. The internal debt in 1898 was \$12,085,234. The foreign debts amounted to \$30,773,089, consisting of a debt to Brazil of \$9,876,466, a debt of \$13,423,423 due the Argentine Republic, an English debt of \$4,973,200, and treasury bonds for \$2,500,000.

Commerce.—The imports in 1897 were valued at \$2,203,459 in gold, and exports at \$12,908,299 in currency. The chief imports are textile fabrics, wine, and rice. About 85 per cent. of the textiles and 48 per cent. of the total imports come from Great Britain. The export of yerba maté, or Paraguay tea, was 6,547,642 kilogrammes, valued at \$5,475,633 in currency. The Government formerly owned the lands yielding this valuable product, but has disposed of them to foreign companies. Brazil now produces more of it than Paraguay. The export of tobacco in 1897 was 1,064,593 kilogrammes, valued at \$595,609 in currency; of hides, 169,490 pieces, valued at \$1,959,293; of timber, the value of \$1,164,162; of oranges, the value of \$146,485. There were 197 vessels, of 132,592 tons, entered at the port of Asuncion during 1897. The value of the imports in 1898 was \$2,608,487 in gold; exports, \$2,463,924.

A railroad to Asuncion has a length of 155 miles, and there are three lines of telegraphs, one along the line of the railroad, one of 210 miles to the Argentine frontier, and one of 125 miles from Asuncion to Concepcion. The number of dispatches in the internal service in 1897 was 15,691; in the foreign service, 37,273.

PENNSYLVANIA, a Middle State, one of the original thirteen, ratified the Constitution Dec. 12, 1787; area, 45,215 square miles. The population, according to each decennial census, was 434,373 in 1790; 602,365 in 1800; 810,091 in 1810; 1,047,507 in 1820; 1,348,233 in 1830; 1,724,033 in 1840; 2,311,786 in 1850; 2,906,215 in 1860; 3,521,951 in 1870; 4,282,891 in 1880; and 5,258,014 in 1890. Capital, Harrisburg.

Government.—The following were the State officers in 1899: Governor, William A. Stone; Lieutenant Governor, J. P. S. Gobin; Secretary of the Commonwealth, William W. Grist; Secretary of Internal Affairs, James W. Latta; Treasurer, James S. Beacom; Auditor, L. G. McCauley; Attorney-General, John P. Elkin; Adjutant General, Thomas J. Stewart; Superintendent of Instruction, N. C. Schaeffer; Insurance Commissioner, Israel W. Durham; Commissioner of Banking, Thomas J. Powers; Secretary of Agriculture, John Hamilton; Commissioner of Forestry, J. H. Rothrock; Dairy and Food Commissioner, Levi S. Wells; Zoölogist, H. T. Fernald; Factory Inspector, James Campbell; Veterinarian, Leonard Pierson; Librarian, George E. Reed; Superintendent of Public Buildings and Grounds, T. L. Eyre; Chief Justice of the Supreme Court, James P. Sterrett; Associate Justices, Henry Green, Henry W. Williams, who died Jan. 25, James T. Mitchell, J. Brewster McCollum, John Dean, and D. Newlin Fell; Prothonotaries, Charles S. Greene, William Pearson, and George

Pearson; Justices of the Superior Court, C. E. Rice, J. A. Beaver, J. J. Wickham, George B. Orady, P. P. Smith, William Porter, and Dinner Beeber, appointed to take the place of Howard J. Reeder, who died at the close of 1898. N. C. Schaeffer and Judges McCollum and Smith are Democrats; the others are Republicans.

Finances.—There is a deficit of more than \$3,500,000 in the State treasury. The decision of the Supreme Court in declaring unconstitutional the direct-inheritance tax law makes quite a serious reduction in receipts. On the other hand, the new charter bonus law adds materially to the revenue. It appears that the Carnegie Company alone must pay \$666,000. There is an increase from added liquor license fees of about \$600,000 a year. The new mercantile tax law will go into effect in 1900. The receipts for the year ending Nov. 3, 1898, were \$13,235,120.97; for the ten months ending Sept. 1, 1899, they were given as \$12,927,872.

The total amount of county debts reported by the Secretary of Internal Affairs is \$68,724,651. Philadelphia reporting \$58,971,995, and Alleghany \$3,282,058.

The value of real estate, as returned by the assessors, is \$2,814,545,927; this includes property exempt from taxation. The number of taxables reported for 1898 was 1,805,496, a decrease from the number of the previous year.

Education.—The whole number of pupils in the public schools at the last biennial report was 1,143,100; the average attendance, 864,626; the total expenditures, \$19,644,401. The Legislature appropriated \$11,000,000 for the schools for the next two years, but the Governor reduced it to \$10,000,000. The act lengthening the minimum school year to seven months affects about 200,000 children.

The Governor cut also the appropriation of \$260,000 for the 13 normal schools. A bill prohibiting school directors from fixing the salaries of county superintendents below \$1,500 was vetoed, and therefore the item of \$230,000 in the appropriation bill for their salaries was reduced to \$205,000. The appropriation to the State College was cut to \$55,551.90. The trade school of the Builders' Exchange in Philadelphia was closed on account of the disapproval of the appropriation for its support.

The graduating class in the School of Medicine of the university numbered 218. In the examination by the State Board of Medical Examiners, which is a prerequisite to practice in the State, 143 of the graduates were examined and one failed, the general average being 86 per cent. Of the women's college, 28 were examined, none failed, and the average was 81.22. Of the whole number examined (425) the failures were 52, and the average 80.94.

Charities and Corrections.—The provision for the insane appears to be wholly inadequate. The condition of the old buildings at the Harrisburg Asylum is described as horrible—rooms intended for one having two to four inmates, and the floors of the halls being covered with mattresses laid close together without any aisle space between. New buildings were provided for by the Legislature of 1897, but they were not begun till April, 1899. The other institutions for the insane are also crowded. Some of the counties are building asylums under the county care act of 1897, which provides that counties providing quarters for their insane on plans approved by the Board of Charities may take their own patients and receive from the State \$1.50 a week for each. They now pay \$1 to \$1.75 to the State

for each patient. The following sums for State institutions, in the appropriation bill, were approved by the Governor: Eastern Penitentiary, \$124,000; Western, \$126,000; Morganza Reform School, \$102,000; Huntingdon Reform School, \$160,800; for the care of indigent and chronic insane, \$1,500,000; soldiers' orphans' schools, \$361,200; cottage State hospital, Blossburg, \$20,000; cottage State hospital, Mercer, \$11,000; State Board of Charities, \$27,200; Institution for Feeble-minded, Polk, \$247,425; Asylum for Chronic Insane, Wernersville, \$3,000; Western Pennsylvania Institution for Deaf and Dumb, \$100,000; Western Pennsylvania Institution for Blind, \$55,000; Oral School for Deaf-mutes, \$51,500; Working Home for Blind Men, \$25,000; Adrian Hospital Association, Jefferson County, \$12,000; Bradford Hospital, \$6,000; friendless children, city of Lancaster, \$3,000; Home for Aged and Infirm Women, Easton, \$2,000; Children's Industrial Home, Harrisburg, \$4,000; Home for Friendless Children, Reading, \$2,000; Lancaster General Hospital, \$6,000; Pennsylvania Society for Protection of Children from Cruelty, \$2,000; Homeopathic Medical and Surgical Hospital, Reading, \$5,000; Reading Hospital, \$15,000; Harrisburg Hospital, \$7,000; Children's Aid Society, \$10,000; York Hospital and Dispensary, \$5,000; Training School for Feeble-minded Children, at Elwyn, \$21,000; Columbia Hospital, \$4,000; Spencer Hospital, Meadville, \$5,000; Frederick Douglass Memorial Hospital for Nurses, \$10,000; Easton Hospital, \$12,000; Home for Friendless, Harrisburg, \$2,500; Wilkesbarre City Hospital, \$25,000; Home for Friendless, Williamsport, \$5,000; Lackawanna Hospital, Scranton, \$30,000; Institution for Deaf and Dumb, \$240,000; Oil City Hospital, \$15,000; Mary Packer Hospital, Sunbury, \$8,000; Kane Summit Hospital, \$6,000; Good Samaritan Hospital, Lebanon, \$6,000; Home for Widows and Single Women, Lebanon, \$2,000; Conemaugh Valley Memorial Hospital, Johnstown, \$2,000; hospital for middle coal fields of Pennsylvania, \$40,000; State hospital for insane, Warren, \$45,000; hospital for insane, Norristown, \$71,000; hospital for insane, Danville, \$70,700; Cottage State Hospital, Connellsville, \$15,660.

Railroads.—About 189 miles of track were added to the roads in 1899. The returns to the Bureau of Railways show an increase of 20 per cent. in the number of employees over last year. There were 206,028 employees in the service of the steam railways at the close of the year, against 245,057 in 1898. There was paid out in salaries \$143,604,542. The motive power was furnished by 10,208 locomotives, and the number of cars in service was 474,492.

The total number of passengers carried was 161,444,854, an increase of 250,922,394 over the number carried in 1898.

Of the six classes of products shipped over the lines of the companies reporting, there was increase in all except the products of agriculture and the products of animals.

The gross earnings of the various lines of the Pennsylvania amount to \$132,869,470.

The Pennsylvania, Northern Central, Philadelphia, Wilmington and Baltimore, and West Jersey and Seashore Railroads, and the Philadelphia and Camden Ferry Company, have adopted a similar plan of pension allowances, and a similar policy of age limitation, to take effect on and after Jan. 1, 1900. The basis upon which pensions will be allowed is as follows: For each year of service 1 per cent. of the average regular monthly pay for the ten years preceding retirement.

The total income of street railways in the State for the fiscal year was \$22,509,256, an increase of nearly \$2,000,000 over that of the previous year. The operating expenses of the street railways for the year were \$10,519,810. There was paid in dividends \$9,133,647. The mileage is 1,493.21; number employed, 12,506.

Business.—The records of the State Department for 1899 show a much larger volume of business than was ever before transacted during the same time in the commonwealth. More charters of every kind were issued than during any previous year. The iron and steel business comes first in importance.

Labor.—There have been strikes during the year in Philadelphia, Pittsburg, Hudson, Nanticoke, in the Dubois region, and at the Homestead works, but all seem to have been conducted peaceably. Advances in wages have been announced in some prosperous industries.

Lawlessness.—The superintendent of construction of a coke company at Dunbar was shot and killed by a negro employee, Dec. 19. The murderer was pursued by an angry mob to the mountains and killed by a shower of bullets.

The Bird Book.—The ex-State printer brought suit to compel the Superintendent of Public Printing to approve the payment of \$55,662 for work on the famous "bird book" (see Annual Cyclopædia for 1898, page 619). Payment was refused on the ground that the book was not a reproduction of the original pamphlet, as ordered, and the court sustained the defendant. This is not all the trouble over the book. It is in great demand, and the allotment of copies to members of the Senate is not satisfactory, the Attorney-General having decided that the Senate's share belongs to the Senators of 1899, while it is claimed by those of 1897, the Legislature that ordered the publication.

General Hartranft.—A portrait statue of Gen. John Frederick Hartranft, Governor of the State in 1872-78, was unveiled on the Capitol grounds at Harrisburg, May 13, with fitting ceremonies. For a sketch of the general's life, see Annual Cyclopædia for 1899, page 634.

Legislative Session.—The biennial session of the General Assembly opened Jan. 3 in the new Statehouse; it closed April 20. William P. Snyder was President *pro tempore* of the Senate, and John R. Farr was Speaker of the House. On joint ballot the Republicans had 164 votes, the Democrats 84, and the Fusionists 6.

The term of United States Senator Matthew S. Quay having expired, it was in order to elect his successor; but the Republicans were divided, and adjournment was finally taken without any choice having been reached. A large number of the Republican members stayed away from the caucus where Mr. Quay was renominated, and refused to vote for him throughout the session. The balloting began Jan. 17, and on that day he received his highest vote, 112. The seventy-ninth ballot was taken April 19. The Democrats supported George A. Jenks. The Republicans opposed to Mr. Quay voted for John Dalzell, B. F. Jones, Charles Tubbs, George E. Huff, E. A. Irvin, John Stewart, C. W. Stone, C. E. Rice, G. A. Grow, Alvin Markle, C. E. Smith, J. E. Downing, Hugh R. Eastburn, and Messrs. Widener and Riter. The contest was most bitter, and was marked by several unpleasant episodes. The rulings of the presiding officer of each House were in turn sharply criticised by resolutions adopted by vote of the Democratic and independent Republican members. A committee was appointed to investigate charges of bribery or attempts at bribery in connection

with the senatorial contest, and the passage of the so-called McCarrell jury bill. This measure was for limiting the power of the prosecution to challenge jurors, and the charge was made that it was pushed at this time in order to aid in the acquittal of Mr. Quay in the trial that was about to come on. It was eventually defeated. The investigating committee brought in a majority and a minority report. The majority report recited at considerable length the testimony taken by the committee, and said the evidence disclosed that undue means were taken by many persons corruptly to solicit members of the House, both for the purpose of influencing their official action in reference to the McCarrell jury bill and in reference to their official action to the election of a United States Senator. This corrupt solicitation, the report said, consisted of offers of money, position, advantage, and political preferment. Nine persons were named against whom the committee recommended that legal action be brought. Some of those named are Republicans and some Democrats. The minority report was substantially in accord with the majority report. A committee was appointed to bring criminal proceedings; the Governor cut from the appropriation bill the \$5,000 designated for the expense of the prosecution. Several indictments were found after the close of the session, and the date of trial was fixed for January, 1900.

After the acquittal of Senator Quay in the trial for conspiracy with his son and ex-State Treasurer Haywood and J. S. Hopkins, for alleged misuse of State funds on deposit in the People's Bank of Philadelphia, he was appointed United States Senator by the Governor the same day, April 21.

Bills were introduced for increasing the revenues, with a view to providing for payment of the deficiency of \$3,500,000 in the State treasury, but most of them failed. One that became a law was the mercantile tax bill, which goes into effect in 1900. The former law called for taxes only on sales amounting to \$1,000 or over; under this there are no exemptions. Retail dealers must pay annually \$2 and 1 mill on their gross receipts; wholesale dealers \$3 and 0.5 mill; exchange and board of trade dealers, 2.5 mills. Mercantile appraisers are to be appointed in cities and counties. In addition to the present tax on their capital stock, express companies must pay 8 mills on their gross receipts.

Amendments were made to the laws on trial of contests. A committee of five members were appointed to confer with committees from other States with a view to securing an amendment to the Constitution allowing the election of the President, Vice-President, and Senators by direct vote of the people.

A commission was appointed to investigate plans for good roads legislation and report to the next Legislature. Provision was made for acquiring toll roads and bridges by local authorities, and for construction of side paths by townships. Bicycles may not be taxed more than \$1 annually.

A general law was made for reorganizing and regulating the National Guard.

Provision was made for inspection of fruit trees, vines, etc., and the destruction of those found to be diseased. An appropriation was made to enable the live stock sanitary commission to investigate the causes, treatment, etc., of diseases of domestic animals.

Among appropriations not noted elsewhere in this article were: For the Fish Commission, \$35,000; National Guard, \$775,000; reuniforming and

equipping the National Guard, \$98,000; for investigating diseases of domestic animals, \$6,000; Board of Health and Vital Statistics, \$12,000; Game Commissioners, \$800; Supreme Court library, \$4,000; salaries of officers and employees of the Legislature, \$72,078. Other measures were:

Making it unlawful for one not admitted to the practice of law to advertise himself as a lawyer.

Allowing a wife to testify against her husband in certain cases.

Establishing civil service rules for employees of police and fire department in cities of 100,000 to 1,000,000.

Authorizing the State Board of Health to take measures for preventing contamination of water supplies of cities of 1,000,000.

Giving officers of charitable institutions power to bind out children.

Prohibiting goods, except beer, mineral water, and milk, from sale in second-hand bottles.

Creating a bureau of building inspection, and establishing a law regulating the construction of buildings in cities of 1,000,000.

For adding to forestry reservation; increasing the power of the Forestry Commissioner to buy unseated lands.

Providing for license to manufacturers of and dealers in oleomargarine, butterine, and similar products, and requiring process butter to be plainly labeled as such.

Establishing a board of examiners of accountants, and requiring public accountants to be certified.

Providing for the appointment of 30 commissioners to the Paris Exposition.

Making appropriation for a commission to co-operate with the United States Geological Survey in a survey of the State.

Requiring that in counties of 500,000 or more transfers of real estate be registered with the county commissioners before recording.

Regulating the forming of partnerships of limited liability.

Providing that real estate may be sold on judgment to collect dower interest due to widows.

Making it a misdemeanor for candidates for the office of county superintendent to pay expenses of delegates to conventions for electing, and making provision for their expenses.

Establishing a library commission of five members, to be appointed by the Governor for terms of five years. They are to have general supervision and establish traveling libraries.

Requiring insurance risks to be approved in writing by licensed resident agents.

Two constitutional amendments were passed, but the Governor did not approve them. The Philadelphia Municipal League brought proceedings to compel the Secretary of State to advertise them, as required, sixty days before election, on the ground that the Governor's approval was not necessary. The judge refused the mandamus, holding that the approval of the Governor is required, as for any other act of the Legislature. One of the amendments proposed was to regulate the registration of electors, and the other provided for greater secrecy in voting, allowing the introduction of voting machines.

The law of 1897 providing for a direct inheritance tax of 2 per cent. on personal property above \$5,000 was declared unconstitutional, on the ground that the exemption violates the provision that taxes must be uniform on the same class of property. The law providing that parties to civil suits, except those acting in a fiduciary capacity, may dispense with jury trial, and submit to de-

cision of the court, was declared in violation of the Constitution in so far as the exemption of fiduciaries is concerned.

Trial of Matthew S. Quay.—The trial of Senator Quay on one of the indictments in which he was charged with conspiring with John S. Hopkins, B. J. Haywood (then State Treasurer), and R. R. Quay, his son, to use State money unlawfully (see *Annual Cyclopædia* for 1898, page 621) took place in April, and resulted in acquittal. Mr. Haywood, who was also under indictment, died Feb. 23.

Political.—A State Treasurer, two justices of the Supreme Court, and a justice of the Superior Court were to be chosen in November.

A Democratic State convention was held in Harrisburg, June 14-15. The resolutions were in accord with the position of the party on national issues. In regard to State affairs, they denounced the unnecessary increase of offices and salaries, favored revision of the tax laws, fair assessment of franchises, and ballot reform; and said further: "We denounce the indecent haste displayed in the disrespect shown the people by the Governor of the State in the appointment to the vacancy in the United States Senate of M. S. Quay, who, to prevent a full investigation before a jury of his country, pleaded the statute of limitations against the most serious charges of crime. In this appointment, in the unwarranted reduction of the appropriation to public schools, and his unauthorized veto of the constitutional amendment resolution he has violated the Constitution, usurped authority nowhere granted him, and perpetrated wrongs against the people and the State that demand his condemnation."

The nominations were: For Judge of the Supreme Court, S. Leslie Mestrezat; for Judge of the Superior Court, Charles J. Reilly; for Treasurer, William T. Creasy.

The Republican convention met in Harrisburg, Aug. 24. The platform approved the administrations of President McKinley and Gov. Stone, commended the State executive for his appointment of Mr. Quay to the United States Senate, and pledged the party to a reduction in the expenditures of the State government. The so-called anti-Quay delegates objected to the resolution commending Mr. Quay and thanking the Governor for appointing him after the Legislature had failed to elect a Senator; and, as the resolutions were voted upon as a whole, they voted against them. The ticket follows: For Judge of the Supreme Court, J. Hay Brown; for Judge of the Superior Court, Josiah R. Adams; for Treasurer, James E. Barnett. J. R. Adams withdrew Oct. 19, and Judge Mitchell was made the nominee.

The People's party nominated J. H. O. Stevenson for the Supreme Court, N. I. Atwood for the Superior Court, and Justus Watkins for Treasurer.

The Prohibitionists named Agib Ricketts for the Supreme Court, H. L. Robinson for the Superior Court, and John M. Caldwell for Treasurer.

The Socialist-Labor party filed the following nominations: For the Supreme Court, Edward Kuppinger; for the Superior Court, Harry C. Parker; for Treasurer, Hermann Kreimer.

Nominations were made also by the Union Reform and Antitrust parties.

The election resulted in the success of the Republican ticket. The vote for Treasurer stood: Barnett, Republican, 438,000; Creasy, Democratic, 327,512; Caldwell, Prohibitionist, 18,072; Watkins, Populist, 1,988; Clark, Socialist-Labor, 375;

Wood, Union Reform, 506; Creasy, Antitrust, 657.

As there were two vacancies on the Supreme Court bench to be filled, owing to the death of Judge H. W. Williams, Jan. 25, and only one could be voted for by each elector, the nominations of the two larger parties were equivalent to election; and J. Hay Brown and S. Leslie Mestrezat are therefore justices of the court.

PERSIA, an empire in central Asia. The power of the Shah, or Emperor, is absolute in so far as he conforms his acts to the precepts of the Koran and the principles of the Mohammedan religion. He has full control of the public purse and the power of life and death over his subjects. The reigning Shah is Muzaffereddin, born March 25, 1853, who succeeded his father, Nasreddin, May 1, 1896. The heir apparent, called the Valiahd, is Mohammed Ali Mirza, born in 1872. The Grand Vizier at the beginning of 1899 was Mirza Ali Ashgar Khan, appointed Aug. 11, 1898. The ministers were as follow: Minister of the Interior, Amin el Mulk; Minister of Foreign Affairs, Mushir ed Dowleh; Minister of War, Amir Khan Serdar; Minister of Finance, Nizam es Sultaneh.

Area and Population.—The area of Persia is about 628,000 square miles. The population is believed to be about 9,000,000. The chief cities are Teheran, the capital, with about 210,000 inhabitants; Tabriz, with 180,000; and Ispahan, with 80,000.

Finances.—The revenue is about 54,500,000 krans a year, equal at the present price of silver to \$7,500,000. About 18,000,000 krans are expended on the army, 10,000,000 krans for pensions, 5,000,000 krans for the Shah's household, 3,000,000 krans for allowances to princes, 600,000 krans for allowances to the royal Kajar tribe, 800,000 krans for foreign affairs, 500,000 krans for colleges, 1,500,000 krans for civil administration, 2,600,000 krans for local government, and the remainder is paid into the Shah's treasury. About 15 per cent. of the revenue comes from customs and 3 per cent. from posts and telegraphs, fisheries, mining concessions, etc., while 82 per cent. is assessed on towns, villages, and districts, and collected almost entirely from the laboring population.

The Army.—The standing army is about 24,500 strong. The effective war strength of the Persian army is estimated at 35,400 trained infantry, 3,300 irregular cavalry, 2,500 artillery, a camel corps of 90 men, 100 engineers, and 12,130 untrained levies.

Commerce and Production.—Wheat, barley, rice, fruit, and gums are staple products of Persia, and silk, of which 606,100 pounds are produced annually, besides 390,000 pounds of cocoons, valued at \$160,000, which are exported to Europe. Opium has been an important article of export for ages, and the annual shipments to Europe and China are now about 13,000 cases, valued at \$3,750,000. The annual exports of tobacco are 5,500 tons; of cotton, 9,934,400 pounds; of wool, 7,714,000 pounds. Persian rugs and carpets are sought for the European and American market. The mineral resources of Persia are great, but the mines supply only local needs. Copper, lead, silver, tin, gold, iron, manganese, cobalt, nickel, and sulphur are found, and near the south coast petroleum is found in abundance. The turquoise mines of Persia have supplied the world from ancient times, and about \$40,000 worth of the gems are sent out from Khorassan every year. Dates are the most important of all the exports, opium, wool, cotton, silk, carpets, pearls, tur-

quoises, and rice following in their order. The imports are cotton cloth, woollens, glass, carriages, sugar, petroleum, tea, coffee, drugs, etc. The value of the foreign trade is about \$45,000,000 a year.

By the new Russian customs regulations of 1895 a large part of the British and Indian trade with Khorassan has been supplanted by the trade in competing Russian products brought by the Transcaspian Railroad. When that railroad was completed to Samarcand in 1888 the Persian Government was induced to build a wagon road from Meshed to the frontier to meet one constructed by the Russians from the frontier to Ashkabad, the capital of the Transcaspian province, the total distance between the two towns being 160 miles. Before that mainly British goods were to be found in the bazaars of Meshed and other towns of Khorassan. Prints from the new cotton mills of Moscow and other Russian manufactures began to compete with them, and the trade was encouraged by subsidies given by the Russian Government. The British merchants nevertheless held their own, because the main part of their trade, which went by sea from Indian ports to Bandar Abbas, and thence by a road 870 miles in length, a forty days' journey, to Meshed, was the transit trade in tea destined for the markets of Bokhara and the other newly acquired Russian provinces of central Asia. In 1895 the Russian Government established customhouses along the frontier of Khorassan, and diverted the trade in green tea, constituting two thirds of the total British trade, from this route to that of the Transcaspian Railroad by admitting this tea when dispatched in transit to central Asia by way of the Black Sea, over the Batum and Baku route, at the same tariff rate as was levied on the frontier of Khorassan, which is three eighths of the regular Russian duty on tea. Russian imports into Khorassan increased in two years 56 per cent., while British imports in 1897 were 71 per cent. below those of 1895. The Indian Government has begun to make a caravan road from Quetta to Meshed, 1,090 miles. A road in northern Persia from Resht, on the Caspian, to Teheran has been built at great expense by Moscow merchants and the Russian Government. By agreement with Russia the Persian Government can build no railroads nor grant concessions for railroads before 1905. Russian sugar, cotton goods, glass, earthenware, candles, petroleum, and other imports have driven all others out of the markets of northern Persia. In the south of Persia the British still retain the bulk of the commerce. The total value of the commerce of the Persian Gulf in 1898 was estimated at £2,090,191 for imports and £1,217,804 for exports. The imports through Persian ports were only £148,132, and the exports £90,336. The imports from India were £995,336, and exports to India £483,286; the imports from Arabia were £202,127, and exports to Arabia £226,006; the imports from China were £13,723, and exports to China £212,047; the imports from England were £539,238, and exports to England £127,470. The exports of opium by the southern ports and land frontiers were £246,034 in value; of pearls, £241,938; of rice, £71,331; of shells, £52,738; of carpets, £48,639; of wool, £43,099; of dates, £39,366; of cotton cloths, £37,537; of almonds, £28,715; of drugs, £24,264; of tobacco, £23,192; of cereals, £20,733; of skins, £18,675; of gum, £14,927.

PERU, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 48 members and a House of Representatives containing 108. Every adult male citizen who is either married, master of a

trade, an owner of property, a taxpayer, or able to read and write has a vote for the members of the parish electoral colleges, who elect delegates to the provincial electoral colleges, who in turn elect the Representatives of the province in Congress, in the proportion of 1 to every 30,000 inhabitants or fraction exceeding 15,000, and, in conjunction with the other provincial colleges, the Senators representing the department, two if the department contains only two provinces and one more for every additional two provinces. Members of both houses are elected for six years, one third retiring every two years. The President is elected for four years by the direct vote of the people. Nicolas de Pierola was elected for the term ending Sept. 10, 1899. The Council of Ministers in the beginning of 1899 was composed as follows: President of the Council and Minister of Justice, Worship, and Public Instruction, Dr. José J. Loayza; Minister of Foreign Affairs, M. F. Porras; Minister of the Interior and Police, J. M. de la Puente; Minister of War and Marine, M. J. Cuadros; Minister of Finance and Commerce, I. Rey.

Area and Population.—The area of Peru is 463,747 square miles, not including the province of Tacna, area 8,685 square miles, occupied by Chili for twelve years under an agreement that the people should decide by a plebiscite whether the province should belong to Chili definitively or be restored to Peru. The population of Peru was 2,629,603, comprising 1,323,080 males and 1,306,523 females at the last enumeration, which was in 1876. This did not include uncivilized Indians, the number of whom is estimated at 350,000. The estimated population in 1896 was 4,559,550. Lima, the capital, had 103,956 inhabitants in 1891. About 20 per cent. of the Peruvians are of Spanish descent, 57 per cent. Indians, and 23 per cent. of mixed race.

Finances.—The budget for 1898 made the revenue 10,785,850 soles, the sole being equal to about 50 cents, and the expenditure 11,488,240 soles. Of the revenue 6,320,000 soles came from customs, 2,167,410 soles from taxes, 1,130,440 soles from the salt monopoly, 272,000 soles from posts and telegraphs, and 896,000 soles from various sources. Of the expenditures 364,370 soles were for Congress, 2,656,200 soles for the Ministry of the Interior, 644,760 soles for the Ministry of Foreign Affairs, 1,265,450 soles for the Ministry of Justice, 3,086,000 soles for the Ministry of Finance, 3,214,320 soles for the Ministry of War and Marine, and 257,140 soles for the Ministry of Public Works. The revenue for 1897 was estimated at 10,721,520 soles, and expenditure at 11,308,240 soles. There was a deficit of 876,588 soles at the end of 1896, and to cover this and the anticipated deficits of 1897 and 1898 the Government was authorized to raise 1,500,000 soles, and to arrange for the payment of this loan with the company which collects the taxes. The total internal debt in 1898 was estimated at 47,591,760 soles. The foreign debt consists of a 6-per-cent. loan of £11,141,580 and a 5-per-cent. loan of £20,437,580 raised in England in 1870 and 1872 for the construction of railroads, on which the payment of interest was suspended in 1876. With accumulated interest the debt amounted to £64,600,000 in 1890, when an arrangement was made to turn over to the bondholders for sixty-six years all the railroads, mines, guano deposits, and lands belonging to the Government. The budget estimate of revenue for 1899 was 11,852,000 soles, and of expenditure 12,600,000 soles.

The Army.—The regular army consists of 2,086 infantry, 622 cavalry, and 449 artillery;

total, 3,157 officers and men. The gendarmery numbers about 2,500 men.

Commerce and Production.—The staple products of agriculture are cotton, coffee, and sugar. The export of cotton in 1897 was 5,586 tons; of coffee, 1,239 tons. The production of sugar was 105,000 tons; of rice, 4,222 tons. Of cocaine 4,206 kilogrammes and of coca leaves 493,679 kilogrammes were exported, valued together at 1,173,066 soles. Indian corn is the common food crop. There are 187,000 acres of sugar lands along the coast, of which 95,000 were planted in 1897. In the public lands transferred to the Peruvian Corporation, 5,000,000 acres in extent and largely covered with forest, colonies have been established for the cultivation of coffee. Coca is cultivated in Otuzco province, where there are 2,700,000 coca trees. Tobacco and cocoa are other cultivated products, and the forests yield rubber, dyes, cinchona, and other medicinal plants. There are valuable guano deposits on the islands off the coast, which were seized by Chili after the war between the two republics, but have been given up to the Peruvian Corporation. Gold is found in nearly every province, and large quantities have been mined, but now the industry is chiefly confined to washings by the natives. The silver mines at Cerro de Pasco, Caylloma, Castrovireina, and Recuay are still productive. The value of the silver exported in 1897 was 4,580,000 soles; of silver sulphides, 3,500,000 soles; of various ores, 2,250,000 soles. The exports of gold, copper, and lead were 700,000 soles. Other mineral products are zinc, quicksilver, salt, and sulphur. Coal and petroleum are found also.

The total value of imports in 1897 was 18,004,048 soles; of exports, 31,025,382 soles. The greater part of the trade is with Great Britain and Germany. Sheep and alpaca wool of the value of £300,759 was imported into Great Britain from Peru in 1897; also sugar of the value of £425,661, raw cotton of the value of £157,213, and copper and copper ore of the value of £105,790. The principal articles of import are cotton goods, woollens, iron goods, and machinery.

The values in soles of imports from and exports to different countries and the port of Iquitos in 1897 were reported as follow:

COUNTRIES.	Imports.	Exports.
Great Britain.....	6,832,000	15,648,000
Chili.....	1,207,000	5,753,000
Germany.....	3,060,000	2,822,000
Iquitos.....	1,875,000	2,857,000
United States.....	1,647,000	1,898,000
France.....	1,307,000	1,181,000
Ecuador.....	73,000	1,208,000
Italy.....	653,000	36,000
China.....	568,000	33,000
Belgium.....	587,000	9,000
Colombia.....	84,000	452,000
All other countries.....	261,000	130,000
Total.....	18,004,000	31,025,000

Navigation.—There were 492 vessels, of 600,049 tons, entered at the port of Callao in 1897, and 503 vessels, of 618,677 tons, cleared, exclusive of vessels under 50 tons, of which 889, of 10,966 tons, were entered. At Trujillo the number entered of vessels above 50 tons was 284, of 446,520 tons.

The merchant marine consisted in 1896 of 36 vessels over 50 tons, having a tonnage of 9,953 tons, and 96 smaller vessels, of 1,246 tons.

Railroads, Posts, and Telegraphs.—The railroads have a total length of 924 miles, of which 800 miles belong to the Government and are being operated and extended by the Peruvian

Corporation. The cost of the railroads, including those built on the territory ceded to Chili, was \$180,000,000. The Government telegraphs have a total length of 1,400 miles, and those of the Peruvian Corporation a length of 533 miles. The number of dispatches in 1897 was 121,492. There are 2,300 miles of telephone wire.

The post office in 1897 forwarded 12,760,771 pieces of mail matter. The revenue was 259,478 soles; expenditure, 261,360 soles.

Politics.—In the election which took place in May, 1899, Eduardo L. de Romaña was elected President of the republic. Dr. Isaac Alzamora was elected first and Federico Bresani second Vice-President. A revolutionary movement was started by Col. Vizcarra, in consequence of which the Government closed temporarily the port of Iquitos. The insurrection was suppressed without difficulty, as it did not spread into other provinces. The Congress was opened by the retiring President on July 28. The budget for 1900 showed ample revenue to cover expenditure. Peru accepted the Washington postal convention. At the close of an exciting session on Aug. 14 the returns of the presidential election were approved. President Romaña was installed on Sept. 8. He appointed the following Cabinet: Minister of Foreign Affairs, Dr. Manuel Maria Galvez; Minister of Justice, Dr. Elodoro Romero; Minister of the Interior, Col. Domingo J. Parra; Minister of War, Capt. Camillo N. Carrillo; Minister of Finance, Mariano A. Belaunde; Minister of Public Works, Dr. Carlos Basadre Forero.

PHILIPPINE ISLANDS, an archipelago in the Pacific Ocean, formerly a colony of Spain, ceded to the United States by the treaty of peace signed at Paris on Dec. 10, 1898.

Area and Population.—The land area is estimated variously between 115,000 and 140,000 square miles; the total population between 8,000,000 and 10,000,000. A partial enumeration in 1887 gave 3,029,423 males and 2,955,701 females, not including 1,000,000 or more unsubjected natives. There are over 1,400 islands, including a great number of bare volcanic rocks. They extend from 5° to 21° of north latitude. The temperature ranges between 61° and 97° F. Luzon, the largest island, contains about 44,400 square miles; Mindanao, which is much less thickly peopled, 34,000; Samar, 4,800; Panay, 4,700; Mindoro, 4,000; Leyte, 3,800; Negros, 3,300; Cebu, 2,400. The Spaniards, who have been in possession since 1565, have imposed their religion and laws upon the people. There are more than 30 distinct races and languages. The bulk of the people belong to the Malay stock, which has largely displaced the Negrito aborigines. Chinese and Japanese traders and settlers have from early times infused their blood into that of the native races in the districts where they have resided. There is also some admixture of Spanish blood. The Spanish planters, merchants, and priests number altogether about 8,000; Chinese colonists perhaps 70,000. Some parts of the islands, still inhabited by semisavage tribes, have never been explored. The population of Manila, the capital and chief seaport, is about 250,000. Lipa had 43,408 in 1887; Bauang, 35,598; Batangas, 35,587; Laoang, 30,642.

Finances.—The official Spanish figures for the revenue in 1897 made the total receipts \$17,474,120, of which \$8,496,170 came from direct taxation, \$6,200,550 from customs, \$1,222,000 from monopolies, opium, etc., \$1,000,000 from lotteries, \$257,100 from rent of Government property, and \$298,300 from various sources. The total expenditure was given as \$17,293,889, of which \$3,566,528

were for the naval force, \$6,042,449 for the army, \$2,198,350 for government, \$1,393,184 for the interior, \$1,896,277 for justice, \$615,198 for education, \$74,000 for foreign affairs, and \$1,507,900 for the debt. The Spanish Government issued \$40,000,000 of bonds in 1897, which were guaranteed on the customs.

Commerce and Production.—The soil of the islands is of unsurpassed fertility, and agriculture is the main occupation of the people, yet only a ninth part of the available land is cultivated. The principal products are rice, maize, hemp, sugar, tobacco, cocoanuts, and cacao. Coffee was once a valuable crop, but insects have destroyed the trees. Cotton was also much grown formerly, and woven into cloth for domestic use until the British factory-made cloths were sent in at prices so low as to drive out hand-woven fabrics. Rice and corn are grown in Luzon and Mindoro in barely sufficient quantities to feed the people of the islands. The rice crop is about 765,000 tons, in addition to which 45,000 tons were imported from Tonquin and the Straits Settlements in 1894. There were also imported 8,669 tons of flour, two thirds from China and the rest mostly from the United States. Cacao is cultivated in Mindanao and other southern islands. The Visayas, comprising Cebu, Panay, Samar, Negros, Leyte, and Bohol, produce most of the sugar, of which 3,233,483 piculs of 140 pounds were exported in 1897, two thirds of it to China and Japan, the rest mainly to Great Britain and Australia. About a tenth of the crop is consumed in the islands. The export of hemp in 1897 was 1,804,576 piculs, of which nearly 44 per cent. went to the United States, 40 per cent. to Great Britain, and the rest to China and Japan, Australia, and the Continent of Europe. Hemp is grown in southern Luzon, Mindoro, the Visayas, and Mindanao, and is exported in bales from Manila. Tobacco is raised in all the islands, but the southern part of Luzon produces the greatest quantity and the finest grades. It is used in great quantities by the people, both men and women being smokers, but the best quality is reserved for export. During the rebellion in 1897, when the tobacco factories of Manila were short of hands, the exports of leaf tobacco were much larger than usual; those of cigars smaller. Of leaf 309,585 quintals were exported, of which 245,436 quintals went to Continental ports of Europe, principally to Spain, and 51,635 to Great Britain, nine tenths of it to be exported in a manufactured form to Sweden and other countries. The number of cigars shipped abroad in 1897 was 169,465,000, of which 58,420,000 went to China and Japan, 37,310,000 to India and the Straits Settlements, 30,500,000 to Continental Europe, 24,290,000 to Great Britain, 16,300,000 to Australia, 2,643,000 to the United States and Canada. Cocoanuts are grown mostly in southern Luzon. Copra is exported, and many uses are found for the various products of the coconut palm. Exports of hemp, sugar, tobacco, cigars, and sapan wood declined in 1898, but not so much as might have been anticipated from the disturbed state of the islands. China and Japan took more than half the sugar, Great Britain about a fourth, and the United States less than a sixth, the total quantity having been 177,695 tons, the bulk of which was shipped from Iloilo. The export of hemp was 794,206 bales, going mostly from Iloilo since the blockade of Manila, less than half to England, nearly the whole of the remainder to the United States. The import trade was not reduced in volume by the hostilities. The preferential tariff enjoyed by Spanish

goods having been abolished, the monopoly that Barcelona manufacturers were acquiring ceased, and English, American, and German goods came in. The blockade of Manila led to a great increase in the trade of the port of Cebu, mostly with Hong-Kong. The mineral wealth of the islands is supposed to be great, but nothing has been done to develop it on a commercial scale. There are deposits of coal, petroleum, iron, lead, sulphur, copper, gold, and platinum. The pearl fisheries of the Sulu Islands are valuable.

The value of hemp exports in 1897 was \$18,040,760 in silver; exports of sugar, \$12,928,000; of copra, \$4,462,920; of leaf tobacco, \$2,786,200; of cigars, \$1,694,600; of native fabrics, etc., \$1,000,000; of indigo, \$107,000; of coffee, \$96,100; of rope, \$63,400; of dyewoods, \$49,100; of guma, \$47,500; of skins, \$38,900; of pearl shells, \$27,800. The exports of coffee formerly amounted to \$4,000,000 a year. The imports consist of cotton goods, hardware, coal, kerosene, flour, and other foodstuffs. The foreign trade has been conducted mainly by British, German, American, and Belgian merchants. The currency of the country consists of Mexican dollars, of which the amount in circulation is estimated at \$25,000,000, not including \$6,000,000 in lighter dollars coined by the Spanish Government in 1897. There is about \$10,000,000 in subsidiary coins, and the Philippine Bank has \$2,500,000 of notes in circulation. Since the occupation by the United States army American gold has been introduced.

The railroad running north from Manila to Dagupan has a length of 120 miles. The cables from Manila to Hong-Kong and Iloilo and the land and submarine lines connecting the various islands have a length of 1,592 miles. The number of telegraph messages in 1894 was 157,573. The number of letters and postal cards in the internal service was 4,684,606; in the foreign service, 2,544,581. The commercial prospects of the archipelago are thus depicted in the preliminary report of the Philippine Commission:

"Rich in agricultural and forest products, as well as in mineral wealth, commanding in geographical position, the Philippine Islands should soon become one of the great trade centers of the East. New steamship lines, established since the American occupation, already connect Manila with Australia, India, and Japan. She will become the natural terminus of many other lines when a ship canal connects the Atlantic with the Pacific, and yet others will inevitably be attracted by the development of the Philippine coal deposits. The building of a short railway has recently developed the rice crop of the archipelago. It can not be doubted that under an efficient administration of domestic affairs commerce will greatly increase, and the United States will reap a large share in this. Manila, with the immunity which it has thus far enjoyed from that terrible pest, the bubonic plague, should become a distributing center for China, Siam, the Straits Settlements, Tonquin, Annam, and Australia. Our control means to the inhabitants of the Philippines internal peace and order, a guarantee against foreign aggression and against the dismemberment of their country, commercial and industrial prosperity, and as large a share of the affairs of government as they shall prove fit to take."

The Filipino Hostilities.—An insurrection against the Spaniards had broken out previous to the departure of Admiral Dewey's fleet from Hong-Kong for Manila, and Emilio Aguinaldo, the leader in the rebellion of 1896, was taken to Cavité on board the McCulloch and allowed to

land there on May 10, 1898, in order that he might organize an army for the purpose of weakening the Spanish power of military defense; yet no alliance of any kind was entered into with him by Admiral Dewey, nor was any promise of independence made to him then or at any time. When the Filipino insurgents began to attack the Spaniards their numbers were rapidly augmented by the militia, who had been given arms by the Spaniards to fight the Americans, all of whom now revolted and joined the rebels. The revolutionary forces rapidly made themselves masters of the whole island of Luzon, capturing all the Spanish garrisons and making captives of Spanish civilians and friars, excepting those that escaped to Manila, where the Spanish garrison remained quiet, closely invested by the intrenched line of insurgents, among whose officers were engineers and tacticians of the best European schools. All the Filipinos who had served in the Spanish army joined Aguinaldo's army, and these had already been taught to build shell-proof intrenchments, the trenches 5 feet deep, the parapets an equal height above the ground, all battened with walls of bamboo. On the arrival of the first detachment of American troops under Gen. Anderson Aguinaldo was requested to evacuate Cavité. When he did so he issued a proclamation promising independence to the Philippine people in the name of the United States Government. He had already declared himself provisional President of the Philippine Republic and Dictator, and had appointed a civil cabinet. The landing of American troops at Paranaque on July 15 would have been prevented by the revolutionary leader if he had had arms, and he determined to wait for the fall of Manila, enter the city with the American troops, secure the arms of the Spanish soldiers, and then force the Americans to evacuate the island. Meanwhile he incited the natives to hate the Americans and to place all possible obstacles in their way. When Gen. Greene camped on the shore before Manila and Gen. Merritt, avoiding all official communications with Aguinaldo, let him know that he wanted his front clear, the insurgents moved aside, though not without a fresh diplomatic effort of Aguinaldo to be recognized as an ally and head of a *de facto* Government.

The commander of the Spanish garrison and the American commander had a tacit understanding that the Filipinos should not be allowed to sack the doomed city. Hence the town was surrendered quickly after the attack began, before the Filipinos had begun to move, and the American troops rushed in and occupied every point of ingress and aided the Spanish soldiers in repelling the belated advance upon their intrenchments. Aguinaldo claimed the right to occupy the city and establish his headquarters in the palace of the captain general. He demanded possession of the church treasures, part of the captured public moneys, and the arms of the Spanish prisoners as his share of the spoils. When his demands were refused the feeling between the Americans and the insurgents became more strained, and all kinds of abuses were practiced by the insurgent troops, who committed assaults and robberies, and under the order of Gen. Pio del Pilar, the organizer and chief of the insurrection previous to the arrival of Aguinaldo, they kidnaped natives who were friendly to the Americans, and either killed them or carried them off into the mountains.

The terrorism practiced for the purpose of preventing affiliation with the Americans not only operated on the ignorant masses, but closed the

mouths of the intelligent, and the anti-American feeling was fed by the venal native newspapers. Sandico, one of the most ambitious of the revolutionary politicians, organized people's clubs in Manila and the neighboring towns and villages, the secret object of which was to foster hostility to Americans and cultivate national aspirations among the Tagals. The influence of these clubs was far reaching, and from their membership was recruited later the local militia, which was to attack the Americans from within Manila when the regular insurgent troops should begin an attack outside. The Filipino Congress decreed that every male above the age of eighteen and not in the Government service should serve in the revolutionary army. Meanwhile every blacksmith in Manila was kept busy forging bolos.

The conduct of the insurgent troops became so threatening and insolent that Gen. Merritt, whose force was very small compared with them, ordered their forces back. They complied in sullen anger, and Aguinaldo removed his seat of Government from Bacoor to Malolos, where the so-called Filipino Congress was convened. An open rupture with the Americans was not desired, because an American protectorate was deemed necessary for the oligarchy in republican guise which the half-breed Tagal politicians desired to set up. The future of the Philippines was still under discussion in the Peace Conference at Paris, and the leading Filipinos, fearing that the United States would withdraw from the islands, asked Aguinaldo to forward a letter to President McKinley praying him not to abandon the Filipinos, and asking him to define the form of government that he wished to establish. The Filipino Cabinet and many members of the Congress united in this request, but Aguinaldo kept back the letter on various pretexts. His ambition grew with the growth of the army. He endeavored to get Congress to transfer to him the power of declaring war, and urged an issue of bonds sufficient to provide \$1,000,000 for the purchase of arms and ammunition.

Aguinaldo and the military party had a plan for expelling the small American army by a single stroke. Gen. Pio del Pilar was to direct the rising in the city of the 10,000 militia, armed for the most part with bolos, which was to be simultaneous with a general attack of the investing army. No definite date was fixed, because it was desired that the first overt act of hostility should come from the Americans, so as to give the revolutionary Government a better standing in the eyes of foreigners. Whenever such act should occur the signal for an advance all along the line would be given by the sending up of rockets. Hence persistent attempts were made to provoke the American soldiers to fire. The insurgents were insolent to the sentries, and made continuous efforts to push them back and advance their own lines farther into the city. During this long and trying period of insult and abuse heaped upon the American soldiers constant submission was the only means of avoiding an open rupture. The Filipinos came to believe that the Americans were cowards, and boasted openly that they were afraid of them. The commanding general with great tact and patience held his troops in check. At last he made a final effort to preserve the peace by appointing a commission to confer with a similar body appointed by the commander in chief of the revolutionary army and arrive at a mutual understanding of the intent, purposes, aims, and desires of the Filipino people and of the people of the United States. The Filipino commissioners were either

unable or unwilling to define the aspirations of their people, and the conference broke up without results. Before they departed they were assured that no hostile act would be inaugurated by the United States troops.

The moment for the projected attack was at hand. Filipinos in the city who were on the side of the revolutionists were secretly warned to take refuge outside. At the same time the affronts offered to the outposts became more flagrant. The insurgents laughed at the orders of the sentries, menaced and insulted them, and actually assaulted the soldiers of the Nebraska regiment holding the east line, trying to push them back by force, so as to advance their line. On the evening of Feb. 4 an insurgent officer with a detail of men attempted to pass the sentinel guarding the west end of the San Juan bridge, who drove them back without firing. Later a considerable body of insurgents made an advance on the South Dakota outposts, which fell back rather than fire. About the same time the insurgents appeared in force at the east end of the San Juan bridge in front of the Nebraska regiment, and a lieutenant, who for several nights had attempted to force back the outpost and post his guard within the line, advanced with a detail, paying no attention to the challenge of the sentinel. Crayson, the sentinel, as they rushed upon him in the dark, fired his weapon, killing the officer, and the men returned the fire and then retreated. Immediately rockets were sent up, and the Filipinos began firing along the entire line.

As the result of the fighting of Feb. 5, when the Americans attacked the insurgents along the whole line and drove them out of their trenches with great slaughter, the United States forces within a few days occupied a line extending from Pasai on the south to Caloocan on the north, and extending far enough eastward to protect the water supply of Manila. Then came the attempted rising in the city on Feb. 22, when 500 insurgents entered and set fire to the district of the city known as Tondo. It was planned that the local militia should join in the attack. All the whites were to have been massacred, and some of the more fanatical of the revolutionists included the Spanish mestizos in the list of the proscribed. The prompt and vigorous action of Gen. Hughes, the provost marshal, rendered abortive the intended uprising, but for weeks a reign of terror prevailed. Incendiary fires occurred daily. The streets were almost deserted, the people remaining shut up in their houses, except those who had fled, comprising half the native population. Very few Filipinos had the courage to come out openly in favor of the Americans for fear of assassination, but those who did included among their number some of the best men of the city.

The American troops occupied only Manila when the army of Aguinaldo, which invested the city, began hostilities on Feb. 4, 1899. The Americans immediately took the offensive, and after clearing the vicinity of the rebels, killing about 500, wounding 1,000, and taking 500 prisoners in several days' fighting, with a loss of 57 killed and 215 wounded on their side, they began a campaign for the possession of the railroad line, carrying on at the same time desultory operations against the rebels south of Manila, who were cut off from Aguinaldo's army in the north when American gunboats were placed in Laguna de Bay and military posts stretched across the narrow part of the island. The Filipinos suffered heavily in the battle of Caloocan on Feb. 10.

Gen. MacArthur conducted a vigorous campaign against Aguinaldo's main army, which contested his advance from behind breastworks thrown up in endless succession athwart the railroad track.

Gen. Otis began the campaign with 13,000 men. Re-enforcements soon brought up his force to 22,000, and later to 40,000; but the constant withdrawal of regiments to be discharged and sent home kept the available fighting force down to about 30,000 on the average. The commanding general was handicapped by the fact that he had to conduct the campaign with volunteers, whose time expired during the operations. Nevertheless, his troops were uniformly successful in their attacks, for the Filipinos, who in their rebellions against Spain engaged readily in a hand-to-hand conflict with the Spanish soldiery, had such respect for the fighting qualities of the Americans that they made no attempts to break their lines, but invariably gave way after inflicting what damage they could from their rifle pits. The losses they inflicted were insignificant compared with those that the Spanish armies had suffered at their hands. On the other hand, their own casualties, except in the first bloody battles, when they dashed themselves recklessly against the American lines, hoping to win a victory, as they had occasionally over Spanish troops, were slight compared with those they had suffered in their campaigns with Spanish commanders, who aimed to strike terror by giving no quarter, slaying even the women and children, and who made their rear secure from treacherous attacks by stripping the country of inhabitants as they advanced or by compelling them to remain in their villages, killing all who were found on the roads without a pass. The treachery of the Filipinos, who hid their arms when the Americans occupied their country, and afterward attacked small bodies of men and supply trains moving along the line of communications, made the American soldiers more ruthless, but the orders to spare all non-combatants subjected them to this constant danger in the rear. The animosity of the Tagals, who alone formed the strength of the revolutionary army, was greater against the Americans than it ever had been against the Spaniards, who had ruled them and lived among them for ages, and impressed their customs, habits, and ideas upon the country. The report of the Philippine commissioners vindicates the American soldiers:

"We were fortunate in witnessing some of the many brave deeds of our soldiers. All that skill, courage, and patient endurance can do has been done in the Philippines. We are aware that there are those who have seen fit to accuse our troops of desecrating churches, murdering prisoners, and committing unmentionable crimes. To those who derive satisfaction from seizing on isolated occurrences, regrettable, indeed, but incident to every war, and making them the basis of sweeping accusations, this commission has nothing to say. Still less do we feel called upon to answer idle tales without foundation in fact. But, for the satisfaction of those who have found it difficult to understand why the transporting of American citizens across the Pacific Ocean should change their nature, we are glad to express the belief that a war was never more humanely conducted. Insurgent wounded were repeatedly succored on the field by our men at the risk of their lives. Those who had a chance for life were taken to Manila and tenderly cared for in our hospitals. If churches were occupied, it was only as a military necessity, and frequently after their use as forts by the insurgents had made it necessary to train

our artillery upon them. Prisoners were taken whenever opportunity offered, often only to be set at liberty after being disarmed and fed. Up to the time of our departure, although numerous spies had been captured, not a single Filipino had been executed. Such wrongs as were actually committed against the natives were likely to be brought to our attention, and in every case that we investigated we found a willingness on the part of those in authority to administer prompt justice."

The fact that there was a party in the United States opposed to the assertion of American sovereignty over the Philippine Islands inspired Aguinaldo with the constant hope that his Philippine Republic would in the end be recognized, and the expectation of establishing their dominion as the dominant race throughout the archipelago kept the Tagals generally faithful to him. It was the Chinese mestizos, the wealthiest class in the islands, who furnished the means and most of the leaders for the revolution,* through which they aimed to become the ruling caste in a military oligarchy and occupy a position similar to that formerly held by the Spaniards.

While the American army was still confronting the Spaniards in Manila Aguinaldo sent garrisons to seize the chief posts in Panay, Cebu, Leyte, and other islands, and impose taxes, which the people paid unwillingly. He made allies of the bandits in the mountains, who lived by levying tribute on the planters. When the American naval force was sufficiently organized vessels were sent with troops to take possession of the southern islands. The military force under Gen. Miller took Iloilo, after overcoming the resistance of the natives, on Feb. 11. On March 27 a naval expedition was sent to Cebu, where the natives welcomed the American flag. Negros also hailed American rule with joy. Smaller islands were occupied subsequently, and a force was dispatched to Mindanao, where the natives were besieging Spanish garrisons that could not get away.

The strong anti-American feeling was entirely confined to the Tagal provinces. These are Manila, Cavité, Laguna, Batangas, Morong, Bulacan, Nueva Ecija, Principe, Infanta, and Zambales, estimated to contain a total population of 1,500,000. But only in the first six of these, those immediately adjacent to Manila, was the sentiment prevalent, and even in these it was by no means universal, while in the other four it scarcely existed. Among the people of wealth and intelligence there existed everywhere a strong conservative element that was opposed to the war. In the remaining provinces of Luzon the Tagal rebellion was viewed at first with indifference, and later with dread. Throughout the archipelago trouble and hostility existed only at those points to which armed Tagals had been sent in considerable numbers. In general the machinery of government that was set up by the agents of Aguinaldo served only for plundering the people under the pretext of levying war contributions, while many of the insurgent officials were rapidly accumulating wealth. The administration of justice was paralyzed, crime of all sorts was rampant, and the rule of force was the only law. In the worst period of Spanish misgovernment the people were not so overtaxed, nor was the administration so disrupted, sinking into absolute anarchy in many of the provinces. From all sides petitions were sent to the American military governor to send troops to occupy the country and protect the people. But while Aguinaldo's army was in the field troops could not be detached for that purpose.

Aguinaldo protested against the intrusion of the Americans from the time that Gen. Otis, as military governor, first issued a proclamation asserting the sovereignty of the United States. The Filipino leader insisted that he returned to the islands on an American war ship solely in order to conquer the Spaniards and win independence; that Gen. Merritt had stated that the American forces had come to overthrow the Spanish Government and liberate the Filipinos; and that the American forces had recognized the object aimed at by the insurgents by co-operating with the Filipinos as belligerents and by publicly saluting the Philippine flag. In regard to the Spanish prisoners held by the insurgents, whose liberation the American Government undertook to secure as soon as possible, he refused to treat with the American authorities, on the ground that it would imply a recognition of their rights over Philippine soil. Their surrender to Spain would be conditional on the repatriation of all Filipinos in Spain or her African possessions, in the Carolines, Mindanao, Jolo, or elsewhere held as prisoners of war or condemned as traitors or revolutionists. The friars held as prisoners by the Filipinos he would only set free as the result of a direct understanding with the Pope through an apostolic delegate, the conditions being that decrees granting special privileges to the religious orders should be revoked and the rights of the secular clergy respected; that no friar should hold any parochial or diocesan charge, but only the native or naturalized Filipino clergy; and that bishops should be made elective. The insurgents did not trouble the Jesuits or the Benedictines, but the monasteries of the Dominicans and other orders were despoiled, supplying a great part of the funds by which the revolution was supported, and the friars were made captives and treated very harshly.

The assurance of Gen. Otis that the welfare and happiness of the Philippine people depended on the friendly protection of the United States had no effect upon Aguinaldo and the politicians associated with him nor upon the Tagals who expected under his lead to become the dominant caste on the islands. The Philippine commissioners appointed by President McKinley met with no better response to their proclamation of April 4, which warned the Filipinos that the supremacy of the United States must be enforced, and those who resisted would accomplish nothing except their own ruin, but promised them the amplest liberty of self-government that is reconcilable with just, stable, effective, and economical administration and compatible with the sovereign rights and obligations of the United States. The commissioners assured the Filipinos that their civil rights and religious liberty would be guaranteed and respected, and that all would have equal standing before the law; that honor, justice, and friendship forbid the exploitation of the people of the islands, the purpose of the American Government being their welfare and advancement. It guaranteed an honest and effective civil service, in which, to the fullest extent possible, natives would be employed. The collection and application of taxes and other revenues would be put upon a sound, honest, and economical basis; the public funds, raised justly and collected honestly, would be applied only to defraying the proper expenses of the establishment and maintenance of the Philippine Government and such general improvements as public interests demand, and local funds collected for local purposes would not be diverted to other ends; with such prudent and honest fiscal administration it was believed

that the needs of the Government would in a short time become compatible with a considerable reduction of taxation. The establishment of a pure, speedy, and effective administration of justice would eradicate the evils of delay, corruption, and exploitation. The construction of roads, railroads, and other means of communication and transportation, and other public works of manifest advantage to the people, would be promoted. Domestic and foreign trade and commerce and other industrial pursuits and the general development of the country in the interest of its inhabitants would be the object of solicitude and fostering care. Effective provision would be made for the establishment of elementary schools, in which the children of the people would be educated, and appropriate facilities would also be provided for the higher education. Reforms in all departments of the Government, all branches of the public service, and all corporations closely touching the common life of the people must be undertaken without delay, and effected conformably with common right and justice in a way to satisfy the well-founded demands and the highest sentiments and aspirations of the Philippine people.

The proclamation of the American commissioners, issued a month after their arrival on March 4, made a deep impression on thinking and public-spirited Filipinos. The insurgents raised the objection that the Spaniards had promised even more, and yet had done nothing. To meet the demand for deeds, not promises, the commissioners applied themselves first to the re-establishment of the law courts, which had been in suspension since the surrender of Manila. Early in June the Supreme Court was reopened by order of the military governor, with 5 Filipino and 3 American justices. Courts of the first instance and justice courts were established later, as soon as qualified and trustworthy Filipino magistrates could be found. This action greatly aided in the restoration of public confidence. Natives who had fled began to return to their homes, and inhabitants of other districts asked permission to come or to send their families in. The native population nearly doubled in two weeks, so that it was necessary to impose restrictions on immigration in order to prevent overcrowding. Among the refugees came men of intelligence from all over Luzon.

The American plan of campaign was first to divide the insurgent forces by advancing eastward from Manila along the Pasig river, opening up that stream and the Laguna de Bay to light gunboats that had been made. Gen. Thomas A. Anderson advanced up the river, occupying the three principal villages, and scattering the forces to the south of it, cutting them off from communication with the forces in the north. When he turned over the command of his division to Gen. Lawton on March 22 the Americans controlled the river and Laguna de Bay, and had cleared the country to the south for 20 miles. The second part of the plan of operations was to divide the forces in the north by advancing along the line of the railroad. This also was accomplished successfully. The insurgents were driven back from village to village and from the strip of territory between the railroad and Manila Bay into the fastnesses of the swamps and the mountains. From Manila they were driven back in all directions as far as there were troops to command the lines. But an extensive effective occupation of territory with the forces at the command of Major-Gen. Elwell S. Otis was impossible. Hence, although white flags were raised over every house in the vicinity of the camps,

covert hostilities were practiced when Americans were not present in force. Malabon and other places near the lagoons and rivers were captured with the aid of the light-draught gunboats. The insurgents as they retired were in the habit of setting fire to the places that they evacuated. The storming of the strong intrenchments at Malabon by the Oregon troops was a brave deed, costing 49 casualties. Its capture drove the insurgents back on Malolos, where Aguinaldo had established the seat of the revolutionary Government and his military headquarters. This, which was the last fortified position of the insurgents in the lowlands, fell also at the end of March. In the beginning of April Gen. Lawton occupied eight towns south of Laguna de Bay and captured gunboats of the enemy. His troops were then recalled by Gen. Otis, as the American forces were not numerous enough to hold this southern country and carry on active operations against Aguinaldo's main army. Gen. Lawton took command of a flying column sent to clear the Filipinos out of the jungle north of Manila up to the mountains and to Bulacan. The troops of the main Filipino army, commanded by Gen. Antonio Luna, took up a strong position before Calumpit, on the Rio Grande. They were engaged by Gen. MacArthur's division on April 24 and succeeding days. The Nebraska, South Dakota, and Iowa regiments advanced on their trenches over open fields under a galling fire, and the Nebraska and South Dakota men swam across the river to get at them. Two men of the Kansas regiment swam the river under fire from sharpshooters to fasten a rope by which two companies of infantry, led by Col. Funston, were brought across on a raft to enfilade the enemy's trenches. The Filipinos, who believed the river line of defense impregnable, hastily retreated, and their defense of the intrenchments beyond was feeble and dispirited, though up to this point they had fought stoutly and inflicted severe losses on the Americans. After the retreat from Calumpit Gen. Luna, by order of Aguinaldo, sent his chief of staff on April 28 to ask for an armistice until the Filipino Congress be convened for the purpose of deciding whether to continue the war or to make peace. Gen. Otis replied that he could not recognize the Filipino Government, and would only consider the complete surrender of the Filipino army. This was the second proposal from Aguinaldo to treat for peace, the first having been made at the beginning of hostilities. Their proposal of a cessation of hostilities for thirty days was declined, Gen. Otis replying that universal amnesty would be granted on the surrender of their arms by the insurgents.

Gen. MacArthur continued his advance along the railroad, driving the enemy from Apalit, Santo Tomas, and San Fernando, which had been the revolutionary capital after the fall of Malolos until the approach of the American army compelled a transfer to San Isidro. Gen. Lawton's column advanced simultaneously along a parallel line, capturing in succession Novaliches, San José, Norzagaray, Balinag, where large stores of food were taken from the retreating force of Gen. Gregorio del Pilar, which he drove before him to San Ildefonso and beyond in the direction of the rebel capital in the mountains, upon which Gen. MacArthur's division also intended to converge by way of San Luis, Candas, and Arayat. The army gunboats operating on the rivers cleared the country of insurgents west of his line of march. Gen. Lawton's rapid advance from Balinag gave the insurgents no cessation from fighting. One fifth of their force was incapacitated

before the taking of San Ildefonso. The whole population of the valley fled at the approach of the Americans, terrified by the tales of cruelty and barbarity that their leaders falsely charged against United States soldiers. Gen. MacArthur's forces remained encamped for some time at San Fernando until the railroad bridges could be restored. The rebel soldiers were invariably stricken with panic when the Americans approached within gunshot. They abandoned their trenches and threw down their rifles if they saw only a scouting party.

A proposal from Aguinaldo to treat for peace was brought to Gen. Lawton's camp, and an arrangement was made for Filipino commissioners to go to Manila to confer with the American Philippine commissioners. Gen. Lawton in the meantime pushed on first to San Miguel, then to San Isidro, and on May 17 attacked the insurgent force in the flank and rear and drove them out of the trenches and the town into the mountains, having given them no time to reconcentrate their scattered troops. The Filipinos had, however, removed their arsenal and supplies and the Spanish and American prisoners long before the appearance of the American advanced guard. The Spanish Government was willing to pay a ransom of \$7,000,000 for the release of the captured Spaniards, but the United States authorities would not consent to allow such a contribution to be made to Aguinaldo's war chest. The Filipino peace commissioners, some of whom were appointed from the residents of Manila, met the American commissioners on May 22. They again asked for an armistice until the Philippine people could be consulted. Aguinaldo was busily preparing for further fighting at the same time that the commissioners were treating. The first suggestion of peace had come after the fall of Malolos from prominent citizens of Manila, Spanish half-castes, who had supported the rebellion, but were not in full accord with the Chinese half-castes that supplied the brains and the money and expected to reap the benefits of the revolution. After the principles of the future American rule in the islands had been laid down in the manifesto of the American commissioners, the Spanish mestizos were said to prefer the system offered to the rule of their fellow-countrymen of Chinese descent. The influence of these citizens of Manila in favor of peace was insignificant, however, compared with that of some of the active promoters of the rebellion, sugar planters and large landowners, who now began to feel the strain of the pecuniary sacrifices they had made and to foresee possible ruinous losses from the failure of the insurrection. When the Filipino Congress met at San Isidro on May 5 this element was in the majority, and the result of the discussion was the appointment of 7 delegates to open negotiations with Gen. Otis on the basis of the proclamation of the American commissioners. Aguinaldo agreed, provided the terms to be obtained should prove satisfactory to the army. Gen. Luna, however, who was Secretary of War, and Mabini, the Secretary of State, were in favor of continuing the war. Some time before this Gen. Luna had taken over from Aguinaldo the command of the forces in the field, which made him at this juncture the master of the situation and the practical dictator. He concentrated the army at Tarlac, a strong position on the railroad about 20 miles north of San Fernando, the American advanced position, and laid plans to get hold of the persons of the peace delegates of the Congress. Two of these he beheaded, as Aguinaldo had beheaded the first influential citi-

zen of Manila who had gone to his headquarters to plead for peace, three of the delegates were induced to support Luna's views, and two escaped through the lines and reached Manila in safety. Gen. Luna then took upon himself the direction of peace negotiations, but they were apparently intended, like the previous proposal for a month's truce, to tide over the remainder of the campaigning season until the rains should completely paralyze the active operations of the American army. Before another campaign the Government could be reorganized, the demoralized Filipino army toned up at least to the pitch of guerrilla fighting, and perhaps the American nation would become tired of the attempt to subdue the insurrection. Luna's ambition to become dictator was defeated, and the ascendancy of Aguinaldo was restored.

An attack on the Spanish garrison at Zamboanga, on the island of Mindanao, determined the Spanish Government to withdraw the troops that had been left in the Philippines under Gen. Rios in the hope that they might aid in securing the release of the Spanish prisoners. Aguinaldo refused to treat with the Spanish general or with the American commander, and a Frenchman, M. Dumarais, who went into the rebel lines to negotiate, was killed by the Filipinos. Gen. Otis was obliged to detail troops to take the place of the Spanish garrisons when they abandoned Zamboanga and Jolo.

The Filipino peace commissioners learned at their interview with the Philippine commission that President McKinley purposed appointing, pending the lasting decision to be made by Congress, an American governor general, who should be assisted by a cabinet composed of Americans, Filipinos, or both, and that the judges of the courts to be nominated by the President might be either Americans or natives. There would be also an advisory legislative council to be elected by the Filipinos. The request of the Filipino commissioners for an armistice was denied. The activity of the American troops was, in fact, redoubled. While Gen. MacArthur was preparing to occupy cities south and west of San Fernando, Gen. Lawton drove the rebels westward from San Antonio, Cario, and Arayat, and, joined by Major Kobbe's column, which operated from gunboats on the Rio Grande, advanced to Santa Ana and Candaba on May 22. Gen. Luna's army meanwhile was melting away. In the country that the American troops passed through a temporary civil administration was inaugurated. The inhabitants of the provinces of Bulacan and Pampanga, losing their dread of Americans, returned to their homes. Some of the volunteer regiments, reduced to skeletons through casualties and sickness, were anxious to be relieved from duty at the front or to be sent home, but cheerfully continued their arduous work when informed that they would receive their discharge at the end of May.

Regular troops, set free by the reduction of the army of occupation in Cuba and Puerto Rico, were sent over to take the place of the disbanded volunteers. Gen. Otis informed the War Department that it was important that his command should not fall below 30,000 men. The Philippine generals had on their rolls at least 70,000 men. When any of them returned to their homes their places were taken in the ranks by others who had fought before and left the army for a time to resume their ordinary occupations. These were the volunteers, who were able to render aid and comfort to the insurgents even after resuming the garb of peaceful citizens and the character of *amigos*, and who often kept their arms in hiding,

to bring them out when occasion offered and join in an attack on some exposed place. The bulk of the army was not of such material, but was composed of regular soldiers, who had served in the Spanish regular army or in the civil guards. With the volunteers Aguinaldo could increase or reduce his army according to his requirements. He had, however, a limited number of rifles. Perhaps a third of his troops were armed only with bolos—long, sharp-edged knives ground to a point. This is the national weapon. It was sometimes effective against Spanish troops, but in fighting the Americans, after the first few battles, the insurgents were accustomed to fire from the safe cover of the trenches until the attacking line approached, and then run for the intrenchments farther back. The Americans usually deployed at 2,000 yards from the enemy's trenches, and then advanced under fire, stopping at intervals where cover could be found to pour in volleys. When the insurgents broke cover to abandon the fight or to take a stand behind other intrenchments in the rear the American soldiers stood up and fired as fast as they could, taking aim at individuals when near enough. In the earlier engagements the Filipinos held their trenches till the Americans came near, but they grew demoralized as the campaign went on and fled before the attacking force got within 500 yards. Not many were hit in the trenches, but a great many while in flight. The numerous bolo men in the ranks carried off the dead and wounded on litters, and whenever a rifleman was struck a bolo man seized his rifle and cartridges and became from that time a rifleman himself. Owing to these conditions, very few wounded or prisoners fell into the hands of the Americans, and no rifles. In the first fighting around Manila Filipinos who were wounded or who shammed death shot at Americans from the rear or struck them with bolos. This drove some of the soldiers to kill wounded men that they passed. Such a thing never happened after the war was carried into the open country, as the cause ceased; but *amigos* often acted treacherously, and the deceitfulness of the natives led the Americans to despise the character of the Filipinos in general and to disregard often the rights of noncombatants. Houses were burned until the orders against it were strictly enforced, because the troops were often fired upon from houses flying white flags or from rifle pits underneath them. The exceedingly humane and conciliatory policy enjoined upon the military authorities by instructions from Washington seemed wrong to the volunteers, and deterred a great many from re-enlisting. Of looting there could not be much, except when Manila surrendered and when Pasig was captured by surprise in February by Gen. Wheaton's flying column, or when Iloilo or some such place capitulated. In the Luzon campaign the towns were abandoned, often burned, and everything of value was removed before the troops entered them. Later the inviolability of private property was strictly enforced by a provost marshal's guard whenever a town was captured. When the rebel troops began to disintegrate after Gen. Lawton's vigorous campaign and Gen. MacArthur's advance to San Fernando, Gen. Otis offered \$30 in silver to every rebel who would surrender and bring in a serviceable rifle. Very few rifles, however, were delivered. Aguinaldo offered \$60 for every American rifle, and a good many were stolen.

Toward the end of May Gen. Luna's soldiers appeared in force before San Fernando and began to attack the American outposts, inflicting only

slight losses. An ineffectual attack was made by about 8,000 insurgents under Gen. Mascardo, who held an intrenched position at Bacolor. The Macabebes were friendly, and after the gunboats under Capt. Grant were placed in the Rio Grande river a corps of them was enlisted for service under the American flag against the Tagals.

During May there was a tacit truce along the south line of the American occupation. In June the insurgents became aggressive again in the south. Gen. Pio del Pilar gathered together a considerable force, which Gen. Otis planned to surround by a rapid expedition under Gen. Lawton early in June. The city of Morong was occupied and garrisoned, but the enemy retreated to the hills. A second expedition was sent to clear them from Cavité province. Intrenched on hills and screened by woods, they were attacked on June 10 by 4,500 Americans, and resisted desperately. They were driven at last from the shores of the bay and the vicinity of Paranaque and Laspinas, retreating southwestward. A further advance in the direction of Bacolor was fiercely opposed at the bridge over the Zapote river. Gen. Lawton continued his march to Imus, having already killed, wounded, or captured a third of the insurgent force, numbering 4,000 men. The navy aided by shelling the enemy's trenches and landing forces on the shore of the bay. When Gen. Lawton reached Imus the rebels had abandoned it and fled to the mountains. Among the numerous captives taken in this expedition were soldiers dressed in the ordinary white dress of civilians and soldiers in uniform who carried such a costume in their knapsacks.

The rains now made active operations difficult. Troops were withdrawn from many posts that they had occupied, but other towns were still held, and the American lines extended 60 miles north, south, and eastward into the Laguna province. The insurgents were scattered, and had at no point a force exceeding 4,000 men. The civil courts were organized at Manila in June under the ablest of the native jurists, assisted by American lawyers. Municipal government was established in important towns of Manila and Cavité provinces. Several ports in southern Luzon and in Leyte and other islands were opened to trade. In the southern islands a general disposition to welcome American sovereignty was manifested.

The people of Negros, who accepted willingly the American occupation from the start, had a draft constitution made to submit to President McKinley. It was copied from the California State Constitution, Col. J. H. Smith, of the California volunteers, the military commandant, having been consulted. Gen. Otis ordained instead a provisional scheme of government prepared by the Philippine commissioners, with a military governor in supreme control, an adviser called the civil governor, elected by the natives under a property or educational qualification, an advisory council presided over by the civil governor, secretaries in charge of the departments of the treasury, interior, agriculture, and public instruction, judges appointed by the military governor, and a system of revenue and taxation to be devised by the civil governor and the advisory council, but all the executive and legislative authority vested ultimately in the military governor. The American force in the island was employed in punitive expeditions against the Babylanés, fanatical brigand hill folk who were in league with Aguinaldo. The Tagal emissaries had not been received by the people of Negros, nor any troops suffered to land. After the fall of the Spanish power they set up an independent

government of their own, with an elective governor and congress, at the same time raising the American flag and asking for a battalion of American troops to hold the Babylanes in check. Gen. Otis permitted them to proceed with their experiment in self-government, sending two additional battalions when the Babylanes became more troublesome. The men of the Sixth Infantry, led by Lieut.-Col. Byrne, on Aug. 31 dashed up a steep and bare mountain slope, while the bandits fired rifles and rolled down stones upon them, to storm the stronghold of Argongula, the chief arsenal of the Babylanes. After several months' trial the Negros people, who are among the most civilized and prosperous of the islanders, became dissatisfied with the liberal constitution they had first adopted and requested the Americans to take control of the administration, complaining that the commander of the native forces dominated the governor and that the officials were corrupt. After the military commandant assumed control of the administration public order was better maintained and the people were satisfied.

During the rainy season Gen. Hall, with troops landed from transports, took Calamba, a town on Laguna de Bay which aided the insurgents' communications. This place was held, and expeditions on boats were sent against several places on the shores of the lake where rebel troops were gathered. The rebels harassed the troops at San Fernando to such a degree that on Aug. 9 Gen. MacArthur's whole force of 5,000 men, except a guard of 600 left at San Fernando, advanced on Angeles, a more favorable base of operations than San Fernando. The main body of the insurgents, numbering about 6,000, was encountered, but was forced back on Porac. Armoured cars shelled Bacolor, and a feint toward Mexico led the enemy to evacuate that place. Calulut was made the camp until artillery could be brought up through the deep mud. The attack on Angeles was made on Aug. 16 by Col. Smith, who with the Twelfth Infantry and two guns drove 2,500 Filipinos from their newly made trenches and took possession of the town, with a loss of only 2 killed and 12 wounded. The objective of the new advance was Tarlac, now the revolutionary capital. When the new movement was begun Aguinaldo, who had obtained fresh funds, stirred up sedition again in Manila and the southern provinces and caused frequent attempts to be made to cut the railroad. He also strengthened his garrisons in the southern province of Vicol, and ordered an attack on the Americans in Imus.

Gen. Luna's order to the natives to fire their towns and flee before the advancing Americans was intended to prevent the reorganization of industry and the acceptance of American control, and as long as the people believed the tales of cruelty and outrage told against American soldiers they were generally glad to escape, taking their portable possessions with them. Those who were unwilling to leave their homes were driven out by the insurgent soldiers, who burned their houses. This method of procedure, eminently successful at first, in the end recoiled on its authors, provoking so much opposition that the obnoxious order was revoked. Nearly all the inhabitants returned to their ruined villages, rebuilt their houses, and began to cultivate the fields that had lain fallow for three years. Municipal government was organized in Bulacan province after the rebels had evacuated it, and under the protection of the American troops the people not only had peace and security, but enjoyed a de-

gree of participation in their own government that was unknown in the history of the Philippines. The system of municipal government proclaimed by Gen. Otis in general orders, after it had been elaborated by the Philippine commission with the assistance of native lawyers, was first put in practice in the towns of Cavité province occupied by Gen. Lawton's forces as the result of his vigorous campaign in June. The public sentiment had greatly changed in these places. Instead of abandoning or burning their homes, most of the people quietly awaited the arrival of the Americans. The mayor of Imus even requested the troops to occupy his town. Those who fled quickly returned. The insurgent forces had so pillaged and maltreated them that there was general satisfaction that the Americans had come at last, and when they came they distributed food among the starving people. The towns of Bacolor and Imus were selected for the purpose of testing the project of municipal self-government. In each place there should be a municipal council, composed of a president of the municipality and a head man from each ward, which would have authority to adopt ordinances, subject to the approval of the commanding officer of the occupying troops, the president, elected by the residents and approved by the commandant, to be the executive chief of the municipality and the examining magistrate in criminal cases, which would be tried by the provost court. The natives were so unfamiliar with the principle of popular representation that they asked the American commissioners to tell them for whom they should vote. When the new system was got into operation it worked fairly well and was liked by the people. Elections were held in Laspinas and Paranaque also. In Manila Gen. Otis established a system of public schools in which English was taught, and soon 6,000 pupils were in attendance.

Gen. Bates began negotiations in August with the Sultan of Sulu, who accepted Spanish sovereignty in 1878, but wished now to reassert his independence, and objected to flying the American flag or to having an American garrison in his dominions, though willing to acknowledge an American protectorate. Gen. Bates offered to continue the subsidies paid by the Spanish Government, \$2,400 to the Sultan and \$2,500 to his heir and the ministers, to leave his authority unimpaired, to allow him to retain the pearl fisheries and the control of trade. The town of Jolo, which the Spaniards built, was occupied by an American garrison of 800 men. In Mindanao the Filipino insurgents held the towns of Zamboanga and Mercedes, their force numbering 500 men with rifles, until Commander Very, of the Castine, arrived on Nov. 18 with 100 men from the Jolo garrison, having been invited by the inhabitants of the towns and Dato Mandi, the principal Moro chief. Alvarez, the Tagal commander, surrendered the posts to the Americans, who promised the inhabitants that they should be allowed to carry arms and to practice the Catholic religion and follow their native laws and customs, and be exempt from taxation until they have recovered in a measure their former prosperity. Gen. Hughes landed at Iloilo to clear Panay of rebels, who were intrenched in the neighboring towns of Jaro and Molo. The American troops found these places deserted, but with rapid marches pursued the fleeing rebels, forced a fight at Passi, captured 10 cannon, and chased them in detached bands into the mountains. The principal towns were garrisoned by the men of a volunteer regiment. Another regiment was sent to garrison posts on the Mindanao coast. Panay was the

only island to which a considerable force of Tagal soldiers had been sent. In Samar, Leyte, and Masbate the Tagal invaders were few, and they were disliked by the Visayan natives, whom they had oppressed. In Bohol, Mindoro, the Calamianes Islands, and Palawan the Americans were invited and welcomed by the native population. In Cebu and Negros it was only the lawless and barbarous mountain brigands who had been accustomed to plunder the plantations that entered into an alliance with the Tagal revolutionists. The small islands of Sibutu and Cagayan, near the coast of Borneo, were seized by order of Rear-Admiral Watson without objection from the authorities of British North Borneo.

Gen. Otis issued an order forbidding further Chinese immigration into the Philippines. Against this the Chinese minister in Washington emphatically protested. The Filipinos were opposed to the competition of Chinese laborers, who were coming in unusual numbers. The insurgents had a 6-inch Krupp gun mounted at Olongapo, in Subig Bay, and with their remarkably accurate firing they beat off an attack by the cruiser *Charleston*. On Sept. 24 the town was bombarded and burned by four ships, and a landing party destroyed the gun. The insurgent forces from Porac made an attempt to drive the Americans from Angeles with the aid of their artillery. On Sept. 28 a general advance on Porac was made by Gen. Wheeler from Santa Rita and Gen. Wheaton from Angeles, Gen. MacArthur commanding the entire operation. The insurgents, though strongly intrenched, made a poor defense, the movement of the American troops having been skillfully masked.

At the beginning of the new campaign Aguinaldo released 14 American prisoners that he held, and also the civilians and the sick soldiers among the Spanish prisoners. A Spanish commission went to Aguinaldo's headquarters for a conference regarding the release of all the Spanish prisoners. Another Filipino commission went to Manila with tentative proposals for peace, on the condition of independence under American protection. The Filipino Congress was now anxious for peace. Mabini, the irreconcilable head of Aguinaldo's Cabinet, was replaced by Paterno, the former mediator between Aguinaldo and the Spanish Government. Aguinaldo, however, still looked to the anti-imperial party in America to help him realize his ambition, and thus the commissioners came instructed to demand national independence. The American commissioners assured the delegates of as ample liberties as were consistent with the ends of government, subject to the recognition of American sovereignty. Gen. Otis declined to receive any proposition but that of the grounding of arms. The recognition of the revolutionary Government was out of the question. In the early days of October the insurgent forces in the south delivered vigorous attacks upon Imus and Calamba with the aid of artillery. A column under Gen. Theodore Schwan began operations in Cavité province, capturing Novaleta with the help of the marines, and Old Cavité, San Francisco, and other places. During the whole campaign, from Jan. 1 to Nov. 1, 1899, the losses of the American army of about 30,000 men were 477 killed in battle and mortally wounded and 366 dead from disease, making the total deaths 843. When the rainy season came on the sick list rose to 12 per cent. The annual death rate was only 17.2 per 1,000. The number of Filipinos killed, incapacitated, or captured during the campaign was estimated at 10,000. Of the volunteers in the Philippines,

about 2,500, a sixth of the total number, re-enlisted, and with newly enlisted men were organized into a brigade. Ten new regiments of 1,000 men were enlisted in the United States for service in the Philippines. The force in the Philippines in November numbered 905 officers and 30,578 men.

The additional troops that had arrived during the rainy season made the army strong enough to hold important towns that were captured and still leave large forces for field operations. A northward advance by Gen. Lawton and Gen. MacArthur was begun also. On Nov. 12 the American troops, which had reached Bamban, advanced upon Tarlac, passing through Capas, Murcia, Tayug, and San Quentin. Only small bodies of insurgents were encountered, and in the evening Col. Bell's force entered the deserted rebel capital. Aguinaldo had fled to Bayombong, where he hoped to establish the semblance of a government. The men of wealth and influence who supported the cause had fallen away. The insurgent army was broken up. A force of 1,200 attempted to make a stand at San Jacinto, and was routed by the Thirty-third Volunteers, though Major John A. Logan and 6 men were killed. All the lowlands, the populous, rice-growing country, whence the food supplies and the men were obtained for the revolutionary army, the United States forces occupied completely, with the exception of the districts south and east of Manila, where the insurgents were busy once more. In the valley of the Cagayan, the tobacco-growing region, Aguinaldo had little support, and on the mountains on either side his troops could find refuge, but scarcely any food supplies. The columns of Gen. Lawton and Gen. Wheaton attempted to catch Aguinaldo, but he eluded pursuit. The Treasurer and Secretary of the Interior of the revolutionary Government and the president of the Filipino Congress were captured or gave themselves up. The generals and their troops in small bands scattered through the provinces to act as banditti or concealed their arms and assumed the rôle of *amigos*. The Tagals on the island of Panay, numbering about 2,000, renewed their activity just before the flight of Aguinaldo, but the outbreak was quickly suppressed. The Visayans who inhabit the island were friendly to Americans. The scattered bodies of insurgents in northern Luzon, the broken remnants of Aguinaldo's army, were hunted down by the American columns. Gen. Lawton's troops captured money and deserted Spanish prisoners near Tayug on Nov. 25. Gen. Wheaton's troops scattered a force near Dagupan, capturing cannon and ammunition and recovering Spanish and American prisoners. Over 50 pieces of artillery were captured within three weeks. On Nov. 29 the rump of the Philippine regular army, commanded by Gen. San Miguel and Gen. Alexandrino, was surprised by Col. Bell's force in the mountains south of Lingayen. The Americans routed the enemy and captured all the stores and artillery, including rifles of various patterns, Nordenfeldt, Krupp, Maxim, and Hotchkiss guns, and a great quantity of ammunition in an arsenal and powder mills, which were destroyed. Aguinaldo with about 1,000 men fled before Gen. Young's column to Bangued, a mountain town in the west. Bayombong was occupied on Nov. 28. Major Peyton C. March with 300 men followed a trail taken by Aguinaldo over the mountains, and in Tilad pass came upon barricades which were defended by Gen. Gregorio del Pilar and 60 men of Aguinaldo's bodyguard until all but 8 were killed or wounded. The ports of Subig Bay, Cavité, and Aparri were

occupied by naval detachments, and military garrisons were stationed in Iba, Lingayan, Dagupan, and Vigan. In the interior garrisons were left in the principal towns along the routes followed by Gen. Lawton, Gen. MacArthur, and Gen. Wheaton. The provinces of Bulacan, Nueva Ecija, Pampanga, Bataan, Zambales, Tarlac, and Pangasinan were practically dominated by them. When additional troops arrived in December other ports were occupied and opened, allowing the trade in hemp and other products to be resumed. An expedition into the mountains of the north-west in search of the captive sailors of the Yorktown and Urdaneta was successful, and all the survivors, including Lieut. J. C. Gilmore, were brought down to Vigan. The ports of the Philippines were declared open to commerce on Dec. 11.

Although the Philippine army was utterly dispersed and Aguinaldo a fugitive, the rebels of the south who had first started the insurrection were determined on making another desperate effort to discourage the Americans. They fought fiercely in small bodies, employing guerrilla tactics, and Gen. Lawton met them successfully with skirmishing methods used in warfare with the American Indians. Gen. Wheaton and Gen. Schwan co-operated with flying columns, and where the army went a post was established in every town. On Dec. 19 Gen. Lawton, who in every battle had exposed himself to the hottest fire, was killed in an insignificant action at San Mateo, struck by a rebel sharpshooter.

The Philippine commission consisted of J. G. Schurman, George Dewey, Charles Denby, and Dean C. Worcester. The commissioners returned to the United States and submitted their preliminary report to the President on Nov. 2. They concluded from their investigations that the Filipinos are not a nation, but a variegated assemblage of various tribes, and their loyalty is still of the tribal type. The multiplicity of tribes, the diversity of languages, mutually unintelligible, and the multifarious phases of civilization, ranging from the highest to the lowest, and the utter want of experience and training in self-government disqualify the natives for the task of governing the archipelago at the present time, in spite of their domestic virtues and their intellectual capacities of a high order, though these capacities have been developed by education and experience only in a limited number of persons, the mass of the population being uneducated. The most that can be expected of them, in the view of the commissioners, is to co-operate with the Americans in the administration of general affairs from Manila as a center, and to undertake, subject to American control or guidance, the administration of provincial and municipal affairs. As education advances and experience ripens the natives may be intrusted with a larger and more independent share of government, self-government, as the American ideal, being constantly kept in view as the goal. Should American power be withdrawn, the commissioners believe that the government of the Philippines would speedily lapse into anarchy, which would excuse, if it did not necessitate, the intervention of other powers and the eventual division of the islands among them. Only through American occupation, therefore, is the idea of a free, united, and self-governing Philippine commonwealth at all conceivable.

PHYSICS IN 1899. Constitution of Matter, Ether, etc. Properties of the Ether.—Fessenden, in a paper (American Association) on the nature of electricity and magnetism and certain constants of the ether, points out the value of dimensional formulæ in the discussion of

physical problems, and takes up the question of the fundamental relations between certain optical properties and certain electro-magnetic properties of the ether. He notes that three formulæ exist for the relation between four quantities, and that consequently the equations can not be solved by the ordinary method. A fourth relation must be obtained, and then by a discussion of the dimensions of the quantities involved it becomes possible to make certain hypotheses. Two of these are shown to be the most probable, and then experimental observations are called in to determine which of these is preferable. A large mass of experimental observations on the relation between permeability, density, specific inductive capacity, and certain optical constants of a long list of substances leads to a choice between the two possible formulæ. It is thus possible to deduce values for the elasticity of the ether, as well as its density, and also, by constructing the dimensional formulæ for the magnetic quantities, to visualize the nature of magnetic quantities.

Gravity.—Burgess (Paris Academy of Sciences, Aug. 21) modifies the Cavendish method of determining the Newtonian constant by suspending in a mercury bath the weight that is supported by the torsion thread. In this way a mass of lead weighing 2 kilogrammes can be supported on a torsion wire of bronze or platinum only 0.05 millimetre in diameter. The sensibility of this device is very great, the shifting of the large attracting mass of 10 kilogrammes by 40° turning the torsion system through about 12°. The chief difficulties are connected with the necessity of maintaining the temperature of the mercury and with the fluctuation of its surface tension.

Unit of Time based on Gravitation.—Lippmann (Journal de Physique, August) proposes the adoption of an absolute measure of time based on the Newtonian constant of gravitation. This constant is independent of the units of length and mass, and is of dimension "minus two" in time, and could be used as an absolute time unit equal approximately to 3,862 mean-time seconds. As all this involves the assumption that the units of mass and volume are the same, the proposal amounts to the adoption of a unit of time based on the recognition of water as the substance of unit density.

Objectivity of Energy.—Lodge (Philosophical Magazine, XLVI, p. 414) holds that energy has all the marks of objectivity. He states the following among other propositions: "Stresses exist solely in the ether"; "the ether as a whole is at rest, and velocities referred to it are absolute"; "the two fundamental forms of energy are distinct and possessed by different bodies—viz., potential by ether, kinetic by matter—hence whenever there is transference there is transformation," and *vice versa*.

Mechanics. Inertia.—From experiments with mercury and gelatin Barus (Science, VIII, p. 681) believes it probable that a body moving through continuous ether will leave discontinuous or triturated ether behind it and have sheared continuous ether in front. If the triturated region be supposed to exist without any material body, it will be a seat of energy, and can not be at rest, but must continually break down the neighboring continuous ether. The resistance to this action varies as the velocity and as the front presented, which may represent mass. We thus have an approach to Newton's laws of motion as a manifestation of the ether.

Friction.—Brillouin (Comptes Rendus, CXXVIII, p. 354) states that in the neighbor-

hood of the surface of a body consisting of isolated molecules the forces exerted by which on an external molecule are functions of the distances the force function is periodic; hence there will be a large number of stable positions for the external molecule, separated by unstable ones. If the body, therefore, move past the molecule, the molecule's kinetic energy will be increased by the same amount every time the body advances through a molecular distance. The development of heat by friction thus follows from molecular theory.

Elasticity.—Weston (Physical Review, 5) has determined the modulus of elasticity for copper, brass, and steel under small loads by means of interference methods, and concludes that for the first two, and probably for the last, the ratio between deflection and load is constant for loads from 0.5 gramme to those that give the bar a permanent set.

Density.—Berthelot (Comptes Rendus, CXXVIII, p. 553) employs the density of liquids to calculate their molecular weight, using an equation connecting density with corresponding pressure and absolute temperature, and with critical pressure, temperature, and volume. He can obtain molecular weights within a few per cent.

Torsion.—Bouasse (Journal de Physique, August) finds that the torsion produced by a given couple depends on the mode of variation of the torsion with respect to the time. If wires of the same material but different diameters be loaded with weights proportional to their cross sections, and be given any torsions in the inverse ratio of their radii (so that the radius of the wire multiplied by the angle of torsion is the same for all), then this variation is the same at each instant for all. Unless the time is taken into account, experiments on torsion are of little utility. Moreau (Comptes Rendus, CXXVIII, p. 292) finds that the laws of torsion for steel are analogous to those for soft iron, with the difference that permanent torsion sets in later with steel.

Ductility.—Bouasse (Comptes Rendus, CXXVIII, p. 291) finds that the limiting pull at which permanent stretching occurs in the case of copper wire decreases with prolonged heating.

Liquids. Surface Tension.—Pockels (Wiedemann's Annalen, LXVII, 3, p. 668) determines the tension of a surface of separation between two liquids by means of the cohesion balance, either by dipping an adhesion ring into the lower liquid and lifting it or by allowing one liquid to expand on a contaminated water surface, reducing the surface tension of the water till expansion ceases. The remaining surface tension of the water is measured with the cohesion balance, and the tension between the two liquids is obtained by deducting that of the upper liquid from the surface tension of equilibrium. It is found that the intermediate surface tension rapidly falls with the lapse of time. Grunmach (German Physical Society) determines the surface tension of liquids and of molten metals by observing interference waves due to two vibrating centers connected to the prongs of a tuning fork. Some of his results are as follow:

METALS.	Temperature.	Specific gravity.	Surface tension in grammes per centimetre.
Wood's alloy.....	145° C.	9.52	0.345
Rose's alloy.....	145°	9.34	0.350
Lipowitz's alloy.....	160°	9.58	0.334
Tin-lead alloy.....	215°	8.05	0.394
Tin.....	240°	6.968	0.359
Lead.....	335°	10.645	0.482

Fischer (Wiedemann's Annalen, July), in a paper on the smallest thickness of liquid films, attempts to harmonize the results of various observers by supposing that when a drop of oil is placed on a surface of pure water a "precursory film" first spreads over the water, and is followed more slowly by another. In his own experiments he used a pure mercury surface.

Solution.—Dieterici (Wiedemann's Annalen, LXVII, 4, p. 859) concludes from experiments that within the degrees of concentration observed (normal to decinormal) there is in electrolytes no decrease of vapor pressure with decrease of concentration, and that Raoult's law, according to which the decrease of vapor pressure is independent of the nature of the solute, does not apply to aqueous solutions of electrolytes.

Crystallization.—Poynting and Gray (Proceedings of the Royal Society, LXIV, p. 121) have sought for a directive action of one crystal on another, rotating one quartz crystal near a second one, and watching for forced oscillations in the latter. The results were negative.

Solidification.—Wilson (Proceedings of the Cambridge Philosophical Society, X, p. 25) finds that the rate of solidification in a supercooled liquid depends on the difference between the internal pressure in the solid and that in the liquid, which difference in the case of water and ice at -1° C. amounts to 12 atmospheres. Phenomena resembling explosion occur when, at very low temperatures, solidification is retarded by viscosity and the supercooling is gradually diminished.

Gases. Efflux.—Embsen (Wiedemann's Annalen, LXIX, 1, p. 264) has observed the phenomena of periodic condensation in the efflux of gases from narrow openings, photographing them by Dvorak's method of striæ. Stationary sound waves are produced in all gases as soon as the pressure exceeds 1.9 atmosphere.

Viscosity.—Breitenbach (Wiedemann's Annalen, LXVII, 4, p. 803), using the method of transpiration, finds that the viscosity of gases is proportional to a power of the absolute temperature whose index in various gases lies between 0.6 and 1. The sphere of influence of a molecule therefore decreases as the temperature increases.

Condensation.—Mueller-Erzbach (Wiedemann's Annalen, LXVII, 4, p. 899) finds that the attraction of wax for vapor of carbon disulphide is still felt though the wax be painted with a layer of gum. The attraction lessens, however, with increasing thickness of the layer, and when this reaches 0.35 millimetre is no longer felt. The attraction was gauged by the ability of the gum-covered wax to condense the vapor, which was kept 1° to 2° colder than the wax.

Barometry.—Koch (Wiedemann's Annalen, LXVII, 2, p. 485) has devised a standard barometer in which a faulty vacuum can be restored by means of a permanently attached Sprengel pump.

Acoustics. Intensity.—The experiments of Rayleigh (Philosophical Magazine, XLVII, p. 308) negative Wilmer Duff's theory that radiation is the cause of deviation from the law of inverse squares in observations on sound intensity. He attributes this deviation to atmospheric refraction and reflection.

Propagation.—Vieille (Comptes Rendus, CXXVIII, p. 1437), from a study of intense waves of compression produced by the explosion of gunpowder in a closed iron tube, concludes that the pressure rises more and more rapidly in the wave front as it moves away from the point of explosion. The velocity of the disturbance is also

abnormal, about 600 metres per second, or nearly twice that of sound. On reflection at the ends the waves are re-enforced in intensity, owing probably to the fact that the gas in the tube moves in the direction of propagation on the passage of the waves, which movement is arrested by the ends of the tube.

Pitch.—Stumpf (Wiedemann's *Annalen*, January) defends the method of determining high pitches by means of difference tones, which he regards as convenient and reliable. When the primary notes are in the same octave there are only two difference tones below them, one representing the difference between the two notes sounding together, and the other the difference between the higher note and the octave of the lower one. As the higher note ascends the pitch of the first difference tone rises, while that of the second one falls. Von Lang (Wiedemann's *Annalen*, June) finds that stretched India-rubber threads when vibrated give a constant note between certain lengths, because the ratio of length to tension remains constant during the stretching.

Beats.—Maltézos (Paris Academy of Sciences, Aug. 28) notes that the ordinary equation for a thin elastic string, giving the relation between the number of vibrations, tension, section, and length, does not explain beats. Taking into account the rigidity of the string, he deduces theoretically an expression for the number of vibrations, which leads to the conclusion that the number of beats is proportional to the square root of the area of the section, inversely proportional to the cube of the length, and inversely proportional to the square root of the tension. The last conclusion agrees with experiment, but the second does not, experiment showing that the number of beats is nearly inversely as the simple length of the string. Hence some additional factor beyond rigidity must enter into the problem, probably a difference of elasticity in two directions across the sectional area.

Radiophony.—Dussaud (*Comptes Rendus*, CXXVIII, p. 171) has transmitted sound to a distance of 10 miles by using a selenium cell influenced by ultraviolet light through the intermediary of a fluorescent screen. Sella (*Nuovo Cimento*, VIII, p. 4) also uses ultraviolet light, but substitutes an influence machine for the selenium cell. The light, falling on a short air gap, modifies the sound of a telephone in circuit.

Heat. Expansion.—Le Chatelier (Paris Academy of Sciences, Aug. 7) finds that, while different specimens of iron and steel expand similarly up to about 750°, above the temperature of molecular transformation they expand very differently, according to the amount of carbon present. For an increase of carbon from 0.05 to 1.2 per cent., the coefficient doubles.

Temperature.—Berkenbusch (Wiedemann's *Annalen*, LXVII, 3, p. 649), using two new methods for measuring flame temperature indicated by Nernst—one founded on an estimation of the rate of heating and cooling of a thermo-couple, and the other on the electrical heating of a thermoelement to the temperature of the flame—finds that points in a Bunsen flame give a mean of 1,830°. This accords with Waggener's results and with thermo-chemical calculation, which gives 1,820°.

Radiation.—Ångström (Wiedemann's *Annalen*, LXVII, 3, p. 633) has devised what he calls an electric compensation pyrheliometer for measuring thermal radiation. Of two similar thin metal strips, one is exposed to the radiation, while the other is heated correspondingly by an electric current supplying a known quantity of energy.

Crova (*Annales de Chimie et Physique*, No. 17) calculates the intensity of solar radiation from the readings of a thermometer whose spherical black bulb is concentric with a metal sphere with a small window in it. The instrument is kept in partial shadow by diaphragms. Thus inclosed and protected, when the interspace between bulb and sphere is maintained at constant temperature the bulb shows by its rise of temperature in a given time the amount of radiant energy incident upon the exposed area.

Conduction.—Lees (Memoirs of the Manchester Literary and Philosophical Society, XLIII, 8, p. 1) finds that the thermal conductivity of glass, ebonite, and soft sandstone increases with pressure, while that of granite and marble did not change within the limits of the experiment (1 to 54½ atmospheres). The same experimenter (*Philosophical Transactions*, CXCI, p. 399) finds that poor solid conductors (except glass) generally decrease in conductivity with increase of temperature in the neighborhood of 40° C.; that liquids follow the same law near 30° C.; that conductivity does not always change abruptly at the melting point; that the conductivity of a mixture lies between the conductivities of its constituents; and that mixtures of liquids decrease in conductivity with increase of temperature at about the same rate as their constituents. Hempel (Wiedemann's *Annalen*, January) finds that the improved Dewar vacuum insulator (see article on LIQUID AIR, *Annual Cyclopædia*, 1898) will maintain the temperature of test tubes filled with ether and solid carbonic acid as low as -70° for eighty-eight minutes. Tubes packed in wool, cotton, or silk rose to -45° to -55° in the same time. Eiderdown kept the temperature down to -66°.

Ebullition.—Richards and Harrington (*Zeitschrift für physikalische Chemie*, XXVII, p. 421) have inquired whether the fact that a solution of mixed salts boils at a lower temperature than that calculated from adding the depressions corresponding to the constituents may not be due partly to the fact that the dissociation of one salt is affected by the presence of another. They find that molecular combinations appear to accompany the reaction.

Solidification.—Battelli and Stefanini (*Nuovo Cimento*, IX, p. 5) conclude that the molecular depression of the freezing point remains practically constant as dilution increases, and that for very dilute solutions it does not differ much from 1.87. This agrees with the results of Raoult, but not with those of the majority of other investigators. Tammann (*Zeitschrift für physikalische Chemie*, XXVIII, p. 17), in a determination of the viscosities of various supercooled organic substances, finds that in the neighborhood of the freezing point the viscosity increases normally, but at an average of 90° below it the increase begins to be abnormally rapid. The same investigator (Wiedemann's *Annalen*, LXVII, 4, p. 871), after an inquiry regarding a critical state between the solid and liquid states, concludes that no such state has ever been observed. An apparently continuous transition from the crystalline to the liquid state has been reported, but only when the conditions are unfavorable for seeing the dividing surface.

Specific Heat.—Sohncke (Wiedemann's *Annalen*, LXVI, 1, p. 111) concludes from the close agreement of the temperature coefficient of the specific heats of solids, liquids, and gases that for all bodies (when not near a change of state) the change of specific heat with temperature is determined chiefly by increase of internal molecular

energy. It follows that monatomic molecules should not show increase of specific heat. Mercury and cadmium have been found to show a decrease, for which the author accounts by the diminution of mutual molecular action due to increased distance apart caused by the rise of temperature.

Long Heat Waves.—Rubens and Aschkinass (Wiedemann's Annalen, LXVII, 2, p. 459) have succeeded, by using quartz prisms of small refracting-angle, in obtaining waves of $56\ \mu$, for which quartz has a refractive index of 2.18. Attempts to obtain longer waves failed, because the radiation of an absolutely black body beyond $60\ \mu$ is less than $\frac{1}{100000}$ of the total energy.

Light. Its Nature.—Rovida (Rivista Scientifica, XXX, p. 225) rejects Garbasso's conclusion that monochromatic light is due to a simple vibration, and regards it as doubly damped. The spectral "line" for each color must still have some breadth, else it would not be visible, but this indicates continuous damping in function of time or of displacement. The former, when considerable, gives rise to widening of spectral lines; the latter, to anomalous dispersion. The "continuity" of the spectrum resembles the imaginary continuity of water in hydrodynamics.

Absorption.—Fessenden (American Association) notes that the flash of smokeless powder may be distinguished at a distance by the use of an absorptive color screen. The flash, he says, proves to be essentially red, whereas the diffused light coming from the landscape at large is very weak in the red; consequently when a red screen is used the illumination of the general landscape is greatly reduced, and the gun flash appears with undiminished brightness. The contrast becomes sufficient to enable the observer to readily locate the flash.

Refraction.—Hallwachs (Isis Society, Dresden) has investigated the relation between the refractive index of various substances and their degree of concentration, in order to discover whether this is influenced at all by dissociation. Experiments with a double-trough refractometer, using the author's differential method with grazing incidence, show that the influence, if any, is too small for measurement. Le Blanc and Rohland had previously reported the existence of such an influence in the case of brome-cadmium. Besides this substance, Hallwachs used sugar and di- and trichloroacetic acids, with their potassium salts. Bender (Wiedemann's Annalen, LXVIII, 2, p. 343) has determined the refractive index of pure water for the hydrogen lines by means of Pulfrich's refractometer, in which a cube takes the place of the prism. Between 10° and 40° this index is the same as that for water containing air. Hallwachs (ibid., January) measures small differences of refractive index without an interference refractometer by using glancing incidence on a partition separating the two liquids to be compared. By this method the refractive index with respect to water may be found to within one millionth of its value.

Total Reflection.—Ketteler (Wiedemann's Annalen, LXVII, 4, p. 879) states that the so-called "glancing ray" which, according to Voigt, penetrates the second medium in total reflection, must be explained on different principles from those given. The energy of such a ray must be zero, and, though there is wave motion at the boundary of the two media, no train of waves is propagated into the second medium. (See also Polarization, below.)

Diffraction.—Rayleigh (Philosophical Magazine, XLVII, p. 375), in a mathematical investiga-

tion into the weakening of light by passage through a medium containing small particles, takes up the connected question whether the light from the sky can be explained by diffraction from the molecules of air themselves or whether it must be produced by suspended particles, solid or liquid. He concludes that even if there are no foreign particles the light scattered from the molecules of air would produce a blue sky, though somewhat darker than the actual sky.

Dispersion.—Becquerel (Comptes Rendus CXXVIII, p. 145), in a study of the anomalous dispersion of sodium vapor, finds that for waves with frequencies slightly higher than either of the lines D or D₂, the indices of refraction are negative—that is, these waves travel faster in sodium vapor than in a vacuum.

Polarization.—Geigel (Wiedemann's Annalen, LXIV, 4, p. 698) has observed polarization of the emergent beam in total reflection (ordinarily unnoticeable) by using a hexagonal prism in which a beam is totally reflected a large number of times. Polarization in the plane of incidence appears after the forty-fourth reflection. The author believes that the component normal to the plane of incidence emerges into the rarer medium and is lost. Light of all visible wave lengths behaves in the same manner. Beckenkamp (ibid., LXVII, 2, p. 474) finds that the rotation of the plane of polarization in certain crystals is independent of the orientation of the crystals but proportional to the length of the ray. He applies to the case a mechanical explanation devised to account for certain pyro-electric phenomena, according to which three ether currents circulate in normal planes around the molecule, and at all places where the current path changes the ether pressure is above or below the normal. Borel (Comptes Rendus, CXXVIII, p. 1095) has studied the magnetic rotatory polarization of quartz discovered by Becquerel. The natural rotational power of the mineral makes this difficult, but it was accomplished by using a combination of right-handed and left-handed quartzes. The rotation increases with the temperature at a rate that increases with the refrangibility.

Spectroscopy.—Hamy (Comptes Rendus, CXXVIII, p. 1380) describes a method for measuring the wave lengths of standard spectral lines by interference fringes. He has designed what he calls a "simplifier" with which he can suppress one or more members of a doublet or a triplet without appreciably reducing the intensity of the remaining light. Gramont (Comptes Rendus, CXXVIII, p. 1564) has devised a method to reduce a spectrum observed in an ordinary spectroscopic to any desired micrometric scale. In his spectroscope the micrometer is mounted in an extra collimator, and its image is reflected into the telescope by a face of the prism. Lenses in the extra tube permit the observer to enlarge or reduce the micrometer scale. The prism can be turned out of the position of minimum deviation, so that its dispersion in any given region can be altered. Thus an unknown spectrum can be mapped in terms of a known one. Liveing (Proceedings of the Cambridge Philosophical Society, X, p. 38) has observed by using the very hot flame of cyanogen in oxygen two spectral lines of mercury hitherto obtained only in the electric arc. The emission of these in conditions where high temperature is the only stimulus shows, according to the author, that part of the heat communicated to the mercury is transformed into vibrations that affects the ether. The true inference from the peculiar ratio of the specific heats of mercury vapor appears to be that, at

the temperature at which this ratio is measured, the amount of heat converted into vibratory motion is small compared with that which remains as heat. The hypothesis that in gases energy communicated to the molecules is distributed equally through all the degrees of freedom must apparently be given up, and so must that of gaseous atoms in the shape of rigid spheres, for such an atom could acquire no internal motion from heat communicated to it. Hemsalech (Comptes Rendus, CXXIX, p. 285) finds that a self-induction in the discharge circuit affects the spectrum of an oscillating spark discharge by lowering the temperature, and thus eliminating the lines due to the surrounding gas from the spectrum of the spark. In hydrogen under atmospheric pressure the lines due to the oscillating discharge have a sharpness which is not interfered with by the sparking distance.

Magneto-optics; Zeeman Effect.—Poincaré (Éclair Electrique, XIX, p. 5) has elaborated mathematically Lorentz's theory for explaining the resolution of spectral lines into complex forms in a magnetic field. The supposition that the ions are simple electrified particles accounts for triplex forms, but not for the others. Lorentz's theory supposes complex dynamical systems, which explains some of the more complex results of experiment. Kelvin (London Royal Society, July 17) concludes from mathematical analysis that a gyrostatic molecule could not in a strong magnetic field give the Zeeman effect. Only a broadening, not a splitting, of the spectrum lines could occur. This agrees with Larmor's statement. Voigt (Göttingen Nachrichten, IV, p. 329) concludes that the inverse Zeeman phenomenon (alteration of selective absorption of a body in the magnetic field) is nothing else than the Faraday phenomenon of magnetic rotatory polarization in substances possessing selective absorption. The author has developed a mathematical theory in which these two effects appear as special cases. Corbino (Academy of the Lincei, VIII, p. 250) finds that the phenomena of anomalous magnetic rotatory polarization with all their peculiarities can be deduced from the Zeeman phenomenon by the admission of certain postulates. The symmetry of the phenomenon also follows with the aid of Helmholtz's anomalous-dispersion postulates, and also the phenomenon of double refraction by absorbent vapors, normal to the lines of force. Voigt (Wiedemann's Annalen, LXVIII, 2, p. 352) shows that observed deviations from the normal type of the Zeeman effect are due to anomalous behavior of the component of the electric force that is parallel to the lines of force of the magnetic field. On this basis the author works out modifications of the Hertzian equations which account for the quadruplets of Cornu and Becquerel and allied forms. Preston, in a lecture before the Royal Institution (May 12), finds evidence in the phenomenon for a surmise that not only is the atom composed of different ions, but the atoms of those substances in the same chemical group are built up from the same kind of ions. It may be, he thinks, that all ions are fundamentally the same. Goldhammer (Wiedemann's Annalen, LXVII, 3, p. 696) shows that it is possible to explain the effect on the basis of the older magneto-optical theories, without calling in the conception of ionic motion. Preston (Philosophical Magazine, XLVII, p. 165) explains radiation phenomena in strong magnetic fields by Larmor's electro-magnetic theory. An ion describing an elliptic orbit is forced by the magnetic field into a precessional movement around the direction of the magnetic force.

As a deduction from this, a single spectral line should be tripled, and its constituents should be plane polarized when viewed across the force lines. The separation of the side lines of a triplet should vary as the wave length. The author believes that the results of observation so far confirm this. Cotton (Comptes Rendus, CXXVIII, p. 294) has studied the polarization of rays from sodium flames placed between the pole pieces of an electro-magnet, and finds that the vibrations in the neighborhood of the rays become elliptical—right-handed on one side and left-handed on the other. For all radiations more refrangible than one of the D lines the component perpendicular to the field was in advance of the other. For the less refrangible radiations the inverse is true. This double refraction is connected with the Zeeman effect, and is in accordance with Becquerel's explanation.

Kerr Effect.—Abraham and Lemoine (Comptes Rendus, CXXIX, p. 206) find that when the magnetic field productive of the Kerr phenomenon is abolished the bi-refringence does not cease at once, though the decay is rapid. The electro-optic phenomenon is reduced by one half in $\frac{1}{1000000}$ part of a second. Blondlot (Paris Academy of Sciences, July 24) shows that the time elapsing between the suppression of an electric field and the disappearance of the Kerr effect can not exceed $\frac{1}{1000000}$ of a second.

Phosphorescence.—Mears. Lumière (Comptes Rendus, CXXVIII, p. 549) find that the phosphorescence of calcium and zinc sulphides after exposure to the electric arc is enfeebled at -20° or -30° and disappears at about -50° . When the original source was the magnesium light the disappearance took place at between -70° and -80° . When the exposure to magnesium light was at the temperature of liquid air (-191°) the phosphorescence appeared at -180° .

Photo-action at Low Temperatures.—A. and L. Lumière (Comptes Rendus, CXXVIII, p. 359) find that ultrasensitive gelatino-bromide plates cooled to the temperature of liquid air (-191° C.) require 350 to 400 times as long exposure as at ordinary temperatures. Less sensitive plates are not acted upon at all. The plates are not altered in any way, nor is any latent image in the film affected.

Fluorescence.—Burke (Philosophical Transactions, CXCI, p. 87) finds that fluorescing bodies absorb differently, according as they are fluorescing or not, the rays that they give out while fluorescing.

"Dark Light."—Le Bon (Comptes Rendus, CXXVIII, p. 297) asserts that bodies inclosed in opaque boxes can be photographed by exposure for a few seconds to a plate of phosphorescent zinc sulphide, which is then put into contact with a sensitive plate.

Monochromatism.—Fabry and Perot (Comptes Rendus, CXXVIII, p. 1156) recommend as a source of monochromatic light the arc produced between mercury electrodes in a Torricellian vacuum. The principal radiations are: Violet, which may be cut out by yellow glass or a thin layer of bichromate-of-potash solution; green, cut out with the preceding by a weak solution of eosine; and two yellows, cut out by a concentrated solution of chloride of didymium. A mixture of this solution with bichromate of potash cuts out all except the green rays. The violet ray is useful for photography. For this the yellow and green need not be eliminated, but an acid solution of sulphate of quinine must be interposed in order to get rid of some ultraviolet radiations.

Photometry.—C. Henry (Comptes Rendus, CXXVIII, p. 941) has devised a photographic actinometer consisting of a series of semitranslucent and semiphosphorescent screens. The screen is first exposed to the source of light and then placed at the end of a tube, where its luminosity is compared with that of ground glass illuminated by a standard candle. The rate at which phosphorescent zinc sulphide loses its luminosity being known, it is easy to determine its original luminosity. Cattell (American Association) has utilized in photometry his observation that the time required to decide which of two surfaces is the darker is a direct measure of the difference in luminosity of the two surfaces.

Becquerel Rays.—Rutherford (Philosophical Magazine, XLVII, p. 109) finds no evidence of polarization or refraction in these rays, thus differing from the earlier conclusions of Becquerel, their discoverer. He explains the electrical conductivity produced by the radiation by supposing that the rays in traversing a gas produce in it oppositely charged particles, and that the number of these in a second depends on the intensity of the radiation and on the pressure. The radiation is complex, one constituent (α) being readily absorbed, while another (β) is more penetrative. The former produces the greater amount of leakage of electricity between two metal plates, while the latter is photographically more effective. The cause of the radiation remains unknown, but the energy spent seems to be extremely small. J. J. Thomson suggests that the rays are due to electrical effects arising from regrouping of atomic constituents. Becquerel (Comptes Rendus, CXXVIII, p. 771) in later experiments fails to confirm his original results, according to which the rays were regularly polarized, reflected, and refracted. Preparations made in May, 1896, have lost very little of their radio-active power. They seem, like a magnet, to contain a store of energy expended in producing their present condition, and the process of giving out this energy is very slow. It has not been possible to alter its intensity by physical means. Elster and Geitel (Wiedemann's Annalen, LXIX, 1, p. 83) find that Becquerel rays are uninfluenced by the impact of cathode rays or by temperature. The authors believe the rays to be Röntgen rays of small intensity, but they are not magnetically deflected. Behrendsen (ibid., p. 220) adduces still more evidence in favor of the identity of the rays with Röntgen rays. The polarization of Becquerel rays, which their discoverer had relied upon as a distinction from Röntgen rays, has been disproved by this investigator. Crookes (Comptes Rendus, CXXVIII, p. 176) says that the radiation from uranium and similar metals may be explained by supposing that they are able to separate the rapidly moving from the slowly moving air molecules, and to appropriate some of the energy of the former.

Focometer.—Devé (Comptes Rendus, CXXVIII, p. 1561) has devised an instrument to measure the curvatures, focal lengths, and aberrations of optical surfaces. The optical system producing the image observed is so arranged that it can oscillate about an axis near the image, and its position is altered till the image, as observed through an eyepiece, does not oscillate with it. It must then be on the axis, whose distance from the optical surface is next measured. The precision is much greater than that of the ordinary methods.

Sky Colors.—Bock (Wiedemann's Annalen, LXVIII, 4, p. 674) has investigated the "blue steam jet" described by Helmholtz, and finds its

color strictly identical with that of the blue sky. Under illumination similar to that of the atmosphere the jet shows a whitish color, which, when observed at right angles to the ray, can be made to disappear by turning the analyzer. The red, yellow, and green components are polarized, and the blue and the violet rays are unpolarized, the result being a phenomenon analogous to Tyndall's "residue blue." The transmitted ray shows reddish-yellow coloration. The jet is invisible in red light, and is distinct in blue. Probably the diameter of the droplets is equal to the wave length of the blue rays.

Electricity. Discharge Phenomena.—Haschek and Mache (Wiedemann's Annalen, LXVIII, 4, p. 740) estimate the increase of pressure within an electric spark to be about 11 atmospheres, increasing with the energy, with the pressure of the gas, and with the sparking distance. There is a similar increase when an arc is established, and in both cases it appears due not to heat but to particles projected from the electrodes. Riecke (ibid., p. 729) has measured the work consumed in a spark gap, which he finds to be as follows:

Gap 2 cm.....	1.64 watts	Heat 4.96 grm.-cal. per sec.
" 4 cm.....	3.08 "	" 6.05 " " "
" 6 cm.....	5.27 "	" 9.56 " " "
" 8 cm.....	1.79 "	" 5.39 " " "

The diminution of the work from 6 to 8 centimetres is due to the diminished quantity of the discharge. The potential continues to rise. Nikolaieff (Journal de Physique, VIII, p. 432) finds that when a layer of cotton wool, pressed between two ebonite rings, is placed in the path of a disruptive discharge the wool is traversed by a canal about 6 millimetres in diameter, whose sides are formed by compressed wool. If the wool is soaked in water or vaseline the passage is larger. Walter (Wiedemann's Annalen, LXVIII, 4, p. 776) adduces additional evidence to support his view that every spark discharge is preceded by tentative brush discharges from both electrodes. Oberbeck (ibid., LXVII, 3, p. 592), in an investigation of the difference between spark and brush discharges, finds that on reducing the pressure the character of both changes. Assuming that the discharge that is attached to both electrodes is the spark discharge, he shows how and where the two varieties merge. Almy (German Physical Society), in experiments on spark discharge in solid and liquid dielectrics, finds (1) that the discharge potential is reduced by about 5 per cent. when the spherical electrode is replaced by a pointed one; (2) that with dissimilar electrodes the discharge potential does not depend on reversal of polarity; and that (3) considerably lower values of the discharge potential are obtained if, instead of raising the potential gradually, oscillations are allowed to take place by connecting an air-spark gap in parallel with the apparatus and increasing the gap until the dielectric is pierced. Berthelot (Annales de Chimie et Physique, XVI, p. 5) has subjected many organic compounds to the action of the brush discharge (*effluve électrique*). The bodies were placed in a narrow space between armatures and subjected to a noiseless and invisible discharge from a rapidly interrupted induction coil of 12-millimetre spark length for twenty-four hours. In general there was observed first a decomposition, in which hydrogen and the simplest binary compounds were separated, and then a condensation or polymerization forming highly complex substances. There is thus an analogy with the action to which food is subjected in the animal body.

Phenomena in Rarefied Gases.—J. J. Thomson (Cambridge Philosophical Society, June 7) de-

duces mathematically the result that in a constant magnetic field ions moving at high speeds travel along the lines of magnetic force, while those of lower speeds move in spirals. In the discharge of electricity through gases the negative ion has always been found to move faster than the positive, and this accounts for many of the differences between the phenomena at the positive and negative electrodes. In like manner Prof. Thomson's results account for the difference in behavior of the negative glow and of the positive column in a magnetic field, the glow following the lines of magnetic force and the positive column taking a spiral path. Bouty (Paris Academy of Sciences, July 24) finds that when a tube of rarefied gas is placed in an electrostatic field there is a critical intensity of this field below which the gas acts as a perfect dielectric and above which it allows a discharge to pass. The relation between this intensity and the pressure is expressed by the formula

$$f = A \left(1 + Bp + \frac{C}{p} \right),$$

where f is the critical intensity, p the pressure, and A , B , and C constants, of which B , and perhaps C , are independent of the nature of the gas, and A increases with its molecular weight. Hüllers (Wiedemann's Annalen, LXVIII, 2, p. 196) finds, in experiments on the manner in which the pressure of the gas between two plates affects the current which passes when they are brought to different potentials and Röntgen rays are allowed to traverse the gas, that the moisture of the gas does not affect either the potential or the current intensity. Near the pressure of maximum resistance the current intensity varies as the square root of the pressure. Himstedt (ibid., LXVIII, 2, p. 294) finds that a disk connected with one pole of a Tesla transformer (the other terminating in a point beyond sparking distance) is charged positively, negatively, or not at all, according to the distance between point and disk. To explain this, it is assumed that the point gives out more positive electricity than negative, and that the negative electricity is capable of being propagated to a greater distance, no matter through what gas the discharge takes place, the only difference being that the transition takes place at different distances in different gases. Ebert (ibid., LXVII, 3, p. 608) has measured the energy consumed in vacuum tubes, and finds that it attains a minimum at a certain low pressure. His experiments show also that the dielectric strength of a gas increases with the valency of its molecules and the smallness of its sphere of influence, and support the view that the luminous phenomena of the tubes are due to dissociation caused by impact of cathode rays. Villari (Nuovo Cimento, IX, p. 77) finds that the cooling effect on a platinum spiral in a gas produced by the passage of electric sparks is increased with intensity of the spark. Lessening the pressure lessens the cooling effect. The cooling appears to be due to the impact of cool gas particles projected from the spark terminals. Fomm (Wiedemann's Annalen, July) describes a new phenomenon of the vacuum discharge seen when a vacuum tube is surrounded by wire rings at its ends. At a certain exhaustion blue rings concentric with these appear and inclose patches of positive light, which gradually disappear until the blue light fills the whole section. As the pressure continues to lessen, the blue light leaves the glass walls and expands lengthwise into a greenish-blue beam that proceeds in the direction of the other ring, and shows all the properties of cathode rays. Cantor

(ibid., LXVII, 2, p. 481) finds that under certain conditions vacuum discharges can be obtained that are apparently continuous. A coherer shows the presence of waves, but whether the wave system is quite discontinuous or not the author has not been able to determine. Moore (American Journal of Science, VI, p. 21) treats vacuum-tube phenomena from the point of view of kinetic theory, regarding their study as that of elementary action in electrical conduction. He traces an analogy between the flow of heat from a hot body and the motion of a discharge stream. Sutherland (Philosophical Magazine, XLVII, p. 269) maintains that J. J. Thomson's hypothesis that the cathode stream consists of atoms disintegrated into their component particles of primitive matter is not necessary. He believes that the electron, or natural electric unit usually associated with the atom to form an ion, resembles the atom somewhat and possesses inertia. The cathode stream contains separate negative electrons and some ions, the proportions varying according to circumstances. Impact on a thin aluminum window filters out the ions, and the transmitted electrons form Lenard rays. Röntgen rays are not electro-magnetic pulses, but are due to internal vibrations of the electrons, which would be caused wherever cathode or Lenard rays were absorbed, but which would always be damped by an associated atom, and hence would not accompany ordinary light. The author finds that his hypothesis explains the general phenomena of cathode, Lenard, and Röntgen rays. If it is true, it should be possible to get also a stream consisting of separate positive electrons. These may possibly be identical with Becquerel rays. In commenting on this paper, Prof. Thomson (ibid., p. 415) states that previously to his adoption of his own hypothesis he had considered and abandoned that of separate electrons. One of the difficulties that attend it is the large proportion of heat developed by impact of cathode rays. Wehnelt (Wiedemann's Annalen, July) distinguishes two classes of cathode-ray shadows, one produced by rays emerging from the cathode normal to its surface and crossing each other at a focus in case the cathode is curved, and the other consisting always of upright shadows thrown by rays parallel to the axis of the tube. Ewers (ibid., LXIX, 1, p. 167) concludes that Goldstein's "candle rays" consist not of projected anode particles, but of positive ions of cathode material. Berg (ibid., LXVIII, 4, p. 688), by perforating the anode instead of the cathode, obtains phenomena converse to the canal rays, thus showing that rays from one electrode are propagated across gaps in the other. Swinton (Proceedings of the Royal Society, LXIV, p. 377) finds that the rays that in a focus tube proceed from the front surface of the anticathode are reflected cathode rays. This reflection is largely diffuse, but is partly true specular reflection, the maximum of the reflected field being always that the point where the angles of incidence and reflection are equal. Guglielmo (Nuovo Cimento, IX, p. 131) finds that a filament of glass rendered fluorescent by cathode rays appears blurred when looked at through a thick stream of the rays at right angles to their course. This he believes to indicate perturbations in the ether along the course of cathode rays.

Röntgen Rays (see also paragraph just preceding).—Malagoli and Bonacini (Nuovo Cimento, IX, p. 279) conclude that substances may be divided into three groups: (1) Simple diffusers of incident Röntgen rays; (2) transformers of the rays; and (3) bodies acting partly in both these

ways. These results differ from those of Sagnac, who would place all bodies in the second group. He asserts that there is no diffusion of Röntgen rays; that the rays transformed by different bodies differ in penetrative power and absorbability by air; and that after transmission the rays are always accompanied by some transformed rays. The same investigators (Atti dei Lincei, VIII, p. 296) believe that there is no true deflection of Röntgen rays, the apparent deflection being due to diffusion or to secondary rays by transformation. Various observers have attempted, in the absence of regular reflection and polarization, to obtain the wave length of the rays by diffraction. Maier (Wiedemann's Annalen, LXVIII, 4, p. 903) obtains one thirtieth of the wave length of ordinary light, which agrees with Fomm's result. It is not certain, however, that the "fringes" used by these investigators are true diffraction phenomena. Haga and Wind (ibid., p. 884) regard them as an optical illusion. Zeleny (Proceedings of the Cambridge [England] Philosophical Society, X, p. 14) finds that the passage of electricity through a gas under the influence of Röntgen rays is accompanied by considerable motion in the gas itself, which for a given intensity of the rays is dependent on the potential gradient. The gas is dragged by the moving ions in both directions equally if there be no free charge, otherwise more in one direction. Experiments by Winkelmann on electric currents induced by the rays are in accordance (Wiedemann's Annalen, LXVI, 1, p. 1) with the theory that the air between the plates is ionized, and that almost as soon as the rays start a constant electro-motive force exists between them analogous to contact difference of potential.

Electrification.—Pellut (Comptes Rendus, CXXVIII, p. 169) has shown that electrified water lose part of its charge by evaporation. The author applies his results to explain the daily variation of atmospheric electricity after sunrise and sunset. Kelvin, Maclean, and Gaet (Philosophical Transactions, CXCI, p. 187) find that when air in a glass cylinder is electrified by needle points at 5,000 volts shorter times give larger values. Five minutes suffice to annul the electrification entirely. The authors suggest that continued electric disruptive action renders the gas conductive. Blondlot (Comptes Rendus, CXXVIII, p. 901) finds that an electro-motive force may be developed by mixing liquids in a magnetic field. The difference of potential disappears when the stirring stops, and also when the magnetic field is removed. If a person be supposed to lie on his right side in the vessel facing the north-seeking pole of the magnet, the positive electrode is at his head. The expression for the electro-motive force due to induction between the terminals is an integral, containing, among other things, the variable conductivity of the solution.

Peltier Effect.—Pochettino (Atti dei Lincei) has investigated variations of the Peltier effect in a magnetic field. Its coefficient is found to vary with the magnetization, increasing up to a field of 98 units, and then decreasing, passing its normal value at 345 units. This variation is independent of the direction of magnetization.

Resistance.—Coloman de Szily (Journal de Physique, June), from his experiments on the effect of torsion on the resistance of wires, using the alloy "constantan," whose resistance is but slightly affected by change of temperature, draws the following conclusions: Torsion increases the electric resistance of a wire; up to the limit of elasticity the increase is roughly proportional to the angle of torsion, but beyond it the resistance

increases more rapidly. The resistance of a twisted wire decreases slowly with the time.

Electrolysis.—Trouton (Electrician, Aug. 18) finds that during electrolysis liquid passes through a hole in a pierced partition between the electrodes. The flow is independent of the current, but is always toward the side of the hole where bubbles are formed with greatest difficulty. Behn-Eschenburg (Zeitschrift für Elektrochemie, V, p. 402) asserts that electrolytic conduction is subject to the same laws as metallic conduction, basing his conclusion on experiments with a continuous nonconducting trough placed around the iron core of a transformer and filled with a solution of an electrolyte. The trough constitutes an elementary coil, in which the varying magnetic field of the transformer induces currents.

Polarization.—Scott (Wiedemann's Annalen, p. 388), from researches on polarization of thin metal membranes, asserts that all such phenomena in the case of gold are due to pores in the metal. In platinum, however, they are caused by occluded gases. The polarization capacity of silver and lead is affected by the metallic ions in the electrolyte. Chassy (Comptes Rendus, CXXVII, p. 1203) finds that the initial capacity of polarization in an electrolytic cell is independent of the pressure. Cailletet had previously shown that the capacity after passage of the current is enormously increased by pressure. Anthony (Proceedings of the American Association, XLVII, p. 138) concludes that the high initial electro-motive force of a cell is due to dissolved oxygen, and that polarization is due to exhaustion of oxygen in the electrolyte.

Thermo-electricity.—Liebenow (Wiedemann's Annalen, LXVIII, 2, p. 316) shows that if we assume that heat and electricity are so connected that thermo-electric energy is produced whenever heat passes from a point at a higher to a point at a lower temperature, every electric current must be accompanied by a thermal current, and therefore an electro-motive force in a metal may force a stream of heat from a lower to a higher temperature; in other words, thermo-electric phenomena are reversible. The author's figures with regard to the ordinary thermo-electric current and the Thomson and Peltier effects agree with experimental data.

Dielectrics.—Edser (Proceedings of the Royal Society, LXIII, p. 374) believes that if a definite potential difference be maintained between any two parallel planes in a dielectric medium two kinds of molecular strain are produced—molecular rotation and a separation of constituent atoms. Double refraction is explained on the assumption that the molecules have their axes parallel, so that electrical disturbances perpendicular to these will produce rotation and those parallel will produce interatomic separation. Thomas Gray (American Association), in observations on the dielectric strength of oils, points out the peculiar fact that the strength per centimetre decreases as the thickness of the layer increases. His observations were made between spherical terminals. Pellat (Comptes Rendus, CXXVIII, p. 1312) explains residual charge by supposing that the polarization of a dielectric in an electric field does not take place instantaneously, and does not vanish instantly when the field is abolished. He believes that he has experimentally confirmed this hypothesis.

Hertzian Waves.—Le Bon (Revue Scientifique, XI, p. 513) notes that metals appear not to be as opaque to Hertzian waves as was at first thought. If the inclosure be perfect, however, the waves do not get through, for the apparent

transparency is due to chinks or to the waves getting round the metal. With no chinks a thickness of $\frac{1}{10}$ millimetre is as opaque as one of 2 millimetres. A chink is much more effective than a series of aperture, so that metallic gauze is nearly as opaque as a plate. The waves turn round obstacles with great facility, owing to their length. This accounts for the apparent partial transparency of metallic mirrors. Nonmetallic substances have been considered to be perfectly transparent, but the author believes that the waves do not come through a hill but around it. He finds that 12 centimetres of Portland cement are partially opaque; 30 centimetres wholly so. Dry sand is almost completely transparent; wet sand much less so. Freestone is much less opaque than cement, but it becomes more so when wet. In all these cases the transparency is greater for Hertzian waves than for light, but it varies from one body to another, decreases as the thickness increases, and increases when the bodies are wet. Sommerfeld (Wiedemann's *Annalen*, LXVII, 2, p. 233) finds from a mathematical investigation that in metallic conductors, especially heavy ones, the wave near the wire has always very nearly the velocity of light, and the damping is small. But if the wire is very thin or the oscillation slow both divergence from light velocity and damping may be considerable. In the first case the process is confined to a surface layer, and the electric force lines are nearly tangential inside the wire and nearly normal without. In the second the lines outside are not even approximately normal. Maclean (*American Journal of Science*, July), using an elementary type of coherer suitable for the determination of wave lengths from nodes produced by metallic reflection, finds that the velocity of Hertzian waves is 2.991×10^{10} centimetres per second, or practically the same as along wires.

Coherence.—Sundorph (Wiedemann's *Annalen*, LXVIII, 3, p. 594) and Tommasina (*Comptes Rendus*, CXXXIX, p. 40) report experiments which they regard as supporting the theory that "coherence" consists of the formation of actual conducting chains of particles. The latter finds that the chains are formed less easily in air than in liquid dielectrics. In distilled water he has made a chain 20 centimetres long, the action requiring a little less than one second. The former supports his conclusion by sparking across the gap between two metallic blocks on a glass plate, having between them a layer of nickel or iron filings. Augustus Trowbridge (*American Association*) finds that a certain minimum electromotive force of from 8 to 10 volts is necessary to break down the resistance of any particular coherer, and that electrical impulses after the first have practically no beneficial effect. It thus appears unnecessary that the disturbance should be oscillatory, as the first wave would produce all the effect. This observation explains much of the erratic behavior of coherers in experimental use. Branly (*Comptes Rendus*, CXXVIII, p. 1089) finds that a row of balls 1 centimetre in diameter forms a sensitive coherer, steel balls being equal to gold filings in this respect. To obtain uniform effects the shock used for de-cohering must be carefully graduated. Tommasina (*ibid.*, p. 1092) has made an electrolytic coherer by inclosing a drop of mercury between cylindrical brass electrodes in a glass tube. Conductors coated with electrolytic copper and immersed in water act similarly, a chain of particles, probably cupric oxide, joining the two conductors. This chain is often invisible. This same investigator (*ibid.*, p. 1225) has discovered that the

presence of a magnet immediately destroys the conductivity of the coherer after impact of the electro-magnetic wave. Bose (*Proceedings of the Royal Society*, LXV, p. 166) finds that all metals show contact sensitiveness toward electric radiation, the resistance generally diminishing. Potassium, however, and also the allied metals show an increase. Fine silver threads coated electrolytically with cobalt make very sensitive coherers. Neuschwender (Wiedemann's *Annalen*, LXVIII, 1, p. 92) publishes an explanation of the action of a gap between metallic deposits on glass bridged by a film of moisture. This device, which has been called an "anticoherer," shows an increase of resistance under the influence of electric waves, but the author observes that this occurs only when the moisture contains a salt that is capable on electrolysis of depositing pure metal. The crystalline deposits so formed are broken up by the sparks that pass when electric waves impinge, thus diminishing the conductivity. On the cessation of the wave the crystals partially cohere again, so that there is a so-called "self-righting" action.

Contact Breaker.—Wehnelt (*Elektrotechnisches Zeitschrift*, XX, p. 76) finds that a cell consisting of lead plate and a platinum wire inserted into a beaker of dilute sulphuric acid (the wire being inclosed in a glass tube of mercury) acts as an interrupter, with a frequency of about 1,000 per second, giving sparks 40 centimetres long with 6 ampères and 12 volts. A condenser is superfluous. D'Arsonval (*Comptes Rendus*, CXXVIII, p. 529) extends these results. With 70 volts he obtained sparks forming a continuous stream of fire 25 centimetres long and as thick as a lead pencil, the frequency being 1,700 per second. The new interrupter gave results ten times as strong as the Foucault interrupter, and acted also as a current separator. It gives regular and powerful Hertzian waves, and can therefore be used in wireless telegraphy. This Wehnelt interrupter has been discussed by a large number of writers. Kallir and Eichberg (*Zeitschrift für Elektrotechnologie*, XVII, p. 184) find from stroboscopic methods that the time interval of interruption is of the order of 0.0005 second. By using the platinum point first as anode and then as cathode the time interval with a point anode is found to be about double that corresponding to a point cathode. Simon (Wiedemann's *Annalen*, LXVIII, 2, p. 273) publishes a complete theory of the interrupter, according to which it is not electrolytic at all but "Jouleian," there being no electrolysis, though possibly disassociation by heat. Spies and Wehnelt (*German Physical Society*, I, p. 53) find that if the applied volts are increased the current increases, the rate of interruption increases, and the current density increases; while if the anode surface is increased the corresponding quantities are respectively increased, diminished, and diminished; and if the self-induction of the circuit is increased they are all diminished. Humphreys (*Physical Review*, July) suggests that the action of the Wehnelt interrupter depends upon electrical discharges. The current first increases, on account of self-induction, until the electrode is sheathed by a layer of gas, chiefly oxygen, which abruptly breaks the circuit. Owing to the self-induction, there is now an electrical discharge across the layer, giving rise to the glow, and decomposing the liquid. The sudden freeing of these gases and the heat of the discharge together produce an explosive effect; when this is over the liquid falls back to its place, and the action is continued. Voller and Walter (Wiedemann's *Annalen*, LXVIII, 3, p. 526) find

that hydrogen lines are pronounced in the spectrum of the Wehnelt spark. These do not interfere, but rather serve as lines of reference when metallic spectra are obtained, as may be done in great intensity and purity by varying the metal of the anode. E. Thomson (Electrical World, New York, XXXIII, p. 334) states that the interrupter furnishes a means of performing experiments hitherto regarded as requiring alternating currents, such as the repulsion of rings and the rotation of disks. A coil of few turns wound on a core of iron wire is used.

Electric Arc.—Merritt and Stewart (Physical Review, VII, p. 129) find that vapors from the carbon arc can discharge electrified bodies by contact. They retain the power for ten seconds, but lose it when passed between a charged and an earthed conductor.

Inductoscript.—McClelland (Proceedings of the Cambridge [England] Philosophical Society, IX, p. 522) concludes that the formation of figures on photographic plates by electric discharges is due principally to the light of the discharge, and not to direct chemical action. The radical difference between positive and negative figures he ascribes to the fact that the form of discharge in air is in one case a brush and in the other a glow.

Frequency Indicator.—Zeuneck (Wiedemann's Annalen, July) describes a method of controlling the frequency of an alternating current, in which the cathode beam of a Braun tube is exposed to a rotary field produced by the current. The end of the beam describes a circle on a screen, which is interrupted by a tuning fork twice every revolution. When the frequency is constant the dots thus produced are on the same diameter.

National Electric Laboratory.—Wolff (American Association) describes the progress that has been made in providing this country with a national laboratory in which electrical apparatus can be tested and standardized. In the office of the United States Standard Weights and Measures facilities are now available for testing most of the ordinary electrical apparatus. Many obstacles have been surmounted, and the progress is encouraging.

Magnetism. Magnetization.—Roget (Proceedings of the Royal Society, LXIV, p. 150) has extended up to 700° his experiments on the effects of prolonged heating on the magnetic properties of iron. He finds that annealed material is more liable to change and that annealing removes all changes produced by prolonged heating. The heating need not be continuous, and exposure to air makes no difference. The final state was found to be one of lower hysteresis the higher the temperature.

Permeability.—Meyer (Wiedemann's Annalen, June) has attempted to connect the magnetic permeability of the elements with their atomic weight. In the periodic series the paramagnetic elements are grouped in the center and the diamagnetic ones at the ends. The difficulty of obtaining the permeabilities of the rare elements interferes somewhat with the author's attempt. (See also the following paragraph.)

Low - temperature Phenomena.—Osmond (Comptes Rendus, CXXVIII, p. 1395) finds that certain nickel and manganese steels show no magnetic properties till they have been exposed to very low temperatures, the phenomenon being analogous to the lowering of the freezing point by dissolved substances. Some specimens have their transformation points lowered to such an extent that they do not become magnetic even at the temperature of liquid air. Claude (Paris Academy of Sciences, Aug. 21) finds that the

hysteresis and permeability of iron are both practically constant from 25° to —185° C., the permeability at —185° being only 2.5 per cent. less than at 25°. These results agree with those of Thiesen (who carried his experiments only as far as —80°), but they are opposed to those of Dewar and Fleming.

Properties of Alloys.—The same alloys of iron and nickel have both magnetic and nonmagnetic forms. This is explained by Houllevigue (Journal de Physique, VIII, p. 89) on the hypothesis that in one form an iron nucleus is compressed by a nickel shell, while in the other the shells are ruptured and the pressure relieved. In iron pressure decreases the magnetic susceptibility, while in nickel the same effect is produced by traction.

Dielectro-magnetic Medium.—This name is given by Boccard and Pandolfi (Nuovo Cimento, IX, p. 254) to a mixture of chemically pure impalpable iron powder with paraffin, the powder being suspended in the paraffin before cooling. The inductivity of this mixture increases more and more rapidly with the percentage of iron.

Change of Form.—Nagaoka and Honda (Philosophical Magazine, XLVI, p. 261) find that hydrostatic pressure produces decrease of magnetization in iron, and that magnetization produces increase of volume. In nickel both phenomena are the inverse of this, although the effect is smaller. In moderate fields a lengthwise pull increases magnetization in iron up to a critical value, after which it decreases to a point where it is less than in unstretched iron. Magnetization likewise produces increase of length up to a certain point, after which the length diminishes. With nickel tension first produces decrease of magnetization, and then gradual increase, but not to a value greater than in the unstretched metal. Magnetization produces continuous diminution of length in this metal.

Effect on Thermal Conductivity.—Korda (Comptes Rendus, CXXVIII, p. 418) finds that the thermal conductivity of soft iron is decreased along the lines of magnetic force, although unaffected normal to those lines. Theory indicates that the effect is proportional to the square of the magnetic permeability.

Effect on Boiling Point.—Du Bois (Proceedings of the Berlin Physical Society, XVII, p. 148) shows theoretically that a liquid alters its boiling point in a magnetic field, the point rising for a paramagnetic and falling for a diamagnetic body. The change varies with the field and the susceptibility, and is inversely as the density and the heat of vaporization. For water the change in a field of 50,000 C. G. S. units would be 1000th degree.

PHYSIOLOGY. Theory.—Conflicting views prevail concerning the structure of cell protoplasm. Many authors regard it as being composed of two substances, one of which is a contractile net according to some, a relatively rigid framework according to others, or as free filaments: others as built up of a more solid material and of a more fluid material which inhabits minute spaces or vacuoles hollowed out in the former; others as a heterogeneous jelly holding granules; while others deny the truth to all these views, and hold that the living cell protoplasm is homogeneous in so far that it does not manifest the coarse structure which these theories ascribe to it. Its peculiar and transcendent qualities are, according to them, associated with molecular and not molar structure. W. B. Hardy has endeavored to show that if we put on one side the confusion which has arisen from

the inheritance of two nomenclatures of parts of the cell, this lack of consonance in views concerning the structure of cell protoplasm is traceable in the main to the fact that they are largely based on details visible both in fresh and fixed cells which are the result of the physical changes that the living substance undergoes in the act of dying or under the influence of fixatives. A study of the action of reagents upon colloidal matter shows, according to this author, that when an insoluble modification is formed there is a separation of solid particles which are largely molecular aggregates, and that these become linked together to form a comparatively coarse solid framework having the form of an open net which holds fluid in its meshes. In some cases, however, the reagent is partially miscible with the colloidal mixture, when the latter is modified in degree, but remains the same in kind. The structure of dead matter which was once living may also be referred to the clotting phenomena of death as well as to post-mortem change.

In presenting the physiological aspects of symbiosis at the British Association, Prof. Marshall Ward distinguished between parasitism, where an organism grows upon another for its own benefit, and symbiosis, where two or more organisms are mutually dependent upon one another. A characteristic instance of symbiosis is that of lichens, which are dual organisms of alga and fungus. Other instances are afforded by the algæ in the stems of *Gunnera* and the roots of *Cycas*, in the fronds or thallus of *Anthoceros* and other plants. The roots of many humus plants are curiously swollen and modified by the presence of fungi, which do not injure the plant but link its roots to the decomposing leaves around. Budding and grafting are operations involving a process of symbiosis. The nodules on the roots of leguminous plants are agents through which they obtain nitrogenous food. Other cases are those of fermentations, which are all mixed, the decomposition of cellulose, and the direct alcoholic fermentation of starch by the simultaneous action of two fungi. Symbiosis in animals is exemplified by green infusoria, the hydra, sponges, etc. The general effect of the symbiosis of two or more organisms is observed to be that each in some way promotes and stimulates the growth and vigor of the other. But when we come to inquire as to the processes which increase the functional activity of one organism by another living symbiotically with it, the matter presents many difficulties. In some cases of close symbiosis, researches have made it practically certain that the provision of definite food materials by the one symbiont for the other may be an important factor. In other cases the advantage derived is one of protection from some injurious agent. "But there is evidence which suggests that mere nutrition or protection is not the only, or even the principal, factor involved. It is well known that the products of fermentative actions are frequently poisons, and we all know of cases where such poisonous excreta of living cells act as stimuli to other cells if supplied to them in minimal doses and very gradually." Several observers have shown that in presence of a particular food substance the living cell is stimulated to produce and excrete a particular enzyme, while the substitution of another food may cause the excretion of a different organism. There is evidence in support of the hypothesis that one symbiont may stimulate another by excreting some body which acts as an exciting drug to the other. It is known that the accumulation of the products of metabolism by a cell tends to inhibit its activity, and

that if the metabolite can be destroyed or removed as it is formed the cell concerned can go on working; and similarly with the accumulation of the products of ferments and enzymes. Now, if we have two organisms, one accumulating the product and the other removing it, the process will go on continually with undiminished activity.

A discussion of the chief features in plant physiology in which notable progress has been made during the past decade constituted the subject of the chairman's address of Prof. Charles R. Barnes before the botanical section of the American Association at the Columbus, Ohio, meeting. The author showed that the great advances in plant chemistry and physics, the progress in the investigation of causes of plant form, the widening ideas of the property of irritability, the investigation of the social relations of plants, and the minute study of cell action despite their diversity point to one end and purpose. This is the solution of the fundamental problem of plant as well as of animal physiology, of the constitution of living matter. The secret lies hid, entrenched within the apparently impregnable fortress of molecular structure. The attacks upon it from the direction of physical chemistry and physiological morphology, of irritability, of ecology, and of cytology are the concentrating attacks of various divisions of an army upon a citadel some of whose outer defenses have already been captured. The innumerable observations are devised along parallel lines of approach, and each division of the army is creeping closer and closer to the inner defenses, which yet resist all attacks and hide the long-sought truth. One outer circle of defenses yet remains untaken, and until that falls it would seem there is little hope of capturing the inner citadel. More must be known of the constitution of dead substances chemically related to the living ones. When the students of chemistry can put the physiologists in possession of the facts regarding dead proteids the attacks will be renewed more directly with greater vigor and greater hope of success. It is not possible to prove to-day that life and death are only a difference in the chemical and physical behavior of certain compounds.

Respiration.—Experiments by J. Lorrain Smith on the pathological effects due to increase of oxygen tension in the air breathed are regarded by him as supplementary to the investigation on the normal process of respiration of oxygen which was previously made by Dr. Haldane and himself. In that investigation it was shown that the absorption of oxygen by the lungs is an active physiological process. The experiments now described by Dr. Smith show that at a tension a good deal higher than that of ordinary air oxygen has the effect on the lungs of an irritant, and produces inflammation. The experiments also show that the toxic effects described by Bert occur at a tension which is much higher than that required to produce the inflammatory effect on the lungs. Further, it is shown that when the lungs are damaged the tension required for the production of this toxic effect is in a marked degree higher than that required when the lungs are normal. The experiments have a direct bearing on the pathology of caisson disease, a subject which the author does not discuss fully at present; but he considers that the oxygen tension of the high-pressure atmosphere is probably to be regarded as taking part along with the rapid decomposition predicated by Bert in his investigation of the subject in the production of that disease. Apart from this, the experiments have

a bearing on the general pathology of inflammation. Attention is especially drawn to the fact that the inflammatory condition of the lungs is in a sense directly continuous with the normal process of respiration. The transition from the physiological to the pathological stage is imperceptible. Oxygen, which at the tension of the atmosphere stimulates the lung cells to active absorption, at a higher tension acts as an irritant or pathological stimulant, and produces inflammation.

It was pointed out by Dr. A. Foxwell, in the Bradshaw Lecture to the College of Physicians, London, that the first result of exercise is an increase in the rise and depth of the inspirations—that is, of respiratory exchange. The respiratory quotient $\frac{\text{CO}_2}{\text{O}_2}$ is not increased, but rather, if anything, diminished; in other words, the tissues are as rich (or richer) in oxygen as during rest. This necessitates a great increase in the absorption of oxygen at the time; for it has been shown that a man gives off ten times as much carbonic acid when on the treadmill as he does when asleep. The fact is noted that arm work, per unit of work done, requires a greater absorption of oxygen than climbing, and climbing than walking on the level. If the amount of oxygen absorbed during sleep per minute be 100 grammes, then in a minute's walking at three miles an hour on the level it would be 500 grammes, in climbing a yard high 5,000 grammes, and in doing the same number of kilogrammetres by turning a wheel (arm work) 7,000 grammes. As to the distribution of the serious strain imposed upon the organs by the enormous increase in the absorption of oxygen and the giving out of carbonic acid, Dr. Foxwell considers that the lungs and the right ventricle of the heart bear the brunt of the extra labor involved in short, strenuous exertions.

Cheyne-Stokes breathing as defined by Stokes consists in the occurrence of a series of inspirations increasing to a maximum and then declining in force and length, each inspiration being less deep than the preceding one until they are all but imperceptible, and then a state of apparent apnoea occurs. This is at last broken by the faintest possible inspiration, followed by one more decided, marking the commencement of a new ascending and then descending series of respirations. In some cases the sequence of events is not so perfectly regular. The ocular phenomena which occur in association with Cheyne-Stokes breathing are regarded by Arthur L. Whitehead as worthy of attention not only as clinical facts, but because they may possibly help to throw light upon the ætiology of the symptom. In the majority of recorded cases no eye symptoms have been observed, but in some others definite disturbances of the intra- and extra-ocular muscles have been remarked. From the consideration of a number of cases cited from the records of many observers, Mr. Whitehead finds it evident that the ocular symptoms in question are of considerable variety, and may be observed in what may conveniently be called a Cheyne-Stokes state or condition apart from any disturbance in the rhythm of respiration. Every variety of case may be seen, from simple Cheyne-Stokes respiration to the complete clinical picture of the phenomenon accompanied during the pause by unconsciousness, closed eyelids, contracted pupils, and lateral conjugate deviation of the eyeballs, while the pulse is frequent, small, and of moderately high tension. At the end of some seconds consciousness returns, the eyes open, the pupils slightly dilate, the pulse loses some of its ten-

sion, and a superficial respiration follows. Cases of an intermediate character are referred to, and some that show that the periodic changes produced by alternations in the centers may begin in and be limited to those which are not concerned in vital phenomena.

In experiments made with sodium peroxide for absorbing from the air of a closed chamber carbonic acid, water vapor, and other irrespirable gases produced by a living animal within the chamber, and at the same time keeping up the supply of oxygen, MM. Desgrez and Balthazard found that while guinea pigs died very soon when no corrective provision was made, when sodium peroxide was placed in the chamber and water was allowed to drop upon it the animals lived a considerable period with no perceptible diminution of vitality. The reaction in the experiment was $\text{Na}_2\text{O}_2 + \text{H}_2\text{O} = 2\text{N}^\circ\text{OH} + \text{O}$. M. D'Arsonval proposes as an effective method of achieving the same end of the preservation of life the provision in the upper part of a tubulated receiver, in which the animal is inclosed hermetically, of a receptacle filled with pieces of soda lime; through the tubulus a solution of hydrogen peroxide coming from a Mariotte's bottle, is conducted by a tube so as to drop into a strong solution of chromic acid. The apparatus works automatically, for as the animal breathes and the carbon dioxide and water are absorbed by the soda lime the pressure falls and the Mariotte's bottle comes into action. The hydrogen-peroxide solution then begins to drop into the chromic acid, and disengages oxygen until the pressure is restored. The flow from Mariotte's bottle then stops, and the cycle begins again.

Experiments described by Vaughan Harley seem to show that when one pleural space is filled up so that the lung on one side is compressed and only the opposite lung remains active, a marked increase in the rate of breathing follows the majority of cases. At the same time more air is breathed per minute by the active lung than was previously breathed by the two lungs together. This increase in the quantity of air breathed is accompanied by an increase in the quantity of oxygen absorbed and of carbonic acid eliminated by the animal, the two being increased *pari passu* so that the respiratory quotient as a rule is not altered. The explanation of this increase is a subject for further investigation.

A new respiration calorimeter, devised by Prof. W. O. Atwater and E. B. Rosa, is intended for use in inquiries bearing first on the question as to whether the principle of conservation of energy holds good in the living apparatus, and, second, assuming this law to be true, on the acquisition of more definite knowledge of the ways in which the body is enriched and of the values and uses of food.

Circulation.—Several varieties of the condition of insufficiency of heart muscle are described by Martius. The first is pure acute insufficiency resulting from overwork or excessive exercise. The results of acute strains on a healthy heart are soon recovered from under the influence of rest, but often repeated strains lead to weakness. The second variety, acute myocardial insufficiency, is the primary and essential cause of paroxysmal tachycardia. The enormously increased frequency of the pulse is secondary. With recovery a return of efficiency ensues, which is brought on by a rapid disappearance of the dilatation of the heart. Third, a dilatation of the heart in very weak and anæmic girls has been observed by Henschen as a result of overwork. The condition develops slowly and persists for a

long time. Cardiac weakness and dilatation occurring in children from a primary insufficiency of the heart muscle is regarded by Germain Sée and other French physicians as due to the rapid growth of body and of stature which takes place toward the close of childhood, a growth in which the heart muscle also participates. Other authors have observed that the essential cardiac condition is not one of true muscular increase of growth or hypertrophy, but one of cardiac dilatation. Scrofulous children are especially disposed to this, and the demands of school life are mentioned as a possible exciting cause. In adults alcohol is the most important predisposing cause of heart insufficiency.

From observations on the effect of baths, massage, and exercise on the blood pressure, W. Edgecombe and W. Bain find that cold immersion baths of plain water raise the arterial pressures, maximum and mean, and lower the venous pressure; after reaction the arterial pressure falls and the venous pressure rises. The results may be attributed to rise in peripheral resistance. Percussion added to cold increases the rise in arterial pressure. Hot immersion baths of plain water lower the arterial pressure, and both absolutely and relatively lower the venous pressure to an extent roughly proportionate to the increase in temperature. Turkish baths lower the arterial and venous pressure to a greater extent than the preceding, though the fall in venous pressure is proportionately not so great as that in arterial pressure. Saline baths at warm temperatures lower the arterial pressure to a greater extent than plain water baths at the same temperatures. The venous pressure, though absolutely lowered, is relatively raised. When the amount of saline matter in solution is considerable, and especially if the factor of aëration is added, a further lowering of arterial pressure takes place, while the venous pressure becomes absolutely raised. Dry massage lowers the arterial pressure and relatively or absolutely raises the venous pressure, provided it be not performed too vigorously. When this is done, a rise in all pressure occurs. Warm temperature plus massage, as in the Aix douche, lowers the arterial and raises absolutely the venous pressure to a greater extent than dry massage. The effect of the Aix douche is cumulative. In the Vichy douche, when the needle-spray form of application and the recumbent posture have influence, a rise in arterial pressure takes place. The effect of exercise on blood pressure depends on the severity of the work performed. In all forms an initial rise in arterial pressure occurs; if the exercise is mild and insufficient to excite increased frequency of pulse and respiration, a fall in arterial pressure occurs during continuance of exercise; if it is severe, with marked increase in frequency of pulse and respiration, the initial rise becomes increased and may be maintained throughout the exercise. After exercise, moderate or severe, a fall in arterial pressure takes place. The venous pressure is raised during all forms of exercise, and remains raised during the subsequent arterial fall. The return of the blood pressure to normal after exercise takes place more or less rapidly according to the gentleness or severity of the exercise and the temperature of the atmosphere.

An important study of the variations of temperature and pulse in attacks of idiopathic epilepsy, epileptic vertigo, and hystero-epilepsy has been published by Marchand. This author finds that epileptic attacks cause an elevation of temperature of 0.5° C. on an average, lasting generally about forty minutes after the fit. This

rise of temperature is distinctly noticeable ten minutes after the fit, and attains its maximum—which lasts only ten minutes—in twenty minutes after it. Attacks of epileptic vertigo cause a decidedly less but still noticeable elevation of temperature. Epileptiform attacks of general paralysis cause a marked elevation of temperature comparable to that occurring in true epilepsy. In all cases, whether of epilepsy or epileptic vertigo, there is in general no relation between the maximum height reached by the temperature and the age of the patient, and in the same patient different attacks may produce slightly different temperatures. The pulse rises about 31 beats in frequency per minute above the normal after a fit, but fifty minutes after the fit it has fallen to the normal. The highest pulse rate is attained sixteen minutes after the attack, and this rate persists for five minutes. Both temperature and pulse fall after maximum slowly and steadily to normal, or only with slight oscillations during subsidence. In epileptic vertigo the pulse rises in proportion to the intensity of the attack. The elevation of temperature in epileptic vertigo is 0.3° C.; it lasts forty minutes. The maximum is attained fifteen minutes after the attack, and continues thirteen minutes, after which a gradual subsidence takes place. Hystero-epilepsy increases the temperature 0.4° C., and the elevation lasts thirty-five minutes, while a direct ratio exists between the length of the attack and the elevation of temperature. The duration of the maximum temperature is eight minutes, and the fall to normal is gradual. The pulse in hystero-epilepsy rises 57 beats, and the acceleration lasts twenty-four minutes. The maximum pulse rate is attained at the onset of the attack (epileptoid period), and this rate lasts for four minutes. The subsidence thereafter is irregular, and marked by considerable oscillations of the pulse rate. No relation is apparent between the duration of an attack and the maximum rate attained by the pulse in hystero-epilepsy. On the whole, the cardiac disturbance, indicated by the modification and irregular fall of the pulse, is much more marked than are the temperature variations in hystero-epilepsy.

Experiments by J. W. W. Stephens and W. Myers, constituting an elaboration of some investigations previously described by Kanthack, show that cobra poison delays or prevents the clotting of normal rabbits' blood; that this inhibitory action of cobra poison upon the clotting is neutralized *in vitro* by Calmette's antivenomous serum; that the action of the antivenomous serum *in vitro* is specific; that the antivenomous serum itself, when added to blood, delays clotting; that for certain doses of cobra poison (0.1 milligramme) the measure of the neutralization *in vitro*, using clotting as the test reaction, is also the measure of the neutralization *in corpore* for guinea pigs; that the neutralization of the toxin by the antitoxin *in vitro* is certainly not vital or cellular, but must be chemical; and that the blood of a rabbit immunized with injections of cobra poison, so far as clotting is concerned, has also acquired a certain amount of immunity against cobra poison.

M. P. Cazeneuve and P. Breteau represented in the French Academy of Sciences that pure crystallized hæmatine prepared from the blood of the cow, horse, and sheep show distinct differences in composition, particularly in the amounts of iron and nitrogen.

Digestion.—An important source of discrepancies in fact and opinion in the results of study of the physiology of the intestinal movements lies in the circumstance that the muscular coat

of the intestines is subject to inhibitory and augmentor impulses dependent, first, on the condition of the neighboring parts of the organ; and, second, on impulses ascending to the central nervous system from the intestine, abdominal wall, and other parts of the body, and affecting the nerves reflexly. The motor mechanism of the intestinal wall is, moreover, extremely sensitive to changes in the blood flow through the vessels of the intestine, or to the presence of drugs or other chemical substances in the blood or within the intestine itself. The subject has been investigated by W. B. Bayliss and E. H. Starling, who find two kinds of movements distinguishable in the small intestine—the rhythmic pendulum movements, due to rhythmic contractions affecting longitudinal and circular coats simultaneously, myogenic in origin, and peristaltic contractions, true co-ordinated reflexes. The activity of the intestinal muscles will at any time depend on the relative influence of the two sets of impulses—inhibitory from above, and augmentor or excitatory from below—to which every point of the intestine is subject. Besides these local influences, every point of the intestine is under the control of the central nervous system through the intermediation of the splanchnic and the vagus nerves. The splanchnic nerves exercise a tonic inhibitory influence on the intestinal movements, excitation of them causing inhibition of the intestine affecting the longitudinal and circular coats, which is independent of the vasoconstrictor action of the splanchnics. No satisfactory evidence was obtained that these nerves possess a motor function. The vagus nerves contain two sets of fibers—inhibitory and augmentor. The inhibitory fibers have a short latent period, the augmentor fibers a long latent period. The action of the vagus on the intestines is therefore twofold—an initial inhibition followed by augmentation which outlasts the extinction of the nerve. The vagi have no tonic action on the small intestine. The relations of the vasoconstrictor and vasomotor and of the splanchnic nerves to the small intestine and the action of certain drugs upon them have also been investigated by J. L. Bunch.

From a study of the structure and functions of the glands of the stomach, pursued chiefly from a histological point of view, Dr. R. R. Bensley holds that the present state of our knowledge does not permit any comparison between the pyloric glands and the other glands of the stomach, and that they can not be compared with any of the gastric glands of the lower invertebrates. He believes that the pyloric gland cells are in most animals closely allied to certain cells in the neck of the fundus glands which have up to the present time been regarded as ordinary chief inconspicuous cells, and that those of the cat, dog, and rabbit are identical with them. The author's researches have enabled him to satisfy himself that in the fundus glands of many mammals there are cells which are morphologically and physiologically equivalent to the mucous neck cells of the batrachian gland, and that the same relationship exists between these and the pyloric gland cells as obtains in *Anura*. These cells in the neck of the gland have been in great measure overlooked on account of their small size, and are generally regarded as pepsin-secreting chief cells. In the cat and dog, Dr. Bensley holds that the fundus glands contain two kinds of chief cells—those of the body and those of the neck of the gland. The former secrete ferment and present numerous large zymogen granules accumulated near the lumen, while the outer

protoplasmic zone of each cell dyes deeply with nuclear dye like hæmatoxylin and presents a coarse fibrillar structure. The staining properties of this part of the cell are due to the presence of a kind of chromatin which may stand in a genetic relation to zymogen, and which has been named prozymogen. He regards the cells of the neck of the gland and the cells of the pyloric gland, for reasons which he assigns, as of the same nature. The chief cells of the neck of the fundus glands and the pyloric gland cells of the cat and dog are the physiological and morphological homologues of the mucous neck cells and pyloric gland cells of the frog, with which they correspond in situation, structure, functional cells, and staining. The cells of the lowest portion of the gland duct or pit are of a type intermediate between the surface epithelium and the mucin-secreting neck cells or pyloric gland cells, and form the fundamental type to which the origin of both must be traced.

Dr. Southgate and B. K. Rachford published in 1895 the results of some experiments on the influence of bile and combined hydrochloric acid upon the proteolytic action of pancreatic juice. Their conclusions having been questioned, Mr. Rachford made further experiments, by the evidence of which he is led to believe that the conditions prevailing throughout the entire small intestine in carnivorous animals are favorable to the proteolytic action of pancreatic juice. In those animals, when the proteid food partly saturated with hydrochloric acid is discharged from the pylorus, it at once comes in contact with the mixture of bile and pancreatic juice, and immediately the trypsin finds itself under conditions most favorable for its proteolytic action. These conditions prevail for a short time only, when the pancreatic juice, more or less weakened by dilution as it passes down the intestinal canal, is called upon to act in the presence of sodium carbonate in the lower and alkaline portion of the ileum; and here again we find the conditions very favorable for the proteolytic enzyme of the pancreas. If the above conditions as assumed be correct, then throughout the entire small intestine trypsin finds itself in conditions more favorable to proteolytic action than if it were acting throughout the canal on neutral fibrin in neutral solution.

The question of what detrimental effects, if any, does the excessive formation and absorption of indol—a substance produced in some amount in the intestines of most adult human beings as the result of bacterial action on proteids—entail upon the human organism is the subject of a paper by Dr. C. A. Herter. The indol produced in the intestine is oxidized within the organism into indoxyl, which, in combination with sulphuric acid as indoxyl potassium sulphate, forms the basis of the well-known indoxyl or indican secretion of the urine. This reaction is in various derangements of digestion often more pronounced than in health, which suggests the inference that an unusual quantity of urine has been formed in the intestine and absorbed from it. The author considers himself justified by his study and experiments in believing that prolonged and excessive indol absorption is capable of causing headache, especially frontal headache, abnormal cephalic sensations, and indisposition for mental and physical exertion. The latter condition, if prolonged, may perhaps form the basis of a neurasthenic state. The subject is one for further study.

Secretion.—The known facts with regard to the secretion of urine are explained by assuming

that a watery exudation free from proteid is formed in the glomeruli, and that this becomes concentrated through the tubules, either by the absorption of water and certain salts or by a certain secretion of urea, uric acid, etc. The process has been regarded as one simply of filtration by Ludwig, and as besides filtration involving the secretory activity of the glomerular endothelium by Heidenhain. The experimental evidence collected by E. H. Starling in his study of the subject goes to show that the glomerular epithelium may be looked upon as a simple filtering membrane resembling in many particulars a membrane of gelatin. When the pressure in the glomerular capillaries rises above from 25 to 30 millimetres Hg, the measure of the osmotic pressure in the capillaries, filtration takes place through the glomerular epithelium, the filtrate representing simply plasma minus proteid. The higher the pressure in the glomerular capillaries the more rapidly would this process go on.

An account has been published by Prof. Emil Fischer of his researches on uric acid and the constitution of the substances chemically related to it, such as paraxanthine and heteroxanthine, which are associated in urine; xanthine, adenine, and guanine, which probably form part of the nucleins of cells; and theobromine, theophylline, and caffeine, the physiologically active constituents of tea, coffee, and cocoa. An accurate knowledge of the constitution of these substances is, in consequence of their relations, of great importance to physiologists, while a satisfactory process for utilizing uric acid in the synthesis of theobromine or caffeine would possess therapeutic interest as well as commercial value. Prof. Fischer's studies have led to a clear knowledge of the relationship that exists between these complex products of animal and plant life, and are believed to have made their commercial preparation possible.

The action of pancreatic juice on proteids is regarded as associated with an alkaline medium. Some experiments bearing upon this point have been made by B. K. Rachford, who, having obtained the pancreatic juice from rabbits, employed purified and dried blood fibrin for the determination of its solvent power, weighing the fibrin before and after the action of the juice had been exercised upon it. In some preliminary experiments he found, in opposition to Messrs. Chittenden and Albro, that when fresh rabbit's bile is added to the fresh pancreatic juice of the same animal, the proteolytic power of the juice acting on neutral fibrin is stimulated to a marked degree. In most of the experiments the juice was able to do one fourth more work by reason of the presence of the bile, which is entirely in favor of the value of alkalinity in promoting the action of the pancreatic juice. The presence of bile seems to limit bacterial action or the action of organized ferments on the albuminous fermentations. But when fibrin or other proteid is ingested into the stomach it combines with a certain proportion of hydrochloric acid, and the author, in endeavoring to determine the effects of the addition of hydrochloric acid outside the body, found that when fibrin was one half saturated with hydrochloric acid (no free hydrochloric acid being present) it was as readily acted upon by pancreatic juice as is neutral fibrin. When, however, the fibrin was nine tenths saturated with hydrochloric acid the proteolytic action of the juice was retarded; whence the conclusion may be drawn that the acidification of the proteid by the acid of the gastric juice to a certain moderate extent does not interfere with

the action of the pancreatic juice, though when it is fully saturated the action is impaired. From all the evidence Mr. Rachford has been able to obtain he is led to believe that the conditions which prevail throughout the small intestine in carnivorous animals are everywhere favorable to the proteolytic action of pancreatic juice.

In continued experiments by Wakelin Barratt on the discharge of water and carbon dioxide from the surface of the body, the influence of varnishing upon the aqueous discharge from the skin was determined and the mode in which water and carbon dioxide escape from the free surface was further elucidated. It was found that when the skin is varnished the elimination of water is diminished but not abolished, the diminution amounting in the experiments to 78.1 per cent. of the normal output. The behavior of the skin in dry inflammation has been shown to be similar, the diminution of output in this condition amounting in the experiments made to 56.3 per cent. In both cases the diminution is due to a mechanical blocking of the sweat ducts. In each case the incompleteness of the arrest of the aqueous discharge from the skin is due to the circumstance that this has a double origin: part escapes by the sweat ducts, either by appearing at their orifices or by diffusing from them into the horny epidermis and being thence discharged externally; the rest diffuses directly from the rete through the horny epidermis into the external air, this being made possible by the property which the horny epidermis possesses of taking up water in small amount. The water escaping by the sweat ducts directly and indirectly was found, in the experiments made, to be approximately equal in amount to that passing through the horny epidermis from the rete. The elimination of carbon dioxide by the skin is simpler than that of water, being essentially a single process, namely, that of diffusion through the horny epidermis.

It having been shown that after treatment with alcohol the liver, the blood, and various other tissues contain an amylolytic zymin, Noel Paton undertook to determine whether the liver, where amylolysis is so active during life, yields a stronger diastase than the blood and other organs after treatment with alcohol. Comparisons of the amylolytic activity of the liver, blood, and kidney gave no evidence that the liver, after treatment with alcohol, yields an amount of diastase in excess of that yielded by the kidney or by the blood. Indeed, in several instances the amylolytic activity of the blood and kidney was found to be greater than that of the liver. The amylolytic action of the liver after treatment with alcohol is not proportionate to its action in the fresh condition immediately after the death of the animal, and is frequently more powerful. So far the evidence we possess does not dispose of the possibility that the zymin is a product of the death and disintegration of cells. Even if such evidence as we have of the actual existence of a zymin be accepted, the experiments recorded show that the part it plays in hepatic amylolysis is uncertain. The idea that hepatic amylolysis is due to a zymin is in the view of the author strongly opposed by the observations referred to and by the experiments of Cavazzini.

It is found by MM. Lannelongue and Gaillard that the toxicity of the urine of children is inferior to that of the urine of adults, but is largely increased in cases of acute appendicitis. The color of the pathological fluid is also more marked, and its density and the amount of extractives present are greater.

Muscular System.—In all forms of considerable muscular exertion respiration through the open mouth is observed in healthy men. The breathing is of a "panting" nature, especially when the man feels hot. The work of Geppert and Zuntz shows that in animals muscular activity is accompanied by an increase in the oxygen and a decrease in the carbon dioxide of the blood. The hyper-pnoea of muscular exercise is, they consider, due to the effect of the same product of muscular energy acting on the nervous system. There appear, according to M. S. Pembrey, to be two other causes, one cardiac, the other the increased heat of the body, of which the latter is considered in the author's preliminary paper. The values obtained in the mouth in Mr. Pembrey's experiments and recorded in his communication are too high for the temperature of that part of the body immediately after exercise, for the thermometer was retained for at least ten minutes in the closed mouth. The observation was made in a warm room, and during the time of making it the temperature of the body was becoming more and more equal in its various internal parts. In the experiments respiration only took place through the mouth when there was actual and imperative need so to breathe. The author suggests that buccal respiration in man may play a part in the regulation of temperature during exercise. It increases the loss of heat. The temperature observed in the mouth in such cases is not a measure of the internal heat of the body.

Experimental researches in biothermogenesis pursued by M. Raphael Dubois through several years upon marmots have led him to the conviction that the heat produced by organisms, particularly in the muscular system, should not be regarded as simply a waste of physiological labor, for elimination with the excreta, but a condition of improvement useful and even necessary to the performance of the physiological functions. In order to a more complete demonstration of these facts he has undertaken to compare in the same individual marmot the action of a muscle normally and physiologically cooled with that of the same muscle normally and physiologically warmed. Conclusions are drawn from these experiments that the time lost from a muscular contraction is one third shorter in a warm than in a cold animal; that the duration of the period of increasing activity and of decreasing activity as well are one half shorter in the warm marmot; that tetanization is obtained with a number of excitations three times less in the warm marmot; that the force of work is greatly augmented in the warm marmot, which can not only lift heavier weights, but can raise them to a greater height and in a shorter time. The ratio of the weights raised is ten times higher in the warm animal; the muscle of the cold animal disengages less heat for the same excitation and a smaller weight raised; muscular fatigue is manifested much more quickly in the muscle of the warm marmot than in that of the cold one. The same effect is produced with the isolated cardiac muscle of the animal.

Nervous System.—Prof. G. Golgi finds evidence from the action of certain reagents of the presence of a special investing membrane in various nerve cells, and also of a peculiar reticular structure in the interior of nerve cells. The cell covering disclosed by his experiments is sometimes continuous and homogeneous and sometimes appears in the form of delicate scales deposited side by side. More frequently, however, it presents the appearance of a fine and delicate network,

with uniformly round and regular meshes, which completely invests the cell body and is prolonged upon the protoplasmic processes of the cell as far as to the second and even the third division, but on these it becomes a more continuous and homogeneous layer. The scalelike and striated characters of the investment are particularly observable in the cells of Purkinje in the cerebellum. The second structure mentioned is a delicate network which the author shows to exist in the interior of the cell—a reticular structure that is so distinctive as to enable it to be easily recognized even when seen only in a small segment of a cell. It consists of flattened fibers rendered brown by the action of the reagents used in the experiments, which unite in nodal points. These nodes appear to be small disks of circular form, with transparent center. The filaments near the periphery seem to be upon the same plane, but nearer the center they dip in all directions into the cell substance; peripherally they terminate in pyriform swellings from which again very fine filaments proceed toward the periphery. Prof. Golgi regards the presence of the external continuous or reticulated investment of the nerve cell as opposed to the view that nerve impulses are propagated by continuity; for it would act as an insulator.

Twenty recorded cases of transplantation of nerves are referred to by Dr. R. Peterson in an article in the American Journal of the Medical Sciences. The median nerve was operated upon in 7 cases, the ulnar in 3, the median and ulnar nerves in 2, the muscular-spiral nerve in 7, and the sciatic in 1. Eight of the operations were primary and 12 were secondary. The time from the injury to the operation varied from forty-eight hours to one and a quarter year. Eight out of the 12 cases of secondary operation showed improvement in sensibility or motion, while only 4 out of the 8 cases of primary operation improved. The interval between the ends of the divided nerves varied from 3 to 10 centimetres, but distance did not seem to affect the result. In some cases the transplanted segments were from the sciatic nerves of dogs, in 3 from rabbits, in 1 from a kitten, in 1 from the spinal cord of a rabbit, and in 5 from recently amputated limbs. In 9 cases catgut was used to unite the implanted segments to the divided ends, in 3 silk, and in 1 kangaroo tendon. No case recovered entirely. The nearest approach to complete recovery took place in the case longest under observation, in which at the end of six years sensibility had entirely reappeared, and the only weak muscle was the abductor pollicis. In 3 cases recovery of sensibility and motion was practically had, and the hand was useful. Muscular power improved in 4 cases. Sensibility completely returned in 4 cases, nearly completely in 3 cases, and was improved in 4 cases. Improvement in either motion or sensibility took place in 12 cases, and no improvement in either in 6 cases. The average time in which sensibility appeared after the operation was about ten days. Motion returned in about two and a half months.

The pathological changes produced in the brain by sunstroke have been regarded as involving an acute parenchymatous degeneration of the neuroses resulting from the action of an autogenous poison which was supposed to be the basis of the symptoms. The subject has been further studied by Dr. James Ewing from the necropsy of a deceased patient, in which a microscopical examination showed the anterior cornu cells of the spinal cord to have undergone characteristic changes, appearing diffusely stained and pale

blue. The nucleoli were enormously swollen and pale, and were surrounded by a number of large, deeply staining granules. Some cells still showed traces of Nissl's bodies, either of the original form and size, or swollen and fused together, or evenly and minutely subdivided, but invariably very pale. Many nerve cells appeared to be entirely devoid of chromatic bodies. The nuclear membrane was often invisible. In the medulla nearly all the nerve cells showed the more advanced changes noted in the spinal cord. Here many cells were colorless. Some of the Purkinje cells of the cerebellum were but slightly altered; many contained only a few slender and very pale chromatic masses, and some were devoid of chromatic bodies. In the cerebral cortex the usual nuclear changes were very prominent and the chromatolytic changes were advanced, most of the cells failing to show distinct chromatic bodies or network. In the posterior spinal ganglia the chromatic bodies in most of the cells were pale and minutely subdivided, while many were colorless. The nucleoli of these cells were much swollen. In another case only slight lesions were disclosed in the bulbo-spinal cord and cerebrum, and marked changes were found only in the cerebellum.

In experiments upon the relative acuteness of the senses of hearing, touch, taste, and smell in the blind and persons of normal vision, Prof. H. Griesbach has found that no remarkable differences exist as to tactile impressions, and such as do exist are in favor of the seeing. No difference was found in the capability of localizing impressions of sound. As a rule, in both the seeing and the blind, the use of both ears gives better impressions than the use of one alone. No difference in the acuteness of hearing was found, and no relation was observed in either blind or seeing between the acuteness of hearing and the power of localizing sounds. There seemed to be no difference between the two classes in acuteness of smell. The blind become fatigued in the execution of manual labor sooner than do those of equal age who see. They are more fatigued with manual than with mental work, which is not the case with the seeing of the same age. The results were substantially parallel as between the two classes in the experiments on the accuracy or the fallaciousness of determinations of touch. These results are in many respects opposed to generally received opinions, for it is usually supposed that deprivation of sight is accompanied with better development of touch and hearing.

Two cases of pathological changes in the nervous system accompanying delirium tremens are reported upon by Dr. Ewing, of Columbia University. Intense and general capillary congestion was found on post-mortem examination in the brains of both subjects. The great "motor" cells of the spinal cord and medulla were extensively affected and nowhere normal. The "chromatic rods"—the normal stored-up pabulum of the nerve cell which is used up during functional activity—were almost entirely disintegrated and destroyed or absent in those cells. In many other cells this "chromatolysis" was even more advanced, and the cell body showed transparent areas (hyaline degeneration). The outlines of many cells were irregular and ragged (erosion of surface) and the nuclei were dislocated from their normal position, sometimes in so marked a manner as to project from the side of the cell body. Similar chromatolytic changes of a less extent were found in the cerebellum (Purkinje's cells). In the hemispheres the cortical pyramids (archyochromes) failed to exhibit the usual network or

striated arrangement of these rods, and those which were present were either feebly colored and indistinct or broken up into coarse granules.

Of the results of experiments as to the practicability of rendering considerable areas of the body anæsthetic by the action of cocaine injected directly into the spinal canal, Dr. Bier, of Germany, reports that by such employment of from 5 to 10 milligrammes of cocaine hydrochlorate he produced anæsthesia of the lower limbs, and was able to perform a number of ordinarily severe operations painlessly. The only drawbacks resulting from the administration were severe headache, nausea, and vomiting. Making some exact experiments to determine more precisely the effects, Dr. Bier and his colleague, Dr. Hildebrand, subjected themselves to the action of the drug injected into the spinal subdural space. It was found that anæsthesia of the whole of the lower extremities supervened in from five to eight minutes after the injection and a dose of 5 milligrammes of the cocaine was sufficient to make this condition of anæsthesia last for about forty-five minutes, after which normal sensibility slowly and gradually returned. The after-effects were, however, not always pleasant and were like those found in the surgical cases. The authors therefore decided that further experiments should be made on animals, so that the effects might be more fully studied with a view to obviate the disagreeable effects produced by the drug and to enhance its usefulness.

Taking advantage of a case in the practice of one of the authors in which there was a constant issue of cerebro-spinal fluid from one of the nostrils, the properties of that fluid have been studied by Drs. St. Clair Thomson, Leonard Hill, and W. D. Halliburton. The fluid is characterized by its clear watery character, its low specific gravity, the small quantity of proteid in it, the absence of albumin, and the presence of a substance which reduces Fehling's solution but is not dextrose. The substance is possibly related to pyrocatechin. The contrast between such a fluid and the mucin-containing fluid of ordinary nasal hydrorrhea is very marked. Analysis of the fluid that escaped in the evening showed it to be more watery than that collected early in the morning. Dr. Hill found his theory confirmed that the rate of secretion of the cerebro-spinal fluid when the crania-vertebral cavity is opened depends directly upon the difference between the pressure in the cerebral cavities and that of the atmosphere. At the same time it was shown that cerebral capillary pressure varies directly and absolutely with vena cava pressure. On the other hand, cerebral capillary pressure varies directly, but only proportionately, with aortic pressure, for the peripheral resistance lies between the aorta and the cavities. It follows from these considerations that the easiest methods of raising the cerebral capillary pressure in man are by compression of the abdomen, by the assumption of the horizontal posture and by straining or forced respiratory effort with the glottis closed. By all these methods the vena cava pressure is considerably raised, and by the last method the venous inlets into the thorax may be blocked and the pressure in the cerebral capillaries raised to something like aortic pressure. It is to be observed that when the horizontal position is assumed the rise of venous pressure may be compensated by the fall of arterial pressure, which normally occurs when the body is at rest. This is, no doubt, the case during sleep; also that while by a forced expiratory effort the aortic pressure is lowered, the total effect on capillary pres-

sure is a very great rise. In the case of the special subject of the paper the flow of the cerebro-spinal fluid was accelerated by all the circumstances enumerated as raising the cerebral capillary pressure. The increase of flow is, moreover, accompanied by a decrease in the percentage of solid matter. The results of injecting into animals cerebro-spinal fluid removed from cases of brain atrophy, especially from cases of general paralysis of the insane, were studied by Dr. Halliburton and Dr. Mott. The fluid contains a toxic substance, choline, which is supposed to be derived from the disintegration of leithicin in the brain. Injection of such fluid into the jugular vein of animals anesthetized with ether causes a marked lowering of arterial blood pressure, which is partly cardiac in origin, but principally due to the local action of the poison on the neuro-muscular apparatus of the peripheral vessels, especially in the splanchnic area. The fluid obtained from the present case was also injected in a similar way, with negative results.

Glandular System.—The structure of the prostate gland has been studied and is described in detail by Dr. George Walker, of Baltimore, who has also paid particular attention to the function of the organ. On this subject he has observed that in the fluid taken from the testes of the dog the spermatozoa were motionless, and also that there was no movement in those from the head of the epididymis. Slight movements might be observed in the fluid from the tail of the epididymis, especially in those parts where the fluid was thin. There were very slight movements in the fluid contained in the vas deferens, except where the fluid was of thinner consistence. Distinct but not very lively movements were observed in a mixture of semen from the testes and the prostatic secretion. Only in a mixture of semen from the epididymis with the prostatic fluid did the spermatozoa present lively and persistent motion. The author endeavored to ascertain the functions of the colliculus seminalis which has been thought by some to undergo a kind of erection and thus to occlude the urethra, preventing the passage of the semen into the bladder during emission. He was unable to substantiate this view, but believes that the organ may interfere with the contraction of the sphincter vesical externus of Henle. The longitudinal fasciculi of the membranous portion of the urethra by their contraction dilate the distal segments of this portion of the urethra, and this tends to drive the semen forward by a process of exhaustion.

Experiments by J. R. Bradford on the effects of partial removal of the kidney upon metabolism show that excision of a wedge from one kidney tends in most cases to be followed by a variable amount of atrophy of this kidney, whether the second kidney be removed or not; that excision of a part of one kidney or even of portions of both kidneys is an operation not followed by death, even up to the removal of approximately two thirds of the total kidney weight, and often there is no great disturbance of health, except a variable amount of wasting, generally transitory and slight in duration; that if approximately three quarters or more of the total kidney weight be removed prolonged survival is impossible, death occurring in from one to six weeks. Death is apparently dependent rather upon the quantity of kidney substance removed than upon any mutilation inflicted by the operative procedures. After summarizing the effects of nephrectomy upon the urinary substance and processes, the author suggests that when the amount of available kidney substance is greatly reduced,

the tissues of the body, and more especially the muscles, rapidly break down and liberate urine. He has no observations to show whether this is dependent upon the cessation of the action of an internal secretion that is supplied normally by the kidney.

Two cases of pathological thyroid structure at the base of the tongue are reported by Dr. H. L. Williams, of Philadelphia. In one case the growth was about an inch and a quarter wide and an inch thick, oval, rounded, and smooth on the surface, except at the top, where it was superficially ulcerated and covered with a whitish membrane. A small portion was removed, and showed, in addition to the signs of inflammation, typical thyroid structure containing colloid material. It was situated in the same position as the growth just mentioned, and was but little smaller. It was soft and spongy in appearance, surrounded by a fibrous capsule, and showed a delicate reticulum of fine filaments extending through it in all directions. The surface was reddish, in some areas whitish, glistening, and resembled the thyroid gland. The microscope showed a network of acini separated by a delicate reticulum of connective tissue. The acini were as a rule dilated and cystic, and filled with colloid material. The diagnosis of cystic thyroid tissue undergoing colloid degeneration was established. An embryological explanation of thyroid tissue thus situated is suggested by the author.

Miscellaneous.—Experiments made by Prof. W. O. Atwater under the auspices of the United States Department of Agriculture, Wesleyan University, and the Storrs Experiment Station had for their purpose the study of the laws of nutrition, and particularly the inquiry whether alcohol was capable of taking any part in that function. The experiments were continued for from four to twelve days each, while the subject of them lived day and night in the chamber of the calorimeter. Of six experiments made with a variety of diets which are reported upon, alcohol was made a part of the diet in two. All the food and drink supplied to the body, and all the excretory products given off from it, even to the air before and after it was breathed, were measured and analyzed. Further, the energy latent in the material supplied to the body and in the excretory products given off, as well as the energy transformed by the body and given off in the form of heat, were carefully determined. The income and outgo of energy were thus exactly ascertained. When results had been obtained showing what amount of food material was required for the maintenance of the body of the subject when at rest, and how much more was necessary to enable him to perform a measured amount of muscular work, a certain quantity of the fuel constituents of the food was taken out and a chemically equivalent amount of alcohol was substituted. The daily portion included about two and a half ounces of absolute alcohol, and was administered systematically. The results of this administration showed that the alcohol was as completely oxidized within the system as any ordinary food; that in this oxidation all of the potential energy of the alcohol burned was transformed into heat or muscular energy; and that the alcohol protected the material of the body from consumption as effectively as the corresponding amounts of sugar, starch, and fat. These results were confirmed by those of a number of other experiments made afterward, which were practically identical. Different forms of alcohol tried on different subjects gave substantially the same results. The author utters a caution against the hasty drawing of

too wide deductions from the experiments. They simply show that the limited quantity of alcohol that was given with other food in the diet of healthy men for periods of a few days was almost completely burned in the body and yielded a certain amount of energy, and that this energy was utilized in the body as is the energy of the hydrocarbons of ordinary food. No other relations or effects of alcohol in the body come under the scope of the investigation.

Dr. A. Campbell White has obtained results from experiments on the application of liquid air to the tissues of the body which encourage the belief that that substance may come into use as a local anæsthetic, and possibly for other medical and surgical purposes. The difference in temperature between liquid air and the human body is so great that it affords a unique means of producing a sudden and extreme shock to a localized part of the body without localized destruction of tissue and without affecting the general system.

In a study of the coagulation of proteid by electricity, W. B. Hardy has found that under the influence of a constant current the particles of proteid in a boiled solution of egg white move with the negative stream if the reaction of the fluid is alkaline, and with the positive stream if the reaction is acid. The particles under this directive action of the current aggregate to form a coagulum.

Commenting on a reported case of a family of three children, two of whom, boys, have the right eye hazel and the left eye blue, and the third, a girl, the right eye blue and the left hazel, the father having blue eyes and the mother hazel, the Lancet says that the condition described, though uncommon, is not extremely rare. Two forms of heterochromia are recognized by ophthalmologists—one in which one eye only is parti-colored, a segment of the iris being of one color and the remainder of another, "heterochromia unilateralis"; and the other, in which the iris of one eye is different in color from that of the other, "heterochromia bilateralis." The dark color of the iris in the southern nations and in the yellow races, as in the Chinese, is due to pigment in the superficial cells and in the cells of the stroma. The blue iris observed in the northern nations is due to the absence of pigment. It has been thought that eyes presenting a difference in color in their irides are not perfectly developed, but it does not appear that there are any statistics bearing upon the question. The influence of heredity on the color of the eyes has been shown to be marked.

Investigating the question of the presence of a nucleus in yeast cells, H. Wager found in all the species of *Saccharomyces* examined what he called a "nuclear apparatus"—that is, a special portion which appeared to be set apart to perform the function of a nucleus. This nuclear body is perfectly homogeneous, even when observed under the highest powers of the microscope, and appears to correspond rather with the nucleole of higher plants. One of these bodies is found in every yeast cell. In addition to the nuclear body, there is in every yeast cell a structure of the nature of a vacuole, which appears to be an essential part of the nuclear apparatus, and to possess some of the attributes of a nucleus. This structure has often been mistaken for the nucleus itself.

In his microscopical observations of the structure of the skin in man and the lower animals, M. Ranvier has found that the Malpighian layer is characterized by the presence of numerous fibrils imbedded in the cell protoplasm, and he has therefore named it the stratum filamentosum.

The filaments are not affected by water even when boiling; they swell in acids and in alkalies, and are colored violet with hæmatoxylin and red with carmine. With thionine they assume a pale green tint or remain uncolored, though that substance renders the cell protoplasm intense violet. The filaments are therefore not simply processes of the protoplasm. They are doubly refracting. Like the granules of eleidine in the stratum granulosum or like starch grains they are products of cell activity. The stratum lucidum of Oehl and Schroen was found to be in reality double. To demonstrate this, sections of skin made after immersion for an hour in osmic acid, then for twenty-four hours in alcohol, are colored with picrocarmine and examined in glycerin. The eleidine is not colored, because it has undergone osmic metallization. The true stratum lucidum is not colored either by the carmine or by the osmic acid, but immediately beneath it and above the stratum granulosum is a thin layer which assumes a bright red color. It is composed of only two or three layers of transparent cells. Its external surface is smooth, its internal is festooned. It is this layer which in M. Ranvier's opinion really separates the two chief layers of the skin, the only ones formerly admitted—viz., the corneal layer and the Malpighian layer. The author names it the stratum intermedium. While it colors deeply with carmine, it does not color at all with purpurine. After hardening in alcohol it remains uncolored with thionine, while this stain colors the stratum corneum verum green and the stratum filamentosum violet. The nuclei of the cells of the stratum intermedium are atrophied and their investing membranes present epidermic fibrils which are wound like the threads in a cocoon. According to M. Ranvier, then, no less than seven distinct layers can be demonstrated by the aid of staining agents to be present in the epidermis.

PORTO RICO, an island of the West Indies, formerly a colony of Spain, ceded to the United States by the treaty signed at Paris on Dec. 10, 1898, and ratified by the United States Senate on Feb. 6, 1899, and by the Queen Regent of Spain on March 17, 1899.

Area and Population.—The island is about 43 miles broad and has an extreme length of 108 miles. The area is 3,688 square miles. The population in 1887 was 814,708, of whom over 300,000 were negroes and a large part of the remainder of mixed blood. The population was composed of 399,022 males and 399,544 females. The population of the chief towns was: Ponce, 42,388; Utuado, 31,209; San Juan, the capital, 26,387. In 1899 there were 957,000 inhabitants on the island. San Juan had 32,500 and Ponce 56,000.

Commerce and Production.—The most valuable product is coffee, of which 26,655 tons were exported in 1896. The export of sugar was 54,205 tons; of molasses, 14,740 tons; of tobacco, 1,039 tons; of cattle, 3,178 head. The value in United States currency of the total imports in 1895 was \$16,155,056, against \$18,316,971 in 1894; the value of exports was \$14,629,494, against \$16,015,665. The chief imports in 1895 were rice for \$2,180,004; fish, \$1,591,418; meat and lard, \$1,223,104; flour, \$982,222; manufactured tobacco, \$663,464; olive oil, \$327,801; cheese, \$324,137; wine, \$305,656; soap, \$238,525; iron, \$224,206; vegetables, \$192,918; provisions, \$171,322; jerked beef, \$133,616; coal, \$119,403. The value of the coffee exported in 1895 was \$8,789,788; of the sugar, \$3,747,891; of the tobacco, \$646,556; of the honey, \$517,746. The imports of Porto Rican produce into Spain in 1895 were reported as \$5,824,694 in value, and

that of Spanish exports to Porto Rico as \$8,572,549. The exports of merchandise from the United States to Porto Rico were valued at \$1,833,544, and of imports to Porto Rico into the United States at \$2,296,653, of which 98 per cent. represented molasses and sugar. The imports from Great Britain in 1895 were \$1,765,574; from the British West Indies, \$1,709,117; from Germany, \$1,368,595; from France, \$251,984; from Cuba, \$808,283. The exports to Cuba were \$3,610,936; to France, \$1,376,087; to Germany, \$1,181,396; to Great Britain, \$1,144,555; to the British West Indies, \$521,649. When the disturbances in Cuba and the Spanish interdicts cut off the supply of the Havana leaf for export a stimulus was given to the raising of tobacco in Porto Rico as a substitute. The tobacco grown on the island is inferior and variable in quality, the cultivation and curing being carelessly attended to, but some plantations produce a quality approaching that of the best Havana. The coffee crop of 1896 was valued at \$13,379,000; the product of sugar and molasses at \$5,000,000. The export of coffee in 1897 was about 55,000,000 pounds. The quality of Porto Rican tobacco is held in high estimation in Europe. France has taken the finer grades and Spain the poorer, but the bulk of the crop has usually gone to Cuba. The prices have been too high for much exportation to the United States. The sugar cane can not be grown as easily now as in former times, before the soil was partially exhausted, when the ratoon sprang up without replanting for six or seven years in succession, and the yearly crop of sugar reached 8,000 pounds an acre. Now the stocks will ratoon for four or five consecutive years, but there is little land that produces more than 4,000 pounds an acre, and the average is not much over 2,000 pounds. The value of the commerce of the island and its distribution, according to the Spanish official reports, are shown in the following table:

COUNTRIES.	Imports.	Exports.
Spain	\$7,152,000	\$5,067,000
United States.....	3,750,000	2,814,000
Cuba	689,000	3,515,000
Germany	1,815,000	2,118,000
France	215,000	3,088,000
British colonies.....	2,359,000	264,000
Great Britain	1,756,000	77,000
All other countries.....	618,000	1,692,000
Total	\$17,868,000	\$18,575,000

The export of coffee was valued at \$12,223,000; sugar, \$4,412,000; tobacco, \$1,194,000; cattle, \$221,000.

Navigation.—There were 1,077 vessels, of 1,079,236 tons, entered at the ports of Porto Rico during 1895, of which 150, of 296,424 tons, arrived from Spain; 190, of 182,165 tons, from Cuba; 171, of 180,772 tons, from the United States; 109, of 135,349 tons, from England; 50, of 79,495 tons, from Germany; 44, of 55,908 tons, from France; 160, of 49,997 tons, from the British West Indies; 25, of 36,089 tons, from Venezuela; 59, of 20,103 tons, from Santo Domingo; 16, of 12,751 tons, from Belgium; and 45, of 11,140 tons, from the Danish West Indies. The total number of vessels cleared was 1,070, of 900,379 tons, of which 262, of 358,427 tons, cleared for Cuba; 284, of 201,051 tons, for the United States; 121, of 126,662 tons, for Spain; 48, of 65,926 tons, for France; 151, of 44,285 tons, for the British West Indies; 47, of 24,528 tons, for the Danish West Indies; 25, of 32,740 tons, for Germany; and 60, of 21,594 tons, for Santo Domingo.

Communications.—There were 137 miles of

railroads in operation in 1898 and 170 miles were not yet completed. The telegraphs had a length of 470 miles. Transportation away from the railroads and the made highways, which have a total length of 150 miles, is carried on by means of pack horses and mules.

American Administration.—Gen. John R. Brooke, who as president of the Evacuation Commission took over the administration from the Spanish captain general when the Spanish garrison was withdrawn, found in office the Insular Cabinet selected by Capt.-Gen. Mavin, to be responsible to the elective Legislative Assembly that was to have assembled in February, 1898, under the autonomous Constitution granted to Porto Rico by the Spanish Government in November, 1897. Owing to the beginning of the war between Spain and the United States, the autonomous Government was never organized. Nothing was done toward it beyond proclaiming the Constitution and appointing the six secretaries composing the Cabinet. Gen. Brooke, who supposed that their selection was made through an expression of the will of the people, confirmed them in office. For economical reasons their number was reduced to four, and before the complete occupancy of the American troops two of these resigned and others were appointed in their places. Gen. Brooke had taken the Insular Cabinet as a guide to conform the military rule to the desires and customs of the people, and to allow the existing laws to operate undisturbed as far as they were compatible with American principles of justice. He announced that all the laws of the land not contrary to the Constitution of the United States would be enforced. Although the island was divided into military districts, over which the officers of the army had full authority, the machinery of the municipalities and the courts was not arrested nor altered.

When Gen. Guy V. Henry entered upon his duties as Governor General the Insular Cabinet stood as follows: Secretary of State and President of the Council, Luis Muñoz Rivera; Secretary of Finance, Cayetano Coll y Toste; Secretary of Justice, Juan Hernandez Lopez; Secretary of Fomento, or Public Works and Education, Salvador Carbonell. After two months of trial Gen. Henry, on Feb. 6, abolished the Insular Cabinet, which Gen. Brooke had consulted only as a body, requiring a unanimous decision regarding the suspension of any law, the appointment of officials, or other matter on which he asked advice, although he did not always follow the recommendations of the Council. Gen. Henry substituted for the collective Council of Secretaries heads of the Departments of State, Finance, Justice, and the Interior. Friction had arisen over the temporary substitution of American officers to take charge of education and public works and in regard to the introduction of American methods in the administration, in consequence of which the Cabinet had offered its resignation as a body previous to its dissolution. Gen. Henry found Dr. Carbonell too dilatory in carrying out his projects for the improvement of the public roads, and therefore appointed an American officer to conduct this branch of the department. The Secretary of Fomento thereupon tendered his resignation, and the Cabinet determined to resign as a whole if the slow and cumbersome method of dealing with all matters through the President of the Council were changed, as the Governor General resolved it should be. Major Pierce was appointed Director of Public Works after the retirement of Dr. Carbonell, and Gen. Eaton was assigned to the Department of Public Instruction.

The President of the Council, who had been instrumental in obtaining autonomy from Spain, was disposed to arrogate to himself the authority and control for which Gen. Henry was responsible, and in this he was supported by his colleagues, who claimed that the Cabinet as representative of the people, should exercise a responsible control over the internal policy and the civil affairs of the island, and act as the delegates of the people's will in their dealings with the Governor General. They declined to continue in office under the new arrangement longer than the time necessary for the Governor General to choose the new heads of departments. To do so would make them unpopular with the Liberal party, to which they belonged, of which Muñoz Rivera was the head, and which comprised the great majority of the people. Gen. Henry reappointed Cayetano Coll y Toste, who was in sympathy with the new system, Secretary of Finance. Francisco Acuña was made Secretary of State, Herminio Díaz Navarro Secretary of Justice, and Federico Degetan y González Secretary of the Interior. The last belonged to the Radical party, while the others were Liberals. Thus the idea of party government was banished from the administration, which under the new system proceeded in a far more expeditious and businesslike way than was possible under the old system. Gen. Henry invited the people to address him directly if they had complaints to make regarding local abuses. He called a convention of delegates from the Liberal, Radical, and Independent parties, who agreed to sink their past differences and work together for the good of the island, without regard to party affiliations. The party feeling was, however, so strong that the Governor General arranged to give equal representation to the Liberals and Radicals in the 70 municipal councils. For this purpose lists of eligible persons were made out by the existing councils, the only qualification being the payment of municipal taxes. From these lists the Department of State, which has charge of municipal affairs, public order, health, and elections, as well as of correspondence with Washington, selected names, and the Governor General appointed the councilmen. Subsequently the power of appointment was delegated to the Secretary of State. The assumption of power over municipal affairs was rendered necessary by the maladministration of the Liberal party in all parts of the island. The appointment of *alcaldes* was also committed to the Secretary of State. In the other departments of Government also the secretaries were intrusted with the guidance of affairs as soon as they learned the plan and method that the Governor General wanted to introduce; but he always acted when complaints were made or exceptions taken to the decision of a secretary, first communicating the complaint to the latter and getting a written explanation of his conduct. Subsequently the various governmental departments became bureaus, each with a United States army officer at its head. The departments under this system administered respectively sanitary affairs, education, the treasury, customs, the judiciary, and police. In order that he might have a ready means of communication with native society and opinion, he created the office of chief secretary, which was filled acceptably by Cayetano Coll y Toste.

Gen. Henry was succeeded as military governor by Gen. George W. Davis in the beginning of August. The new Governor General undertook to pave the way for the establishment of territorial government. All his reforms lay in the

direction of the substitution of the civil power for military rule. He restored the writ of *habeas corpus*, created a board of prisons, instituted a United States provisional court, introduced trial by jury, and secured the recognition, with improvements, of the code of laws and judicial practice previously existing in the island.

The work of political and industrial reconstruction when it was beginning to show good results was suddenly interrupted by a natural calamity more disastrous than the war had been. A hurricane of the most destructive kind swept over the island on Aug. 8, blowing down towns and houses, stripping off the mangoes, avocados, breadfruit, bananas, and plantains, on which half the people subsist, uprooting coffee trees, breaking the coconut and other palms, and laying waste the gardens and plantations. About 3,000 people were killed by falling walls or drowned in the floods that followed the storm, and 200,000 were left houseless, penniless, and famishing. The storm was most severe on the southern side of the island. Few of the planters and none of the peasants had money to rebuild, restock, and replant. The authorities at Washington at once loaded a transport with food to avert famine, and for many weeks rations were served out to the people. Private contributions were collected in the United States to aid the people to rebuild their dwellings and make new crops. One fifth of all the dwelling houses on the island were razed to the ground, and all the crops and most of the trees were ruined. A great many thousand cattle were drowned. Gen. Davis established a central board of relief at San Juan, and instituted boards all over the island to regulate assistance and distribute supplies. Work on the roads was extended to the utmost, so as to give employment to as many as possible. The erection of new houses and repairing of those that were partly ruined furnished work for a great many more, money for this purpose having been subscribed in the United States. The damage to buildings and machinery and to warehouses and stores of coffee, tobacco, and sugar, the loss of the sugar, coffee, and fruit crop, loss of live stock, damage to railroads and shipping, and injury to plantations amounted to more than \$30,000,000. All but the smallest of the coffee trees, which take five years to mature, were destroyed. Only the most sheltered banana groves escaped, and where the sugar cane was left standing on a few plantations the machinery was wrecked. Most of the crops were mortgaged for advances from banks and money lenders, and therefore but few planters were in a position to give employment to the peons and renew the industrial and commercial activity of the island. The rations from the United States were in the beginning given out freely and indiscriminately. After two weeks, when the relief works were in full operation, only the old and infirm or young children were fed gratuitously, while to all able-bodied adults work was offered.

The prompt and liberal assistance received from the Government and citizens of the United States went a long way toward effacing the lingering jealousy, suspicion, and prejudice felt by the Porto Ricans against the Americans, whom they had generally welcomed on the hostile invasion of the island by United States troops, because they were eager to be delivered from the capricious favoritism and corrupt extortion of the Spanish rulers, but latterly had distrusted and disliked for the despotic and often unsympathetic military administration, which ignored the elements of political liberty and self-government en-

joyed even under Spanish administration. Gov.-Gen. Davis on Aug. 15 explained in a proclamation that, while an arbitrary government over any territory included within the United States is not contemplated by the American Constitution and laws, under those laws it is impossible to supply any other form of governmental control than the military over territory conquered by the armies of the Union until Congress shall by suitable enactment determine and fix a form of civil government. Two boards, composed of leading Porto Rican citizens, were called into consultation by the Governor General in regard to governmental reforms, and both boards were of the unanimous opinion that, as regarded the organization of the civil branch of the military government, the system then in force needed to be radically changed in some respects. Changes had already been effected and others were in preparation which would supply for the island a form of government, as respects its superior branches, tending ultimately to merge into the Territorial form, as applied in the United States to the portions of the national domain that are in the transition stage preparatory to full statehood. The Territorial government was expected to consist of governor, legislature, judiciary, secretary, attorney-general, treasurer, auditor, and bureaus or boards of public works, agriculture, prisons, health, charities, etc. Gen. Davis was instructed to direct his policy to the primary purpose of adapting the laws and administration to suit the transition, when ordered by Congress, into full Territorial autonomy. Complete autonomy for municipalities was first desired, and was to be instituted as rapidly as possible, the government of the towns to be as independent as it is in the United States; but a bad economic state existed in many municipalities, and all the towns needed assistance to extricate them from their difficulties. It was intended to furnish an opportunity, through carefully and honestly regulated elections, for the municipalities to govern themselves, and the Governor General promised to all towns absolute freedom from superior restraint as soon as they were able to govern themselves in accordance with the principles of law and justice. Complaints of dishonest, corrupt, and unlawful municipal administration were found on investigation to be justified. A plan for municipal elections was adopted by means of which educated men and business interests could have expression. The plan was explained to the accredited leaders of the Liberal and Radical parties, and both gave it their approval.

The insular commission appointed to study the conditions of Porto Rico, consisting of Gen. Kennedy, Judge Curtis, and Major Watkins, reported to Secretary Root on Aug. 30, after six months of investigation. It recommended a form of civil government to take the place of the military régime, and submitted for adoption a code of laws to be put in operation by Executive decree, as the enactment of general laws for the island by Congress would alter its status, making it a part of the constitutional territory of the United States. The system of civil government does not give to the Porto Ricans the elective franchise for any offices, nor does the code grant the right of trial by jury except in cases of felony, when they have the privilege of a trial in United States courts. There would be 5 supreme judges (3 Americans and 2 natives), 2 Federal judges, 3 district judges, and 11 probate judges; an attorney-general and 1 deputy; 1 district attorney and 2 deputies; 1 United States marshal and 2 deputies; a prosecuting attorney in each of the 7 judi-

cial districts; and an interpreter for each court. The commission recommended that the military force remain on the island, but be kept in the background. The scheme provides for a public-school system under a superintendent and board of education, comprising schools in all districts conducted in English by American teachers, with night schools for illiterate adults. All taxes that bear heavily on the poor should be repealed; also double taxation of nonresidents. A marriage law like those in the United States was recommended. The commissioners made no provision for elections because they were satisfied that the people of Porto Rico were not ready to exercise the elective franchise, but after the new laws have been in force for a few years and the schools have afforded opportunities for the people to learn they would become better fitted to enter upon the work of Territorial or State government. There was found to be great need of currency reform.

Gen. Davis reported in favor of the establishment as soon as practicable of a Territorial government, but one in which the United States should retain for some time the executive and the higher judiciary, and one with restricted suffrage. He found that the first year of American rule had disappointed a majority of the Porto Ricans, chiefly on account of commercial inactivity. Having deprived them of their former market, the United States should see that they find another. No sentiment in favor of independence was observable. Regulations were adopted for the holding of municipal elections in January, 1900, under a restricted franchise, giving the right of suffrage to about 3,000 persons in all the towns.

PORTUGAL, a kingdom in southwestern Europe. The throne is hereditary in the family of Saxe-Coburg-Braganza. The legislative power is vested in the Cortes, consisting of a Chamber of Peers, containing 52 hereditary, 13 spiritual, and 90 life peers, and a Chamber of Deputies, containing 120 members, who are elected for three years by the direct vote of all citizens possessing an elementary education or an income of 500 milreis. The reigning King is Carlos I, born Sept. 28, 1863. The Cabinet of Ministers, constituted on Aug. 18, 1898, at the beginning of 1899 was composed as follows: President of the Council and Minister of the Interior, José Luciano de Castro; Minister of Foreign Affairs, F. A. de Veiga Beirão; Minister of Finance, M. A. Espregueira; Minister of Justice and Worship, J. M. d'Alpoim; Minister of War, Gen. Sebastião Custodio de Sousa Telles; Minister of Marine and the Colonies, A. E. Villaca; Minister of Public Works, Industry, and Commerce, E. J. de Sousa Brito.

Area and Population.—The area of Portugal is 36,038 square miles, including the Azores and Madeira, which have an area of 1,510 square miles. The population of continental Portugal in 1890 was 4,660,095, and of the islands 389,634: total, 5,049,729. The number of marriages in 1896 was 30,580; of births, 143,908; of deaths, 110,332: excess of births, 33,576; emigration, 27,980.

Finances.—The estimates for 1900 make the ordinary revenue 50,773,581 milreis, and extraordinary 1,600,000 milreis. The ordinary expenditure is estimated at 51,607,057 milreis, and extraordinary at 2,312,239 milreis; total expenditure, 53,919,296 milreis, showing a deficit of 1,545,715 milreis. Of the ordinary revenue 11,891,601 milreis come from direct taxes, 5,277,500 milreis from registration and stamps, 24,301,830 milreis from indirect taxes, 1,122,200 milreis from additional taxes, 4,674,540 milreis from national property and other sources, and 3,505,910 milreis are

recettes d'ordre. Of the ordinary expenditure the civil list, the Cortes, etc., absorb 9,755,918 milreis; the consolidated debt, 18,124,354 milreis; loss on exchange, 500,000 milreis; the Ministry of Finance, 3,702,007 milreis; the Ministry of the Interior, 2,400,594 milreis; the Ministry of Justice, 1,002,578 milreis; the Ministry of War, 5,973,128 milreis; the Ministry of Marine and Colonies, 4,272,054 milreis; the Ministry of Foreign Affairs, 348,097 milreis; the Ministry of Public Works, 5,460,990 milreis; deposits, 69,337 milreis.

The foreign debt outstanding on Jan. 1, 1898, amounted to £62,106,508, of which £38,504,551 represent consolidated 3-per-cent. debt, £1,817,000 redeemable 4-per-cent. and £12,760,348 redeemable 4½-per-cent. debt, and £9,024,600 a loan secured on the tobacco monopoly. There were £58,761,423 of 3-per-cent. internal debt largely held abroad, making a total of £120,867,931, besides which internal loans at 4 and 4½ per cent. amounted to £6,158,204. The Government held £30,068,949 of various issues, which amount is excluded from the above statement. The floating debt amounted to 58,576,400 milreis. In 1892 the interest on the foreign debt was reduced 66½ per cent., and that on internal loans 30 per cent.

The Army and Navy.—The army is recruited partly by voluntary enlistment and partly by conscription. It consists of 24 regiments of infantry, 12 of rifles, 10 of cavalry, 3 of field artillery, 1 of mountain artillery, 2 regiments and 4 companies of fortress artillery, 1 regiment of engineers, and administrative and sanitary corps. The peace effective is 35,337 men, with 4,892 horses; the war effective 160,000 men, with 18,000 horses and 276 guns. The colonial forces, which are not included in the above statement, have a total strength of 9,478 men, mostly natives.

The Portuguese navy comprises the old iron-clad Vasco de Gama, the São Gabriel, and São Raphael, 2 cruisers built in France in 1898, and 4 older third-class cruisers; the protected cruiser Adamastor, of 1,933 tons, recently built in Italy; the Dom Carlos I, of 4,100 tons, just completed in England; the Rainha Amelia, 2 other protected cruisers of 1,800 tons, 2 gunboats, and 2 coast-defense vessels built or building in Portugal. The Dom Carlos I has an armored deck 4 inches thick, an armament of 4 6-inch, 8 4.7-inch, 12 3-pounder, and 6 smaller quick-firing guns. There are 16 seagoing and 10 river gunboats and 15 first-class and 30 other torpedo boats.

Commerce and Production.—Of the total area of Portugal 45.8 per cent. is waste land, a large proportion of which might be cultivated. Vineyards occupy 2.2 per cent. of the area of the country, orchards 7.2 per cent., 12.5 per cent. is under grain crops, 2.7 per cent. under other crops, 26.7 per cent. pasture and fallow, and 2.9 per cent. is covered with forests. In northern Portugal, where corn and cattle are produced, the land is divided into small farms, either owned by the cultivators or under their complete control, subject only to a fixed ground rent. In the central and southern parts the land is generally cultivated by tenants or farmed on shares. Rye is grown in the mountainous parts, where sheep and goats find pasturage, and in the lowlands wheat is the chief crop, while in the great oak forests of the south hogs fatten on the mast. Wine is made everywhere, and in increasing quantities. Olive oil is one of the important products. Figs, oranges, and bananas are the principal fruits. Tomatoes are grown extensively, and onions and potatoes are important vegetable crops. The ores of Portugal would be valuable if coal were plenti-

ful. The mineral products include copper precipitate, copper ore, sulphur, lead ore, anthracite, lignite, antimony ore, manganese ore, arsenic ore, gold, silver, wolfram, and tin, of the total value in 1897 of 1,439,499 milreis. The fishery products include sardines and tunny, which are preserved and exported.

The total value of imports in 1897 was 40,683,097 milreis, and of exports 29,515,296 milreis. The special imports of live animals amounted to 2,667,877 milreis, and domestic exports to 3,400,695 milreis; imports of food stuffs to 13,250,085 milreis, and exports to 15,196,794 milreis; imports of textiles to 4,924,222 milreis, and exports to 1,628,836 milreis; imports of machinery to 84,491 milreis, and exports to 77,439 milreis; imports of various manufactures to 2,874,646 milreis, and exports to 1,634,471 milreis; imports of raw materials to 14,757,938 milreis, and exports to 5,381,034 milreis; imports of coin and bullion to 357,160 milreis, and exports to 2,196,027 milreis. The importation of wheat for consumption was 5,367,620 milreis in value; of raw cotton, 2,840,179 milreis; of codfish, 2,307,745 milreis; of cotton goods and yarn, 2,104,194 milreis; of sugar, 1,906,727 milreis; of coal, 1,808,065 milreis; of iron, 1,351,470 milreis; of wool, 1,170,622 milreis; of leather and hides, 1,020,761 milreis; of woollen goods and yarn, 839,247 milreis; of cattle, 767,369 milreis; of coffee, 674,697 milreis; of leaf tobacco, 394,611 milreis. The wine exports amounted to 10,289,232 milreis, consisting of 2,417,360 litres of Madeira, 28,099,230 of port, 267,150 of liqueur wine, and 47,372,230 of ordinary wine. The export of cork was 3,567,898 milreis in value; of sardines, 1,319,029 milreis; of cotton goods, 1,254,982 milreis; of cattle, 903,858 milreis; of copper ore, 782,687 milreis; of horses, 447,207 milreis; of tunny, 297,344 milreis; of figs, 246,045 milreis; of eggs, 231,115 milreis; of bananas, 205,090 milreis; of onions, 201,872 milreis.

Navigation.—The number of vessels engaged in foreign commerce entered at the ports of Portugal during 1897 was 6,107, of 7,910,128 tons, of which 4,119, of 5,507,784 tons, were with cargoes; cleared, 6,139, of 7,896,639 tons, of which 4,827, of 6,282,110 tons, carried cargoes.

The merchant navy on Jan. 1, 1898, consisted of 286 vessels, of 77,835 tons, of which 47, of 35,583 tons, were steamers.

Railroads, Posts, and Telegraphs.—The length of railroads in 1897 was 1,464 miles, of which the Government owned 507 miles. The net receipts were 3,215,379 milreis, from 9,599,117 passengers and 1,935,742 tons of freight.

The post office forwarded 51,891,818 internal and 9,258,335 international letters, newspapers, circulars, etc., in 1897. The telegraph lines had a total length of 4,584 miles, with 9,475 miles of wire, on Jan. 1, 1898. The number of messages in 1897 was 1,272,042 in the internal and 1,065,309 in the international service.

Political Affairs.—In opening the Cortes on Jan. 2, 1899, the King said that it was not sufficient to preserve the colonial domain in its integrity as the sacred heritage of the nation; it must also be turned to account and developed as the solid basis of Portugal's economic regeneration. Bills were submitted to the Cortes for the reorganization and development of the colonies. These have cost Portugal 67,500,000 milreis since 1870. England, Germany, and Portugal made an agreement in the latter part of 1898 whereby England and Germany agreed mutually and promised Portugal to respect, and Portugal promised not to alienate, the Portuguese African possessions for a certain period. Assurances were

obtained also from other powers that the integrity of the Portuguese colonies would be respected.

Negotiations with the foreign creditors of Portugal were carried on in Paris, but no definite arrangement was made for the settlement of the debt. The Prime Minister assured the Cortes that under no circumstances would the Government sign a convention admitting foreign control over the finances of Portugal. The budget for 1900 showed a deficit of 1,545,000 milreis, but the Minister of Finance, relying on a slight increase of taxation and a more favorable state of the exchange, hoped to bring about a balance. The Minister of Foreign Affairs continued his negotiations with various governments for new commercial treaties based on the policy of protecting the industries and agriculture of the country. In the negotiations with Germany and England and with some other countries the principal object was to secure favorable terms for the introduction of Portuguese wines. With Spain an arrangement was sought that would facilitate trade in coffee and other produce from Portuguese colonies to take the place of the imports Spain had received until recently from the colonies she had lost. A commercial arrangement was made with the United States by which special tariff rates were conceded by the United States on brandies, vermouth, still wines, sparkling wines, argols, and paintings and statuary in return for a corresponding reduction on American articles imported into Portugal. The Cortes approved the project for laying the German cable from the Azores to North America and to Great Britain and Germany.

Colonies.—The Portuguese possessions in Africa are the Cape Verde Islands, with an area of 1,480 square miles and 114,130 population; Portuguese Guinea, with an estimated area of 4,440 square miles and 820,000 population; the islands of Principe and St. Thomas, with an area of 360 square miles and 24,660 population; Angola, with an area of 484,800 square miles and 4,119,000 population; and Portuguese East Africa, with an area of 301,000 square miles and 3,120,000 population; total estimated area, 792,040 square miles, with an estimated total population of 8,197,790.

The population of Cape Verde is of mixed Portuguese and negro extraction. The products of the islands are coffee, millet, and medicinal plants. The revenue for 1899 was estimated at 336,400 milreis, and expenditure at 292,739 milreis. The imports were 1,595,900 milreis in value in 1896; exports, 386,500 milreis.

Portuguese Guinea is a territory on the coast of Senegambia inclosed by French possessions. Caoutchouc, wax, oil seeds, ivory, and skins are exported to the amount of 221,000 milreis, while the imports are 283,000 milreis. The revenue for 1899 was estimated at 72,280 milreis; expenditure, 180,854 milreis.

Principe and St. Thomas are inhabited by creole settlers and a laboring population of negroes. The former island produces 600,000 kilogrammes of cacao a year, the latter 2,250,000 kilogrammes of coffee. The cinchona tree is cultivated on both islands. The revenue for 1899 was estimated at 356,373 milreis; expenditure, 292,971 milreis. The imports in 1896 were valued at 1,055,500 milreis and exports at 2,283,917 milreis.

Angola is divided into the districts of Congo, Loanda, Benguela, Mossamedes, and Lunda. Copper, iron, gold, petroleum, and salt are found, and mining rights have been granted to a German syndicate, with concessions for curing fish and

raising cattle. The staple products are coffee and caoutchouc, besides which wax, sugar, oils, cocoanuts, ivory, hides, and fish are exported. The revenue for 1899 was estimated at 1,651,797 milreis, and expenditure at 1,846,469 milreis. The imports in 1896 were valued at 3,451,456 milreis in 1896; exports, 4,612,800 milreis. The railroad into the interior has a length of 230 miles; length of telegraphs, 430 miles. The posts were visited by 286 vessels, of 431,774 tons, in 1896. (For Portuguese East Africa see CAPE COLONY AND SOUTH AFRICA.)

In Asia Portugal possesses Goa, on the Malabar coast; Damão and the island of Diu in Bombay; the city of Macao, on the island of that name, at the mouth of the Canton river; and the eastern part of the island of Timor, in the Malay Archipelago, with the small adjacent island of Pulo Cambing. Goa has an area of 1,390 square miles, with a population of 494,836; Damão and Diu have an area of 168 square miles, with 77,454 population; Macao has an area of 4 square miles, with 78,627 population; and Timor has an area of 7,458 square miles, with about 300,000 population, making the total area of the Asiatic colonies 9,020 square miles and the total population 940,917.

In Goa and Damão the manufacture of salt is the principal industry. The salt works of Goa produce 12,200 tons annually. The imports amounted in 1897 to 644,928 rupees; exports, 75,186 rupees; transit trade, 4,224,787 rupees. A military force of 1,630 men is maintained in Portuguese India, including 1,426 native soldiers. The revenue for 1899 was estimated at 924,394 milreis; expenditure, 1,070,584 milreis.

The trade of Macao is mainly transit. Formerly opium was smuggled into China, but now there is a Chinese customhouse in the city. Later a considerable trade sprung up in opium imported in the crude state and manufactured in Macao for export to California and Australia, and \$1,428,000 worth was exported in 1896, although this trade also has fallen away. Of the total population 74,568 are Chinese, and these have the commerce of the port in their control. The other inhabitants are 3,106 native Portuguese, 615 settlers from Portugal, 177 from other Portuguese possessions, and 161 of other nationalities. The revenue for 1899 was estimated at 433,575 milreis; expenditure, 388,929 milreis.

Timor produces coffee and wax. The revenue for 1899 was estimated at 146,726 milreis, including a contribution of 38,400 milreis from Macao; expenditure, 176,965 milreis. A delimitation of the boundary between Portuguese Timor and the Dutch part of the island has been agreed to, but not yet carried out.

PRESBYTERIANS. I. Presbyterian Church in the United States of America.—The summary of the statistics of this Church reported to the General Assembly in May gives the following footings: Number of synods, 32; of presbyteries, 232; of ministers, 7,312; of churches, 7,657; of communicants, 983,907; of members of Sabbath schools, 1,029,229; of candidates for the ministry, 1,115; of local evangelists, 137; of licentiates, 433; of elders, 28,252; of deacons, 9,847; of churches organized during the year, 108, against 65 dissolved; of members added on examination, 48,259; of baptisms, 17,682 of adults and 24,998 of infants. Amount of contributions: For home missions, \$1,005,311; for foreign missions, \$764,976; for education, \$143,130; for Sabbath-school work, \$121,177; for church erection, \$101,597; for the Relief fund, \$98,304; for the freedmen, \$137,567; for synodical aid, \$85,921; for aid for col-

leges, \$261,268; for the General Assembly, \$80,160; congregational contributions, \$10,094,518; miscellaneous, \$793,788; aggregate amount of contributions, according to the footing of the table, \$13,777,717.

These numbers show a net gain for the year of 8,030 members, a decrease of 4,935 in the membership of Sabbath schools, and an increase of \$74,156 in the aggregate of contributions.

The total income of the Board of Church Erection had been \$155,476, and the total disbursements \$129,600. One hundred and sixty-eight applications for aid had been made to the board, calling for \$114,516. Including special gifts, appropriations, either grants or loans, had been made to 180 churches (to 53, aggregating \$15,150, for manse) to the total amount of \$99,086.

The Board of Publication and Sabbath school Work returned net profits in the business department of \$19,175, two thirds of which (\$12,783) was contributed to the Sabbath-school missionary work. The aggregate of publications, including books, tracts, periodicals, and the annual report, had been 46,151,961 copies. The Sabbath-school and missionary department had 79 missionaries in the field, under whom 848 schools had been organized and 319 reorganized. The schools returned 4,149 teachers and 38,530 pupils. Contributions of \$89,879 had been received for this work from churches and Sabbath schools.

The receipts of the Board of Relief for Disabled Ministers and the Widows and Orphans of Deceased Ministers had been \$185,513, as against \$197,136 in the previous year. The permanent fund amounted to \$1,547,804. The number of beneficiaries aided during the year was 877. The average amount paid all annuitants was \$226.20; to ministers on the honorably retired roll, \$278.12.

The Board of Education had had 814 men under its care, a falling off of 97 from the year before; but the number of new candidates enrolled was slightly larger. Of the whole number of beneficiaries, 31 were attending the German theological schools, 97 the various schools for colored men, and 7 were in schools for Spanish-speaking students. The receipts for the year had been \$78,370. The board was free from debt.

The Board of Aid for Colleges and Academies had aided 27 institutions, the value of the property of which above indebtedness had been increased \$134,781. Its total receipts for 1898-'99 were \$181,996.

The total contributions to the Board of Home Missions had been \$856,906. The board had expended \$685,454 on field work, and had extinguished the debt of \$167,839 with which it had begun the year. In all, 2,112 ministers were employed in home mission work, 732 of whom were under the charge of the synods of eight States and independent of the board. In the support of these the synods had expended \$125,365. The board had under its charge 347 teachers in 121 schools, with 8,411 pupils; and 106 teachers with 7,441 pupils in Sabbath schools. The 1,450 aided churches returned 74,832 members, of whom 7,346 had been added during the year on confession of faith. Seven church organizations had reached self-support, 47 new churches and 231 Sabbath schools had been organized, 66 churches had been built at a cost of \$34,051, 233 churches repaired and enlarged at a cost of \$57,916, and \$76,080 of church debts canceled, during the year.

The report of the Board of Missions for Freedmen showed an expenditure of \$132,578 during the year, or \$862 more than in the previous year. The board had reduced its debt by \$18,000, making the present amount \$40,065. It had main-

tained 62 schools, instructing 8,109 pupils, and had aided 192 ministers in the field. An appeal was sent out after the presentation of the report to the General Assembly to all the Presbyterian churches to make an offering to this cause on Sunday, May 21, and report to the moderator the next morning, so that, "for the first time in twenty-five years, the Assembly may conclude its sessions free from the burden of debt." Without waiting for a response to this appeal to the churches, the whole amount of the debt was pledged at a meeting held in connection with the sessions of the Assembly.

The Board of Foreign Missions reported that the year with it had ended, as it had begun, without any deficit. The receipts had been \$863,743, as compared with \$881,511 in the previous year, when extraordinary contributions were made for the payment of the debt. The board had felt constrained to limit the appropriations for the fiscal year 1899-1900 to \$825,000, with the hope that enlarged contributions would enable it to add to the amount. This was \$200,000 less than the appropriations of six years before. The report of the auditor showed that the current and invested assets amounted to \$1,798,210, and the liabilities to \$1,320,212. The board had under its direction 240 ordained ministers, 395 women, 67 medical missionaries, 2,021 native workers, 368 churches, 35,995 communicant members, 30,235 pupils in Sabbath schools, 87 candidates for the ministry, 686 schools and colleges, with 21,516 pupils, 35 hospitals, and 47 dispensaries, at which 349,789 patients had been treated. The 1,192 mission stations were situated in Africa, China, Guatemala, India, Japan, Korea, Mexico, Persia, Siam, South America, Syria, and the Philippine Islands.

The one hundred and eleventh meeting of the General Assembly was held at Minneapolis, Minn., beginning May 18. The Rev. Dr. Robert F. Sample, of New York, was chosen moderator. The committee appointed by the previous General Assembly to consider measures for reducing the size of the Assembly recommended the submission to presbyteries of an overture making the number of ministers necessary to constitute a presbytery 10 instead of 5; and also two alternative overtures—one, that each presbytery having less than 18 ministers be entitled to one commissioner (a minister and an elder, alternately); each presbytery having more than 18 members and less than 36 to two (a minister and an elder); and each presbytery having 36 ministers or more to two commissioners, one minister and one elder, for every 36 ministers. The second of these alternative overtures provided that the ratio of representation should be one minister and one elder for every 6,000 communicants and under in each of the synods, and one minister and one elder for every additional 6,000 members. Under the former plan the Assembly would consist of 422 members; under the second plan it would comprise 300 members. The recommendations of the report were not approved, and the subject was indefinitely postponed. Regarding union with the Southern Presbyterian Church, the Assembly resolved: "While reiterating our confidence in the Christian character and orthodoxy of our Southern brethren, and our fraternal feelings and desire for closer fellowship and more effective union, we do not deem it wise to take any further action in the matter proposed." Telegraphic greetings were, however, sent to the Southern General Assembly and responded to by it, and a written address was sent by the elders in the Assembly to the elders in that body, ex-

pressing more fully the sentiments of the laymen on subjects of common interest. The resolutions adopted on temperance urged the ministers and people "to a careful study of existing laws against the saloon in their own communities, and of those methods of suppressing and controlling the liquor traffic which are proved efficient in any part of the land"; and "so far as conscience and wisdom dictate," to approve and aid all measures which oppose the saloon and aim at its destruction. They further appealed to the President of the United States to carry the antican-teen law into full force and effect by issuing an order as commander in chief of the army for the total suppression of army saloons, at least until the Attorney-General's opinion has been finally tested in the courts; and invited the attention of Congress to the effect of the ruling of the Attorney-General in establishing the canteen as still a part of the military establishment. An overture having been presented from the Presbytery of Baltimore on the subject of church attendance of Presbyterian students at the Naval Academy, Annapolis, a correspondence was produced, from which it appeared that the Secretary of the Navy had explained that while students as a rule were expected to attend religious services at the chapel, where the preacher was a Methodist minister, they were allowed, upon making a request to that effect in writing, and with the written approval of their parents, to attend the church of their choice in Annapolis. The Assembly, while accepting the statements of the Secretary as an assurance that religious liberty prevailed among the cadets under the present rules of the Academy, urged upon the authorities of the Academy that no restriction, whether formal or otherwise, be laid upon the right of cadets to attend the Presbyterian Church at Annapolis under the prevailing rules; and upon those parents who wish their boys to be under distinctively Presbyterian training "not to fail to assert their parental influence with their sons and their undoubted rights with the authorities to this end." A protest was passed against the seating of Brigham H. Roberts, "an avowed polygamist," as a member of the national House of Representatives from Utah. The resolutions on the Sabbath deprecated the secularizing of the day; urged members and young people of the Church to realize the importance of Sabbath observance, and legislatures and Congress to protect the American Sabbath; commended various societies for the promotion of Sabbath observance; recommended every pastor to preach a sermon on Sabbath observance; advised the preparation by the Board of Publication and the use by Sabbath-school superintendents of a leaflet on the subject; and expressed sympathy with 3,000,000 persons "who, because of Sabbath desecration, are compelled to do secular work on the Sabbath." The Assembly, while expressing the utmost confidence in its trustees and its stated clerk, directed that, "in accordance with the most approved business methods, their accounts, cash, and securities be annually examined and approved by a public auditor, whose certificate should be appended thereto before submitting the said accounts to the standing Committee on Finance of the next and subsequent General Assemblies."

The Rev. Dr. A. C. McGiffert, professor in Union Theological Seminary, in response to the request of the preceding Assembly (see Annual Cyclopædia for 1898, page 651) that he reconsider the "questionable views" in his book, *A History of Christianity in the Apostolic Age*, "and if he can not conform his views to the

standards of our Church, then peaceably to withdraw from the Presbyterian ministry," sent in a letter declining to take either course. "The action of the Assembly," he wrote, "as well as the overture from the Presbytery of Pittsburg, upon which that action was based, make it evident that many of my positions, together with the spirit and purpose of my book as a whole, have been seriously misapprehended. Such misapprehension I sincerely regret, and I wish here emphatically to repudiate the false constructions that have been placed upon my book in many quarters. So far as my views are concerned, they have been and remain, as I believe, in accord with the faith of the Presbyterian Church and of Evangelical Christendom in all vital and essential matters, and I therefore can not feel that it is my duty, or even my right, in justice to myself and to my brethren, and to the Church of our Divine Lord and Master, in which I am an office bearer, to withdraw from the Presbyterian Church. In taking this position, to which I am constrained by a profound sense of duty, I desire to say that I recognize gratefully the spirit of Christian kindness which animated those who joined in the action of the last General Assembly, and appreciate the devotion to the truth and the concern for the welfare of the Church which prompted their action. I desire to say, also, that I yield to no one in my devotion to the truth and in my concern for the welfare of the Church." The Committee on Bills and Overtures, in whose hands the case lay, brought in a unanimous report, a majority report, and a minority report. The unanimous report, while taking notice of the repudiation by Dr. McGiffert of the interpretation placed upon his utterances in the book as being not in accord with the standards of the Church, and of his assertion of devotion to the truth and concern for the welfare of the Church, and accepting the same as sincere, nevertheless reasserted the deliverance of the General Assembly of 1898 condemning the statements of the book as being such as to justify the interpretation he repudiated; then laid down the fundamental doctrines of the Church on the points involved. This report was adopted by the Assembly. The majority report further recommended that the matter of the teachings of Dr. McGiffert's book "be referred to the Presbytery of New York, to which belongs the primary constitutional responsibility, for such disposition as in its judgment the peace of the Church and purity of doctrine may require." The minority report embodied a direction to the Presbytery of New York as to the course it should pursue in the matter. The majority report, leaving the Presbytery of New York free to exercise its judgment, was adopted, and the vote adopting it was made unanimous.

An appeal was made by Hermann Warszawiak against the decision of the Synod of New York in effect confirming his expulsion from the Fifth Avenue Presbyterian Church on a charge of gambling. The report of the Judicial Commission to whom the case was referred, which was confirmed by the Assembly, recommended that the judgment of the synod be reversed only in so far as the synod instructed the Presbytery of New York to remand the case to the session of the Church—on the ground that the synod had no constitutional right to direct a retrial on charges not involved in the original indictment. Otherwise, it was recommended and determined that the judgment of the synod stand in the case of the appeal and complaints, and the records be remanded

to the synod "for the purpose of the case being proceeded with according to the methods and requirements of the constitution." The appeal and complaints against the Presbytery of New York were dismissed and the judgment of the presbytery complained of and appealed from was sustained.

II. Presbyterian Church in the United States (Southern).—The following is a summary of the statistics of this Church as presented in the reports to the General Assembly in May: Number of synods, 13; of presbyteries, 77; of ministers, 1,471; of churches, 2,919; of members, 221,022; of teachers in Sabbath schools, 19,808; of pupils in the same, 143,609; of candidates for the ministry, 357; of licentiates, 60; of ruling elders, 8,979; of deacons, 7,571; of baptized noncommunicants, 41,627; of churches organized during the year, 56, against 14 dissolved; of members added on examination, 8,613; of adults baptized, 2,847; of infants baptized, 4,588. Amount of contributions: For home missions (Assembly's), \$30,005; for local evangelistic funds, \$116,533; for the Invalid fund, \$13,732; for foreign missions, \$111,191; for education, \$52,732; for publications, \$12,587; for colored evangelization, \$12,459; for the Bible cause, \$4,025; for presbyterial purposes, \$15,948; for pastors' salaries, \$802,607; for congregational purposes, \$583,570; miscellaneous contributions, \$96,276. The whole amount of contributions, according to the footing of the tables, is \$1,851,771. The increase in the number of communicants during the year was 3,947; increase in the aggregate of contributions, \$4,917; while the number of pupils in Sabbath schools was 2,268 less than in 1898. A comparison of the tables with those of past years shows that the net growth of the Church in the number of communicants for the past four years had been 2 per cent., or only half as large a percentage as in the years preceding.

The report of the Executive Committee on Education showed that the collections for that cause had amounted to \$16,809, and that assistance had been given to 215 candidates for the ministry.

The Executive Committee on Home Missions showed in its thirty-third annual report that it had received during the year for all purposes \$50,355, and had expended \$47,598. In the home mission department the committee had assisted in the support of 124 ministers and teachers in Florida, Arkansas, Texas, and the Indian Territory, and aided in the erection of four churches. In church erection, during the past thirteen years \$7,305 had been loaned to 54 churches for whites, of which \$4,365 had been repaid or canceled, and \$255 had been loaned to colored congregations, of which \$128 had been returned. An encouraging increase had taken place during the past five years in contributions from \$23,685 to \$31,906. The total receipts to the Invalid fund during the year had been \$14,573, an increase over the previous year of \$3,764, and the payments to beneficiaries had increased from 65 cents to 90 cents on the dollar of the amounts asked by presbyteries.

The Committee on Colored Evangelization reported to the General Assembly that it had begun the year with considerable indebtedness on the general fund. It had received \$6,621 on this account, had paid all debts, had maintained the work in all its departments, and closed the year with \$2,000 to its credit. Twenty-two students had attended Stillman Institute, 12 in the theological and 10 in the academic departments.

The Executive Committee on Foreign Missions

reported that its net receipts had been \$144,990, or \$1,053 less than in the previous year, and its expenditures had been \$145,343. The year had closed without debt, and with a balance of \$54 in the treasury. Four missionaries had been sent out during the year, one of whom went at his own charge, while the salary of another was paid by contributions from the field to which he was sent. The committee had 6 men and 8 women under appointment, and the applications of 8 candidates were under consideration. Reports were given from missions in China, Japan, Korea, West Africa, Brazil, and Mexico. Contributions had been made by the Young People's Societies for the support of a mission in Cuba. Four hundred and eighty-four members had been added during the year in the mission fields on profession of faith. A fund of \$10,393 had been secured for putting and maintaining a steamboat on the Congo river.

The Committee on Systematic Benevolence had received reports from 72 presbyteries, leaving only 5 which made no report. The reports were in the main full and satisfactory.

The General Assembly met at Richmond, Va., May 18. The Rev. Dr. J. F. Cannon was chosen moderator. The committee appointed to confer with the Associate Reformed Presbyterian Church on the subject of union reported that one of their number had visited the synod of that Church and presented the subject to it. The synod responded, expressing the highest respect for this Church and its desire for union with it, "provided our historical testimony in favor of an exclusive use of an inspired psalmody for the united Church might be maintained." But as this testimony appeared to be a barrier to organic union, the synod regarded it as unwise to prosecute negotiations to that end. The report of the Committee on Colored Evangelization presented the cause under its charge as including the entrance into a mission field, the erection of churches and mansees, the establishment and maintenance of schools, the support of evangelists and pastors, the selection and training of ministers, and everything connected with the elevation of a race. The establishment of Sunday schools among colored people taught by white teachers was advancing, with an increase in the number of such schools from 13 to 23. The colored ministers and evangelists had been paid \$2,427 by the committee, the sum covering all indebtedness. The students at Stillman Institute were now required to earn their board by laboring on the farm, and to bear all their other expenses themselves. The colored churches were being organized into an independent synod, which had held its first meeting at Chester, S. C., Jan. 19. The committee had decided to bring all the colored ministers together in a "summer school" at Tuscaloosa, where they would be diligently instructed in all the various departments of Church work. Plans had been matured for a considerable enlargement of the school work of Stillman Institute. Among them was an arrangement for keeping the doors of the institute open continuously, with some school in session all the time. The report on the Sabbath, while it cited numerous instances illustrating the growing disregard of the Lord's Day by world's people, presented as a gratifying incident in connection with the matter "the frequent commendatory notices of the conduct of church members." The distinction, the report said, "is everywhere drawn between the Church and the world. The statement is constantly reiterated that while the day is losing its hold upon the outside world, the people of God, with few exceptions, regard it

more or less with unabated reverence and affection." A report of a Committee on Church and Christian Education appointed by the previous General Assembly expressed satisfaction at signs of a reawakening in this Church and in all the evangelical churches to the great importance of Christian education, and at the increasing number of schools of various grades under direct church control; advised all the synods, presbyteries, and church sessions to undertake whatever might be practicable in furtherance of this cause; and embodied a constitution for parochial schools, to be maintained by single congregations or by two or more contiguous congregations, and to be governed by boards of trustees, all male communicants in the Presbyterian Church, appointed by the Church sessions; the schools to be primary and preparatory in grade, for young men or young women or both, and to be distinctively Christian in character, with the Bible as a text-book and the standard of the Church in use. The report also included a plan of organization contemplating the appointment of permanent committees on church and Christian education by the Assembly, the synods, and the presbyteries, the duty of which should be to gather and disseminate information and stimulate interest in the subject. This report was adopted. The Assembly decided that in case of the failure of the regular meeting or of an emergency, the moderator may convene a presbytery without the concurrence in request of two ministers and two elders. To an overture of inquiry on the subject, the Assembly responded that there is no warrant in the Scriptures for the observance of Christmas and Easter as holy days, "but on the contrary (see Galatians iv, 9-11, and Colossians ii, 16-21) that such observance is contrary to the principles of the Reformed Church, conducive to will worship, and not in harmony with the simplicity of the Gospel of Christ." A change in the baptismal formula whereby the clause "I baptize thee into the name," etc., is changed into "I baptize thee in the name," etc., submitted by the preceding General Assembly, having been approved by the presbyteries, was enacted into an amendment to the directory of worship. A minute was adopted expressing the strongest condemnation of the lawless spirit manifested in lynching, and, while expressing also the abhorrence of the Assembly for the crimes which have led to the disorders alluded to, urging all the Presbyterian people and ministers "in all scriptural ways to do their utmost toward cultivating and maintaining that order and reverence for authority which are enjoined by the Word of God." A committee of three ministers and two ruling elders was appointed to attend the unveiling of the Presbyterian historical monument erected in the Old Scots burial ground in Monmouth County, New Jersey, where the first general presbytery of which any official record exists assembled. A committee was appointed to prepare a pastoral letter, to be read in all the churches, on the subject of card playing, dancing, theater going, and other worldly amusements.

A committee reported concerning the propriety of ministers performing the marriage ceremony in case the parties are under age when there is reason to suppose that the consent of the parents has not been obtained, that it would be unwise and inexpedient to attempt to lay down any inflexible rule for the guidance of the ministry in the performance of the marriage ceremony, the great bond of society. The enlightened conscience and the laws of the land are as a rule the safest and only guides to be followed in such

cases. But in instances like those described the greatest prudence and caution should be exercised by the minister. He should assert his influence as far as he could properly and prudently do so to prevent such marriages, and only consent to perform the ceremony in those cases where he is satisfied from all the circumstances that the best interest of all the parties (including the parent or parents) will be subserved by his so doing.

III. United Presbyterian Church in North America.—The following is a summary of the statistics of this Church reported to the General Assembly in May, 1899: Number of synods, 12; of presbyteries, 66; of ministers, 957, of whom 674 are returned as pastors and stated supplies and 283 as without charge; of licentiates, 101; of licensures, 56; of students of theology, 75; of ministers ordained during the year, 48; of ruling elders, 3,880; of congregations, 968, of which 775 had pastors and stated supplies and 193 were vacant; of mission stations, 507; of houses of worship erected during the year, 32, at a total cost of \$264,326; of parsonages, 328, of which 19 were erected during the year, at a total cost of \$30,347; of members in America, 114,635; in the whole Church, 126,783; of members received on profession during the year, total, 6,834; of baptisms, 2,755 of infants and 1,384 of adults; of Sabbath schools, 1,126, with 12,584 officers and teachers and 113,502 pupils; of Young People's Societies, 1,029, with 41,280 members. Amount of contributions (in America): For salaries of ministers, \$596,228; for congregational purposes, \$508,637; for the boards, \$283,520; for general purposes, \$133,291; total for America, \$1,521,679; total for the Church, \$1,542,700; average per member in America, \$13.39; average salary of pastors in America, \$1,029. Of the 507 mission stations, 484 are preaching stations in the foreign field (Egypt and India). The amount of contributions of Sabbath schools was returned as \$90,120.

The Board of Education reported to the General Assembly that more than ordinary interest had been taken during the year toward increasing endowment funds and in securing buildings. The contributions to the college and seminary fund amounted to \$0,200, or \$3,381 more than in the preceding year. This sum was distributed among 11 institutions.

The Young People's Christian Union Convention was held in Pittsburg, Pa., Aug. 2 to 7, and was attended by 7,039 delegates. Reports were made of 598 Christian Union and 163 Christian Endeavor Societies, with 31,077 members and 5,096 tithers; and of 295 Junior Societies and 123 Junior Missionary Societies, with 15,523 members, 1,771 of whom came from homes outside of the Church. The senior societies had contributed \$36,540, and the Juniors \$8,704. The sum of \$25,000 had been contributed toward a proposed thank offering of \$50,000.

Of \$8,000 appropriated by the General Assembly of 1898 for ministerial relief, the board had received \$5,803. The payments to beneficiaries had amounted to \$10,390. The usefulness, and in fact the necessity of the endowment fund was made more and more apparent. Twenty-three ministers and 47 widows and orphans had been aided during the year. There were now 69 beneficiaries on the roll. The amount of the endowment fund was \$105,325.

The Board of Home Missions reported to the General Assembly that the net increase of membership in the missions had been greater than in the Church at large. For the first time the con-

tributions of the mission stations and congregations to all the work of the Church had exceeded the whole amount expended by the board. One hundred and fifty-five congregations had been added since 1880.

The total receipts of the Board of Foreign Missions for the year had been \$174,458 and the expenditures \$174,269. The debt had been reduced from \$23,238 to \$16,438.

The contributions for the year to the foreign work of the Woman's General Missionary Society had been \$16,674, or \$119 less than in the previous year. Thirty-six foreign missionaries were sustained by the society—24 in India and 12 in Egypt. Reports were made at the annual meeting in May concerning the Bible Training School, at Xenia, Ohio; the distribution of literature; work among the freedmen, in connection with which a farm in Alabama had returned a profit of \$600; a Little Girls' Home, at Knoxville, Tenn.; the magazine; church extension and parsonage work; the Warm Springs Indian Mission; the Orphans' Home; and the Hospital for the Aged. A new hospital was to be established at Tanta, Egypt.

The forty-first General Assembly met in Philadelphia, Pa., May 24. The Rev. W. J. Robinson, D. D., of Allegheny, was chosen moderator. The Committee on Union with the Associate Reformed Synod of the South reported that no progress was being made, except as the two bodies were growing nearer together through the Young People's Societies and co-operation in missions. The Committee on Union with the Christian Reformed Church reported that the basis of union submitted in overture had been defeated, but the Synod desired correspondence by fraternal delegates. The fraternal delegate of that Church was present, and said, in his address to the Assembly, that a growing regard prevailed among its people for the United Presbyterian Church, and an increasing desire for more intimate relations. There was also a desire for closer relations with churches of like faith, and a movement had been set on foot with reference to this. The Committee on Ways and Means and the Commission on the Debts of the Boards had worked together during the year as one committee, with the result of securing larger contributions to the boards. The committee appointed by the previous General Assembly on a comprehensive educational policy presented a plan contemplating control by the General Assembly of the establishment and location of educational institutions. The paper was discussed and referred to the Committee on Education. The Assembly advised that new educational enterprises should be undertaken by presbyteries or synods contingent upon approval by the General Assembly, to obtain which their case should be brought by the Board of Education before it for its action. To a memorial asking for action on the subject of marriage with a deceased wife's sister, the Assembly replied, after citing the refusal of the General Assembly of 1869, by a majority of four to one, to repeal the prohibition, that matters more practical and essential to the welfare of the Church were clamoring for discussion and legislation, and it would be wise to avoid the agitation of that vexed question at this time. The Board of Publication was instructed not to accept for publication in any of the Church periodicals any musical composition which alters the authorized wording of the Psalms in the construction of anthems, choruses, etc., but to require strict adherence to the forms of expression found in the metrical or the prose versions in all the books of

selections they publish; and that all adaptation of music for conventions and congregations be published by the board. The organization of a presbytery in eastern Virginia and North Carolina, to be under the jurisdiction of the Synod of New York, was directed. The Assembly advised the institution of a Sabbath observance department in the work of the Young People's Christian Union, and entreated ministers and members to give more earnest heed to their department on the Lord's Day in every particular. Provision was made for introducing the total abstinence pledge into all the Sabbath schools and securing the signatures of pupils to it. Concerning the jurisdiction of sessions over students of theology, the Assembly decided that the standing of a student in the congregation remains until he is ordained, when he passes from the jurisdiction of the session; and made it the duty of the clerk of the presbytery to notify the session of the fact of the ordination. Resolutions were passed condemning the construction put by the War Department upon the "anticanteen law," and opposing the seating of B. H. Roberts as a member of the national House of Representatives from Utah. Delegates were appointed to attend the convention of the American Antisaloon League to be held at Chicago.

IV. Associate Reformed Synod of the South.—The total number of members connected with this body was given in at the annual meeting of the Synod in November as about 11,500. This represented an increase, mainly accruing to the home mission congregations. The Synod met in Charlotte, N. C., Nov. 9. The business that elicited the most interest in the Synod was the election of a president for Erskine College, to succeed the Rev. Dr. Grier. The Rev. Dr. Chalmers was chosen, but declined to accept. The Rev. Dr. F. Y. Pressly was then elected. Negotiations for union with the United Presbyterian Church, which had been going on for several years, had been suspended.

V. Reformed Presbyterian Church in North America—Synod.—Statistics of which a summary follows were reported of this body at the annual meeting of the Synod in May: Number of congregations, 113; of missionary stations, 11; of ministers, 124; of licentiates, 21; of theological students not licentiates, 3; of communicants, 9,875; of attendants on Sabbath school, 10,387; of attendants on meetings of Young People's Societies, 2,436; net increase of members during the year, 22; total amount of contributions, \$164,485.

The Synod met at Mansfield, Ohio, May 31. The Rev. James Black, of Wyman, Iowa, was chosen moderator. The subject of most interest before the Synod related to the formation of a denominational union of the Young People's Societies. The question had been much canvassed in the Church, but the Synod declined to take favorable action upon it. At the meeting of the Synod two years before, the Rev. Dr. McAllister had been called to account for heresy in articles on Church union published in his paper, the Christian Statesman. The matter was then disposed of by requesting Dr. McAllister to cease the further publication of articles on Church union, while the Synod expressed neither approval nor disapproval of the views expressed in them. In 1898 the Synod had denied a request by Dr. McAllister for a removal of the restriction. The matter was now brought up again, when the Synod resolved that it perceived no reason for continuing the restriction in force. The Synod reiterated its condemnation of all Sabbath-break-

ing travel, and specially protested against the efforts of street-car and railway lines to increase such travel by providing special attractions on the Lord's Day at suburban and other resorts; and it urged all under its care "to guard most scrupulously against complicity in any way with such violations of the Lord's Day." In view of seeming difficulties in the way of the present attainment of its object, the committee on the preparation of a uniform version of the Psalms for use by all Psalm-singing churches was discontinued. The question having been brought up in the form of a proposition to change the practice and require rebaptism, the Synod decided by a very large majority that the practice pursued in the mission in Syria of receiving converts from the Greek Church without rebaptism should be continued.

VI. Cumberland Presbyterian Church.—The statistical returns of this Church, compiled in December, 1899, give it 1,720 ministers, 2,982 churches, and 186,582 members; showing a gain during the year of 121 ministers and 5,947 members, and a loss of 39 churches.

The Cumberland Presbyterian Church, colored, had 450 ministers, 400 churches, and 39,000 members; showing gains of 50 ministers and 150 churches. The gain of 28,750 members set down in the table is claimed to represent the gain of several years, but of how many is not indicated.

The receipts of the Educational Society for the year had been about \$12,000, of which \$10,282 had come in the form of offerings of the Church. The sum of \$5,920 had been paid to students. The society reported that the endowment of the Theological Seminary had been so increased that the committee would hereafter be relieved of the necessity of helping sustain the faculty of the institution. The policy avowed by a previous General Assembly expressed in the words "education before ordination" had been found by the society from the inquiries it had been commissioned to make to be approved by the Church, and appeared to be regarded as an established principle. Obeying the orders of the General Assembly, and disclaiming any purpose to determine who should be ordained, the society had simply gained information as to the processes employed by the presbytery in the case of each ordination, and submitted it to the Assembly without comment. Where the report had not seemed satisfactory, the Synod was requested to investigate and see that the law was duly observed. A school for colored Cumberland Presbyterians had been founded at Huntsville, Ala., and was flourishing. The society had been assisted by a Ladies' Society in Nashville, Tenn.

The Education Commission appointed by the General Assembly to manage the effort to raise \$1,000,000 for endowments met at St. Louis and organized, May 3. Besides the raising of the money the constitution adopted at the meeting specified as the object of the commission the encouragement and promotion of the co-ordination and correlation of the educational institutions of the Church so as to insure their greatest harmony and efficiency and to prevent the unnecessary waste of men and money. The preparation of an address to the synods and presbyteries was determined upon. Measures were proposed by which active pastors may engage in the canvass for funds.

The Board of Publication reported that the business transactions of the Publishing House for the year had amounted to \$84,414, on which a net profit was realized of \$8,955. The book department, which had for several years been conducted

at a loss, returned this year a net profit of \$1,784.

The receipts of the Board of Ministerial Relief for the year had been \$10,069. The board had spent \$3,058 for the relief of ministers, \$2,103 for the relief of widows and orphans, and \$2,566 in the support of Thornton Home for Ministers. Ninety-nine families had been aided by the board. The receipts for Church extension had been \$2,447. Two home mission churches had become self-supporting; and the appropriations to home mission points were being gradually decreased, with a view of bringing them to self-support. From the foreign field reports were made of work in Mexico, Japan, and China. Nine Church Extension superintendents were employed, two Indian missionaries, one missionary to the Chinese in San Francisco, 3 missionaries to the mountain people, missionaries on 21 home mission stations, 5 missionaries in Mexico, 3 in China, and 14 in Japan.

The total receipts of the Woman's Board of Missions for the year were \$29,079, making it the best financially of all the years. Reports were made at the convention, May 8, of the work of the manse department, which the board had undertaken under the direction of the General Assembly, but which had not yet become considerable; of Chinese work in San Francisco, which was partly sustained by the children and returned 91 pupils; of the mountain mission at Barnard, N. C., which had become so large that the erection of a new building, toward which more than \$2,500 had been subscribed, had become necessary; and of foreign mission work, in Mexico and Japan. The Colegio Morales in Mexico had 65 pupils, and the Nilmina school in Japan 28 pupils.

The sixty-ninth General Assembly met at Denver, Col., May 18. The Rev. James McGready Halsell, D. D., was chosen moderator. The predominant subject for consideration was that of education, on which a special report was presented. This report, expressly recognizing the importance of education, gave the schools of the Church full credit for the work they had done, which was good according to their resources; exposed the inadequacy of those resources to the accomplishment of what the colleges were called upon to perform, and urged the necessity of increasing their endowments. It had been shown by the Educational Society that the Church had no policy embracing the entire denomination, and to remedy this defect the following measures proposed by the committee were approved by the General Assembly as outlining such a policy: That the synods and presbyteries be instructed to favor the promotion of preparatory schools, colleges, a central university, theological seminary, and post-graduate seminary; that they discourage the effort of academies to do college work and urge them to affiliate themselves with the colleges as preparatory schools; that all concerned, including pastors and sessions, co-operate in the effort suggested by the Education Society to raise an educational endowment fund of \$1,000,000; that the fund so raised be apportioned according to a schedule embodied in the report among the colleges and seminaries of the Church, including \$100,000 for a college to be established on the Pacific coast and \$50,000 for the preparation for post-graduate theological seminary work in the University of Chicago; and the constitution of a commission to be located at St. Louis, Mo., to have the charge of the raising of this fund. The report of the Committee on Systematic Benevolence showed that the number

of persons practicing the contribution of tithes was growing every year. The resolutions adopted by the Assembly commended the cause of systematic benevolence; requested the presbyteries to provide a fund upon the basis of one cent per member to promote that work; disapproved of fairs, festivals, and entertainments of any kind where money is taken at the door, and deprecated the attendance by members at such entertainments when given by other denominations; and authorized the appointment of a commissioner to preach a sermon at the next General Assembly on systematic beneficence. In answer to an inquiry whether a licentiate might perform the marriage ceremony, the Assembly decided that he could not unless the law of the State in which the marriage took place expressly gave him the power. The Assembly having in its resolutions on temperance expressed the belief that it is the duty of Christian men "to separate themselves from every organization that sympathizes or compromises with the rum traffic, and unite in some way with some organization every member of which shall at all times, including Election Days, and at all places, including the polls, and with all their power, including the ballot, stand together against this giant evil," a protest was entered against this declaration, maintaining that the Assembly should not commit itself to any kind of civil or political action as in the report it seemed to do. The Assembly thereupon explained that the resolutions did not commit the body to allegiance to any political party. The report on Christian Endeavor recommended the appointment in each synod of a representative to look after the work of the Christian Endeavor Societies in that synod; that there be a permanent Christian Endeavor committee in every presbytery, reporting to the Synodical Executive Committee; that the Christian Endeavor Committee of the General Assembly be made permanent; that the month of May be allotted to the Endeavorers for the taking of offerings; and that the offerings of the Junior Societies be administered by the Woman's Board of Missions.

VII. Presbyterian Church in Canada.—The statistical reports of this Church for 1899 give it 212,026 members, 1,000 (in round numbers) ordained ministers, and 160,105 Sunday-school scholars. The year's contributions to home missions were \$106,169; those to foreign missions were \$175,223; and the total revenue of the Church was \$2,511,175, the largest amount contributed to the Church in any year since the union in 1875. Of this amount, \$473,936 were given for the "schemes" of the Church. The average of contributions was \$20.99 per family, \$10.81 per communicant.

The report on Sabbath-school publications showed that the department had been self-sustaining and had yielded a small surplus.

The financial reports to the General Assembly showed that the amounts raised had been larger than in any previous year. All the funds of the Church were out of debt, and began the new year with a balance in hand. The total expense of administering the funds was calculated to be 3.40 per cent.

The reports of the Home Mission Committees to the General Assembly showed that the revenue of the funds of the eastern and western sections together had been \$140,154. Four hundred and forty-two fields, with 1,204 stations, had been supplied by 559 missionaries.

The expenditures in the fields for French evangelization had been \$25,719, while \$7,289 had been contributed from them. Work had been

carried on in 36 fields, with 95 preaching stations and 13 colportage districts, by 29 ordained missionaries, 17 colporteurs and students, and 18 missionary teachers. Seven hundred and forty-four pupils were enrolled in the mission schools. The Point aux Trembles College, with 170 students, had been maintained at an expense of \$10,595.

The contributions for foreign missions had been in the two sections, eastern and western combined, \$175,222. The missions were situated in the New Hebrides, Trinidad, and Demerara, Formosa, India, China, and Korea. The question having been raised in the General Assembly, that body decided almost unanimously to continue and strengthen the college work of the India mission.

The twenty-fifth General Assembly met at Hamilton, Ontario, June 20. The Rev. Robert Campbell, D.D., was chosen moderator. A scheme was adopted for raising a "twentieth century fund" of \$1,000,000. This sum, it was provided, shall consist of two parts: one of \$600,000, to be known as the Common fund, for the missionary, educational, and benevolent work of the Church; and the other, of \$400,000, for the discharging of debts on church property. No endowments were asked for the ordinary missionary expenditure of the Church, but in order to obviate borrowing from banks, working balances were aimed at; for home missions, east, \$8,000; for home missions, west (to make up \$50,000), \$30,000; for augmentation, east (to make up \$6,500), \$3,000; for augmentation, west, \$15,000; for foreign missions, east, \$15,000; for foreign missions, west (to make up \$50,000), \$20,000; for French evangelization, \$15,000. Other objects to be embraced in the Common fund were \$40,000 each to the colleges at Montreal, Kingston, Toronto, and Winnipeg, and \$15,000 to the Presbyterian College, Halifax; \$50,000 to the Church and Manse Building fund, northwest; \$10,000 to the building fund for Algoma and North Bay; \$24,000 to the church building fund of New Brunswick, Prince Edward Island, and Newfoundland; \$60,000 to the Aged and Infirm Ministers' fund, west, and \$12,000 to that, east; \$60,000 to the Widows' and Orphans' fund, west; \$50,000 for a building fund for foreign missions, west; \$10,000 for a building fund for foreign missions, east; \$25,000 for a building fund for augmentation, west; and \$20,000 for a building fund for French evangelization. These allotments constitute the distribution of the Common fund of \$600,000. While members and adherents were expected to contribute to the common fund as a whole, yet any desiring to designate their contribution to a particular object embraced in the same were left at liberty to do so. It was stipulated that nothing should be paid out of the Common fund except for objects embraced in the schedule, of which a summary is given above; but congregations and individual contributions were encouraged to reduce or liquidate debts on churches, manses, or other church property, with the understanding that the amounts thus paid, if reported, should be included in the Century fund. Such congregations and individuals were expected to designate a certain portion of their contributions to the Common fund, the proportion to be designated by themselves. The Century fund being regarded as special and extraordinary, it was intended to be understood that contributions made in connection with it ought not to interfere with givings to congregational objects or to the schemes of the Church. The fund is open till May 1, 1901. The Rev. Dr. Robert Campbell, moderator of the Gen-

eral Assembly, was appointed general agent for the Century fund for a term of two years, with the duties of securing thorough organization in synods, presbyteries, and congregations in connection with it, and of presenting the scheme wherever possible. Six synodical conveners were appointed, to co-operate through their advisory committees with the general agent. A special committee was appointed to inquire into the subject of the eligibility of ruling elders to be moderators of church courts and prepare a finding for submission to the next General Assembly. The Committee on Education was directed, in co-operation with other committees, to continue to urge upon the governments of the provinces the importance of ethical and nonsectarian religious instruction. A proposal that nominations for moderator of the General Assembly should be hereafter made by a committee composed of all the ex-moderators, with the reservation of the right of nomination on the floor of the Assembly, was sent down to the presbyteries for consideration. Permission was given for keeping the official records of the Church in the form of duly certified printed copies. Progress was reported in the preparation of a revision of the Westminster Directory of Worship, and upon a manual of Aids for Social Worship. Some apprehension was expressed in the discussion of these reports of an introduction of ritualism, but they were not shared by the majority of the Assembly. A proposal to reduce the representation of ministers and elders in the Assembly, sent down to the presbyteries in 1898 and approved by 31 out of 53 of them, was tabled for fuller consideration by the next General Assembly. An overture calling for the appointment of an executive to act for the General Assembly during the intervals between its meetings was referred to a committee to consider and report to the next General Assembly. A resolution was adopted expressing thankfulness for the increased temperance sentiment in the country, and demanding, in view of a majority of votes having been cast in the recent plebiscite for prohibition, that legislation be enacted in conformity with that principle. The report on church life and work urged the cultivation of the family religious life, and of a strong spiritual tone in the congregation, and emphasized the importance of preserving the Sabbath.

VII. Church of Scotland.—The statistics reported to the General Assembly of this Church in May showed that the number of members at the end of 1898 was 648,476, as against 641,803 at the close of the previous year. The membership of the Church had increased during the past twenty years by 132,690. The number of baptisms during the past year had been 40,059. The income of the funds under the charge of the Assembly had been £190,272. An increase over the previous year was shown in the amounts received for the different schemes and funds, except in the case of the Aged and Infirm Ministers' fund, where a falling off in legacies had occasioned a decrease of £368, and the income of the Endowment Committee, which had decreased by £23,354. The total amount of voluntary contributions was £484,275, as against £485,694 in 1897.

The General Assembly met in Edinburgh, May 18. The Rev. Dr. John Pagan, of Rothwell, was chosen moderator. The Lord High Commissioner mentioned that in addition to her annual gift of £1,000 for the Highlands and Islands schemes of the Church, the Queen had ordered another similar amount to be paid, with the suggestion that it might be used in encouraging young men to preach the Gospel in the Gaelic lan-

guage. The report of the Aged and Infirm Ministers' fund showed an increase in all the items except legacies, making up the total income of £3,620. A legacy of £10,000 had been left to the fund, but, being subject to a life rent, was not yet available. The Home Mission Committee had 252 missionaries at work. In the missions to the Jews, the operations of which were largely educational, 29 agents were engaged, with an attendance on their schools of 32,000 children, two thirds of whom were Jews. The report on foreign missions mentioned nearly 1,000 baptisms as having taken place during the year in the mission field; represented the income as steadily increasing and being now £29,000; and announced a steady increase of native workers, trained by the missionaries. A letters of thanks was ordered sent to the Rajah of Chamba, in India, for the gift of a church. The attention of the Assembly being drawn to the Government regulations in India which make it obligatory on Presbyterian chaplains to obtain the consent of the bishop of the diocese before they can use the Government churches, a lively discussion ensued in which the equal right of Presbyterians with Episcopalians to the occupancy of those churches was insisted upon. The moderator gave in his closing address a review of the present position of the Church as compared with that which it occupied at the close of the last century. Speaking generally, he maintained that there were now in the teaching of the Church a greater simplicity and at the same time a greater warmth than existed in former days. During the period under review free inquiry had had full scope, and even if the Church had seemed at first to resent the claims of liberal thought to deal with the sphere of religious belief, time and the event had shown that there was everything to gain and nothing to lose from honest and reasonable criticism. Referring to the question of Church union, the moderator suggested that while union had in the past done good, separate courses of action had also proved fruitful, and it was noteworthy that the period of an undivided Church, whether Roman Catholic, Protestant, or Presbyterian, had not been the brightest phase of Church history. He believed that the great body of ministers and people would rejoice if there could be union without the abandonment of principle.

VIII. Free Church of Scotland.—The General Assembly met at Edinburgh, May 18. The Rev. James Stewart, of the mission at Lovedale, South Africa, was chosen moderator. The statistical reports showed that there had been a larger increase of members during the past year than had been the average for eighteen years. The number of Sunday scholars had increased by 1,656, while there was a falling off of 341 in the number of teachers. The report on the colleges mentioned a serious decrease in the number of entrants, which was ascribed to the enforcement of the preliminary examination. An increase of more than £10,000 in the contributions for the Sustentation fund, which aggregated £184,028, had made it possible to bring most of the small stipends up to £200. The Committee on Union presented their report, relating the proceedings of the joint committee of this and the United Presbyterian Church and the result of their deliberations. A motion, offered by Principal Rainy, to the effect that the plan of union be sent down to the presbyteries under the barrier act for their consent thereto, and that those bodies be asked to authorize a future Assembly to effect union in accordance with the present proposals, was carried by a vote of 565 against 38 for an amend-

ment declining to send down the overture. The motion as adopted also recommended the reappointment of the Committee on Union, with injunctions to prepare the uniting act for submission, if possible, to the next Assembly. A memorial, signed by 16 members of the Assembly, was filed disputing the competency of the Church to accept the resolution, and declaring that they would not be bound by the Assembly's decision in favor of it. Among the specific recommendations incorporated by the joint committee in the plan of union were the recognition of three colleges—at Edinburgh, Glasgow, and Aberdeen, with six chairs at Edinburgh and at Glasgow, and 5 at Aberdeen; a theological curriculum of four sessions; a union of the scholarships into one scheme for the entire Church and all the Scottish universities, and one examination for them; that the General Assembly consist of an equal number of ministers and elders elected by the presbyteries, in a proportion equivalent to one third of the charges within their bounds; mission presbyteries to have no representatives, but missionaries ordained in Scotland to have, when at home on furlough, seats as corresponding members; the congregations to be organized into 61 presbyteries and 10 synods; the property and agents of the two churches in the foreign mission fields to be amalgamated, and the whole work to be managed by one administrative body. Rules and forms of procedure were left to be dealt with after union has taken place. A resolution in favor of the separation of Church and state was carried "almost unanimously." A commission was instituted and empowered to decide finally any appeals that might be made in carrying out the provisions of the inefficiency act. The opinion of the Assembly was expressed that ministers of the nonestablished Presbyterian churches at all military stations in Scotland should have equal opportunities to those at present secured to ministers of the Established Church. The Assembly decided to support the action to be taken by the Established Church on the position of Presbyterian chaplains in India. Concerning lotteries at church fairs, a resolution was approved reminding the people of the Free Church that lotteries were illegal and open to grave moral objections, and expressing the hope that the practice of holding them might cease. The Assembly recorded its profound thankfulness that a Peace Conference had been called, and the hope that beneficial results might follow its meetings.

IX. United Presbyterian Church of Scotland.—The statistical report presented to the Synod of this Church showed that the number of members was 197,476, an increase for the year of 1845. The membership in the foreign field showed an increase of 3,472. Returns were made of 589 congregations and 35 home mission stations, and of 835 Sunday schools and 816 Bible classes, with a combined total of 142,136 scholars. The salaried home mission agents numbered 144.

The accounts of the Synod treasurer showed that the total income for 1898 had been £423,106, representing an increase of £24,792. The contributions by the presbyteries, however, amounting to £43,989, exhibited a decrease of £1,344. Among the amounts contributed for special funds were: For the Jubilee thanksgiving fund for foreign missions, £15,000; and for the Jubilee thanksgiving fund for the extension of the Church at home, £15,217. The legacies for the year reached £8,081, an increase of more than £4,000. The funds invested amounted to £211,025. The staff in the foreign missions comprised 157 fully trained agents, of whom 62 were or-

dained European missionaries, 16 medical missionaries, 21 native pastors, 15 evangelists, and 43 zenana missionaries. One hundred and fourteen mission congregations returned 26,971 members, and 20,146 children were enrolled in the day schools.

The Synod met in Edinburgh, May 8. The Rev. John Robson, of Aberdeen, was chosen moderator. The report of the Committee on Union with the Free Church of Scotland was presented. All the presbyteries had expressed themselves in favor of union. Four of them reserved final approval until a complete scheme should be laid before them. Of 539 sessions from which returns had been received, 509 had expressed themselves in favor of union, 15 disapproved, and 15 returned a qualified answer. The procedure of the committee as related in the report was approved by a very large majority, and its recommendations were ordered sent down to the presbyteries and sessions for their action. The expression of the desire of the Synod for disestablishment was reiterated. The Temperance Committee were instructed to petition against the measure designated "Threefold Option." The Committee on the Jubilee Thanksgiving Fund presented its final report, showing that the total amount of £36,247 had been raised on account of the fund. The treasurer of the fund had in the previous year paid £30,000 to the moderator for home and foreign missions; and it was arranged that after allocating £2,000 for the reduction of the debt on the Synod buildings, the available balance should be divided, one half for church extension abroad and the other half for the same purpose at home. The report on Church life and work represented that the increase of substantial comfort which the commercial and industrial progress of the time had brought to almost all classes had its influence in adding to the difficulties of the Church and lessening its power to overcome them. The growing facilities for pleasure excursions, week-end visits, and holiday traveling were making inroads upon the regular habits of family life, the continuous church attendance, and the prosecution of systematic Christian work, and were helping not a little to break down Scottish use and wont in relation to family religion, Sabbath keeping, and the ministry of the Word. The report on Sunday observance described pleasure and money making as the chief enemies of the day of rest. A debate on the subject of marriage with a deceased wife's sister was closed by the adoption of a motion declaring it inexpedient, in view of the present position of the union negotiations, to proceed further with the matter.

X. Presbyterian Church in Ireland.—The statistical report of this Church, presented to the General Assembly in June, showed that there were in connection with the body 662 ministers, including missionaries, 52 retired ministers, 38 assistants, 29 licentiates, 128 students—a decrease of 37 from the previous year; 2,042 elders, 571 congregations, 84,379 families, 106,424 communicants, 479 mansees, and 1,098 Sabbath schools, with 9,216 teachers and 105,046 pupils. The Assembly's Temperance Association had on its roll 348 ministers and 564 elders. The number of families in the Church had increased during the year by 522. The income of the Church from all sources had been £261,135, an increase of £13,478 over that of the previous year. The income of the Sustentation fund was returned at £39,350, of which the congregational contributions amounted to £23,449, against £23,743 in 1898. The supplementary dividend had been de-

clared at £10. While the contributions to this fund and to the Orphan Society had increased, there had been a decrease in the missionary income. The average amount received by the Assembly from bequests during the past six or seven years had been about £7,000 a year. The Assembly's Fire Insurance Company had 400 policies in force, covering property to the value of \$530,603.

The General Assembly met at Belfast, June 8. The Rev. Daniel A. Taylor was chosen moderator. Resolutions were unanimously passed "against the widespread revival of Romanism in a Protestant Church established by the state as a retrograde movement and a reimposition upon the free conscience of England and the colonies of a yoke which neither we nor our fathers were able to bear." Resolutions were also passed requesting the Government to substitute the word "church" for "meeting house" in its official communications. A motion to invest the moderator with the title of Right Reverend received no countenance. The questions concerning the use of instrumental music and the singing of hymns in service, which have greatly vexed previous General Assemblies, was not raised this year, only one reference having been made to the controversy, in the discussion of the report on the new hymnary.

XI. Presbyterian Church in England.—The statistics of this Church as reported to the Synod in April showed that 315 congregations were connected with it, having 73,249 communicants (a net increase of 1,805 members), 7,546 teachers and 89,930 pupils in Sunday schools. The churches provided 163,738 sittings. The total value of church property was £1,842,532, against which stood debts aggregating \$92,076. The total income for the year was £278,889, exceeding the total of the previous year by £8,000. The revenue for missionary purposes was £28,018. The annual report of the Women's Missionary Association showed an income of £4,885, and dealt with the work of 20 woman missionaries. Nearly £34,000 had been devoted during the year to missions and charities in connection with congregations. The receipts of the Sustentation fund had been £45,701, and the expenditure, including £1,100 added to the Reserve fund, £46,590. The capital of the Widows' and Orphans' fund was £63,753, yielding a revenue of £2,430.

The anniversary of the Missionary Society was held May 16, the Earl of Aberdeen presiding. The year's income had been £25,082. Fifty European medical and other missionaries were supported in China, 20 of whom, not including the wives of missionaries, were women; with 150 native pastors and agents—all laboring in connection with 189 mission stations; while the number of communicants in China and Formosa was 6,000. Attached to the missions were 9 hospitals, where about 30,000 patients were treated annually, and colleges for training native evangelists.

The Synod met in London, April 28. The Rev. Charles Moinet, D.D., of Bromley, was chosen moderator. The report on religion and public morals expressed regret at the increasing laxity of Sunday observance; urged all who love the Sabbath to discourage by all means in their power the journals and other publications that issue Sunday editions; and found occasion for joy in the disarmament proposal of the Czar. The question of undertaking a twentieth century fund was referred to the General Purposes Committee, in conjunction with the College Building and Home Mission Committees, to report at the next meeting of the Synod. A special committee which

had been dealing for two years with the question of remedies for ministerial inefficiency, and had been seeking means to facilitate interchanges of pastorates, was dismissed. Presbyteries were empowered to arrange for the settlement of ministers who desire, with the full consent of their congregations, to exchange pastorates. A revision of the Book of Order was directed. A resolution was unanimously adopted recognizing the serious nature of the crisis in the Church of England, and expressing sympathy with the evangelical party in that Church in the embarrassment of its contest with ritualism. Arrangements were ordered made for the opening of the college (which had been transferred to Cambridge) in the ensuing October.

XII. Reformed Presbyterian Church (Scotland).—The annual meeting of the Synod was held in Glasgow in May, with the Rev. A. C. Gregg as moderator. The financial statement showed that credit balances existed of £539 to the account of foreign missions, £63 to that of ministerial aid, £150 in favor of the Aged Ministers' fund, £36 of home missions, £17 of publication, and £714 of the general fund; while a deficit of £120 was scored against the Synod fund. A gift of £20 was voted to the foreign mission scheme of the Waldensian Church.

XIII. Original Secession Church.—The annual synodical meeting of the Original Secession Church was held in Edinburgh in May. The Rev. Alexander J. Yule was chosen moderator. The reports submitted showed that the total income for the year had been £2,005, an increase of £315, and that a balance was carried over after all disbursements of £362. The aggregate sum now at the credit of the Synod's accounts was £4,983. A passage in the report of the Committee on Religion and Morals referred to the adoption of the Common Hymnary by the three great Presbyterian Churches as another step in the wrong direction, tending to the further disuse of the divinely inspired Psalter. The Synod resolved to petition the Government in favor of the Peace Conference invoked by the Czar of Russia, to ask it to take measures intended to secure the better observance of the Sabbath, and to oppose any measure that might be brought forward to legalize marriage with a deceased wife's sister. It expressed approval of the local veto and threefold option schemes, in respect to the liquor traffic.

XIV. Welsh Calvinistic Methodist Church.—The General Assembly met at Liverpool, May 15, with the Rev. Evan Phillips presiding. The Rev. Thomas Roberts, of Bethesda, was chosen moderator for 1900. The report of the foreign missions showed good progress in various fields in India. The year's expenditure on the work had been £10,353. The report of the statistician showed that notwithstanding the financial disturbances of the year in large parts of Wales caused by the coal strike, the interests of the Church had continued to grow. The result of the special appeal in behalf of the missions in Khassia, India, which had suffered from earthquakes, had been an excess of £8,500 in the collections over the total of any previous year. The number of communicants had increased 1,830; while the number of hearers showed a gradual increase, and was now 316,053. The chapel debts had been reduced £67,000. The total revenue of the 1,339 churches exceeded £246,000. A proposition was adopted for the celebration of the close of the nineteenth century by instituting a thank-offering fund of £100,000, to be devoted to purposes hereafter to be defined. The report of the Education Committee included the results of an

inquiry that had been made into the state of elementary and secondary education throughout Wales, and embodied a complaint that many nonconformist children were compelled to attend Church of England schools. The committee on spiritual provision for expatriated Welshmen recommended that something practical be done in regard to London and South Africa. A grant was accorded for sending a minister to the Transvaal, to work among the Welsh there, under the auspices of the South African Presbyterian Church. Four new Welsh churches had been built in London, but the monthly meeting considered itself unable to cope with the many thousands of neglected Welsh people there. A grant was voted for this work. A request was directed to be sent to the justices in Cardiff that they do not grant a license to sell intoxicating drinks in connection with the Eisteddfod. The report of the "forward movement" showed that the year's collections had amounted to £3,304, being £600 in excess of those of the previous year. At a meeting held in behalf of this cause, on the eve of the opening of the meeting of the Assembly, the secretary, the Rev. Lewis Ellis, said that though it had been only eight years since the enterprise was started, 30 or 40 new congregations had been formed, 30 halls built, and 20,000 people had assembled to hear the Gospel, of whom 2,000 were now regular church members.

PRINCE EDWARD ISLAND, a province of the Dominion of Canada; area, 2,133 square miles; population in 1891, 109,088. Capital, Charlottetown.

Government and Politics.—Lieut.-Gov. Howland was succeeded by the Hon. P. A. MacIntyre and a new provincial ministry, or rather a reorganization of the former Liberal Government was effected under the Hon. D. Farquharson as Premier; Angus McMillan as Provincial Secretary, Treasurer, and Commissioner of Public Lands; J. R. McLean as Commissioner of Public Works; H. C. McDonald, and afterward D. A. McKinnon, as Attorney-General; and J. W. Richards, Benjamin Rogers, Anthony McLaughlin, and Peter Sinclair as members without portfolio. The second session of the Legislature, from April 17 to May 19, 1899, was unimportant. The following were the only measures passed which need be mentioned:

- Respecting fisheries and rights of fishing.
- To provide for the construction of a wing to the Hospital for the Insane.
- To amend the public schools act of 1877.
- Respecting tuberculosis in cattle.
- To amend an act to regulate the registry of deeds.
- Respecting dower.
- To amend an act respecting assignments for the benefit of creditors.
- To amend an act relating to life insurance.
- To incorporate the Prince Edward Island Dairy Association.

Respecting the profession of medicine and surgery.

In December, 1899, Attorney-General McKinnon and another Government candidate were beaten in by-elections, and the ministry was left in a minority in the Assembly whenever it should meet again.

Finances.—In 1898 the expenditure amounted to \$301,609.75, the provincial loans paid off to \$14,246.50, and the receipts to \$277,458. The receipts included the Dominion subsidy, \$181,952; public lands, \$14,273; provincial land tax, \$30,084; debentures sold, \$18,094; miscellaneous, \$33,055.

Education.—The annual report of the public schools for 1898 showed 21,852 pupils enrolled, against 22,478 in 1888, and an average attendance of 13,377, against 12,248 in 1888. The expenditure in 1898 was as follows: Total amount expended by Government, \$129,817; statutory allowance to teachers, \$112,037; supplements to teachers, \$5,425; Prince of Wales College and Normal School, \$5,153; supplements paid to teachers by trustees, \$9,278; expenditure for school buildings, \$5,327; contingent expenses of school boards, \$18,527; total, \$163,032.

Industries.—The following facts are from the report of President Horace Hassard at the annual meeting, early in 1899, of the Charlottetown Board of Trade. The direct steamship service asked for by the board was inaugurated by the steamship Lake Winnipeg in September last, and she made a second trip in November, and after that the Canadian Steamship Company were induced to send the *Gaspesia*, which sailed hence on Dec. 25. From the port of Charlottetown and outports the foreign shipments during the year aggregated \$1,073,496, while the imports made a total of \$417,440, paying duties of \$121,016.92. From Summerside and outports the shipments of the year were \$251,551. The imports at Summerside and its outports aggregated \$59,829, of which \$30,960 were dutiable and \$28,869 free. The duties collected were \$10,944. The total exports for the island were \$1,325,047, and the dutiable imports \$296,775, paying \$131,960.92 in duties. The free imports were \$180,494.

The wheat crop largely failed; oats were light in yield and quantity; potatoes were a short crop, but hay was abundant and excellent. Praise was accorded the Fruit Growers' Association for the interest taken in securing apples for shipment. In regard to the dairying industry, it was asserted that in handling milk, raising fodder of the right kinds, feeding and caring for stock, etc., the advance since 1892 had been enormous. Thirty-four factories made cheese in 1898, and 15 made butter also, and in addition there were 6 creameries. The output was estimated at 46,000 boxes of cheese, while 14 butter factories showed 172 tons of butter. The number of cases of lobsters packed was 42,112. The oyster catch amounted to 29,800 barrels; mackerel, 3,149½ barrels, valued at \$44,037; codfish, haddock, and hake were plentiful, and a limited quantity of salmon was taken.

In live stock the island has long been well to the front, as the prize lists of the Halifax and St. John exhibitions of 1899 attest. And yet there has been a little falling off in both horses and cattle within a few years. The substitution of electricity for horse power on United States street cars has lessened the demand for horses, and the long-continued United States duties have in like manner depressed the export trade in that direction for all kinds of live stock as well as field products. Two chicken-fattening stations—one housed in the exposition building at Charlottetown and the other at Summerside—were established, and have proved successful. One of the chief new industries of the island is the great pork-packing establishment of Mr. Rottenburg, the largest of its kind in eastern Canada, near the Charlottetown railway station.

Notable improvements in the way of public buildings in 1898 included the new Prince of Wales College building, in which a solid masonry foundation is surmounted by a brick structure with stone dressings and slate roof, replacing an old and shabby wooden building. There is also a new Prince Edward Island Hospital building.

PROTESTANT EPISCOPAL CHURCH IN THE UNITED STATES. A summary of the statistics of Church progress in the year shows the following: The number of dioceses in the United States is 59; missionary jurisdictions in the United States, 17; missionary jurisdictions in foreign lands, 4; clergy (bishops, 84; priests and deacons, 4,734), 4,878; parishes and missions, 6,519; candidates for holy orders, 503; ordinations—deacons, 166; priests, 167; baptisms, 59,998; confirmations, 43,059; communicants, 699,582; marriages, 18,400; burials, 34,184; Sunday-school teachers, 47,151; Sunday-school pupils, 441,777; total of contributions, \$13,816,669.84.

The gross receipts for missions for the fiscal year that ended Aug. 31, including those for "specials," were \$886,858.59. The contributions for the work for which the board made itself responsible were \$388,092.35, and the amount received from legacies designated by the testators either for domestic or foreign missions or for the use of the society was \$114,598.95, making the amount that the board was free to use in the payment of its appropriations \$502,601.30. Legacies amounting to \$15,580 were permanently invested. The number of parishes contributing—24 more than the year before and more than in any previous year—was 3,746, and the amount of church offerings was larger than in any year except last year. The Lenten offering from Sunday schools, amounting to \$87,382.23, was the largest yet made, and was an increase over last year's offering of \$5,600. The number of schools contributing was 3,118, a gain of 87 compared with the previous year.

The receipts for domestic missions (including a balance from 1898 of \$31,409.40) were \$447,861.97. The payments on account of white, Indian, and colored mission work amounted to \$254,985.31; specials were \$51,302.90; portion of Woman's Auxiliary united offering of 1898 applied to appropriations for domestic missions, \$3,834.90; legacy expenses (one half), \$46.30; one half amount paid to annuitants, \$1,074.36; one half cost of administration and collection, \$12,802.56; half cost of printing reports of the board, Spirit of Missions for the clergy, pamphlets and leaflets for gratuitous distribution, \$9,430.09; legacies for investment paid to trust funds, \$10,580; returned to Standing Committee on Trust Funds, \$22,500; making the total payments for domestic missions, \$366,555.52, and leaving for domestic missions and specials at the close of the fiscal year a balance of \$81,306.45. The salaries of the bishops and the stipends of the missionaries in 17 missionary jurisdictions were paid, and in addition assistance was given to 42 dioceses. The whole number of missionaries, clerical and lay, male and female, receiving salaries or stipends was 1,149, and the amount appropriated to the whole work (including the sums not directly chargeable to the dioceses) was \$294,093.95. The number of parishes and missions contributing for domestic missions was 26 more than ever before.

The receipts for foreign missions (including a balance for foreign missions and specials from 1898) were \$405,416.45. The payments on account of mission work amounted to \$228,525.69; specials were \$44,371.77; portion of Woman's Auxiliary united offering of 1898 applied to appropriations for foreign missions, \$4,875; legacy expenses (half), \$46.30; half of amount paid to annuitants, \$1,074.35; half of cost of administration and collection, \$12,802.56; half of cost of printing reports of the board, Spirit of Missions for the clergy, pamphlets and leaflets for gratuitous distribution, \$9,430.09; legacies for invest-

ment paid to trust funds, \$5,000; legacy for church building in Mexico, \$500; returned to Standing Committee on Trust Funds, \$34,689.48; making the total payments on account of foreign missions, \$341,315.14, and leaving for foreign missions and specials at the close of the fiscal year a balance of \$64,101.21.

The reports of the missionary bishops are encouraging, and all express the need of means to extend their work.

The character of the mission work among the colored people is both educational and evangelistic, and in every Southern diocese the work is steadily growing in strength and self-dependence, and evidence is given of slowly but surely increasing interest and activity in this part of the domestic mission field. The number of communicants given at the beginning of the year was 7,985.

Early in the year the Rev. George B. Pratt, who already had instituted church services in San Juan, was appointed a missionary of the board to Porto Rico, and provision has been made for the salary of another clergyman in the same island. In October the Missionary Council adopted a resolution that "recommends to the Board of Managers of the Board of Missions that a bishop be sent at the earliest practicable day to inaugurate the work of the Church in each of our new possessions and other new fields of responsibility."

The work of foreign missions has been sustained with remarkable vigor and persistence. More missionaries were appointed than in any previous year, the number, including the wives of 3 of the missionaries, being 27; and, while there has been no great conspicuous awakening in the spiritual ingathering, there has been a most gratifying and encouraging broadening and strengthening of the work, which betokens a healthful growth and development.

In Liberia the number of baptisms has exceeded that of any previous year, being 374, nearly half of whom were adults; confirmations were 188, only 1 less than the highest number ever reached; the number of communicants amounted to 1,502, more than half of whom are from heathenism; and the sum contributed (\$2,054.93) was never before so large. Two priests and 3 deacons were ordained. Political disturbances caused the destruction of 2 of the missionary stations.

Church property in China was much improved during the year, and the missionary staff was strengthened by the appointment of 10 missionaries. Reports show gain at all points except in the number of those confirmed; but this last, though a seeming loss, is in reality due to the longer preparation and more careful training now required. The baptisms of natives were 415; confirmations, 109; communicants, 994; day pupils, 863; boarding pupils, 373; contributions, \$1,991.65 (Mexican dollars). All boarding and day schools have Sunday lessons equivalent to Sunday-school work in the United States; but, as the Chinese have no Sabbath, not much of this work is done among the heathen at large. The Pentateuch has been translated into the easy classical style, the Church service into the Shanghai colloquial, and a syllabary of the Hankow dialect has been compiled.

The evangelistic work of the Japan mission is full of encouragement, but the educational work is hampered by the action of the Government Department of Education, which in August issued a letter prohibiting religious teaching in all schools of certain grades, whether sustained by the Government or not. In other respects, the

policy of the Government in regard to religious propagandism is just and liberal. Statistics for the Japan mission give: Natives baptized, 302, of whom 209 were adults; confirmed, 208; communicants, 1,745; day pupils, 1,570; boarding pupils, 319; Sunday pupils, 2,062, of whom 312 are reported to be distinct from the day and boarding pupils; contributions, \$8,205.39. Seven additional missionaries were appointed to this field in the year, and at Kanazawa a building for religious and educational uses was erected and consecrated.

A movement of importance has been continued in Hayti in the gathering into the Church of converts from voodooism—an African superstition whose stronghold is at Léogane. The baptisms of infants in Hayti were 76; confirmations, 50; and contributions, \$1,618.30.

The work of the Mexican Episcopal Church has gone steadily on, and missions among the English-speaking people in Mexico are being extended. The baptisms in the year were 66; the offerings, \$963.64; and the number of communicants, 729.

The statistics of the chaplaincies in Europe show: Clergy, 12; priests ordained, 8; organized chaplaincies, 9; baptisms, 30; confirmations, 69; communicants, 1,420; contributions, \$23,388.

The receipts of the American Church Missionary Society amounted to \$78,862.86, an increase of nearly 250 per cent.; the expenditures to \$47,177.10. Of these sums, the receipts for the missionary workings of the society were \$67,159.56, and the disbursements for the same objects \$34,960.62; and of the balance of cash on hand, \$45,885.17, there remained available for the general work \$4,227.67, together with \$5,000 awaiting reinvestment. The contributions for Brazil for current expenses amounted to \$15,890.45; "specials" for building churches, to \$21,936.36; and for other purposes, \$1,352.79; and a measure of self-help has been attained in this field which is altogether unusual in the history of missions.

In Cuba the work interrupted by the war has been resumed, and missions are maintained in Havana, Matanzas, Bolondron, Sagra la Grande, and Guantanamo. For orphanages in Matanzas and Havana "specials" to the amount of \$8,395.83 were contributed, and for other purposes in the island \$254.30. The contributions for current expenses were \$7,290.02.

The missionaries of the society in the domestic field number 20, who care for 66 stations, in which the number of communicants is 1,205, of whom 109 were added during the year.

The summary of the work accomplished in the year by the Woman's Auxiliary and its junior department, in which 2,360 parishes and missions took part, shows an increase in contributions to the amount of \$8,883.25. In money, \$229,807.64 was given, and boxes valued at \$178,511.62. Of the total of \$408,819.26, the junior department gave money and boxes to the amount of \$32,729.95. The triennial "united offering" presented at the meeting of the General Convention in October, 1898, and amounting to \$82,818.86, should also be credited in the current fiscal year, making the total of contributions of the Woman's Auxiliary for 1899 \$491,138.12.

The American Church Building Fund Commission reports that in the year gifts to the amount of \$4,800 were made to 30 churches, and loans

amounting to \$9,050 were made to 7 churches. The contributions to the permanent building fund were \$5,387.05; interest on loans and investments, \$14,997.98; and loans returned by parishes and missions, \$34,611.08. The first gift made to build a church in a foreign land was the grant in September, 1898, of \$300 for a chapel in Kurvana, Japan. The fund now amounts to \$349,277.15.

No definite arrangements for the transfer of the diocese of Honolulu from the Anglican to the American Church have yet been made. The statistics of the diocese for 1899 show: Number of clergy, 9; priests ordained, 3; church edifices, 7; parishes and missions, 9; baptisms, 144; confirmed, 62; communicants, 572; Sunday-school teachers, 22; Sunday-school pupils, 390; parish-school teachers, 11; parish-school pupils, 335; contributions, \$6,585.

John Williams, D. D., LL. D., fourth Bishop of Connecticut and tenth Presiding Bishop of the American Church, died Feb. 7. Henry Niles Pierce, D. D., LL. D., fourth Bishop of Arkansas, died Sept. 5. Henry Adams Neely, D. D., second Bishop of Maine, died Oct. 31. (See OBITUARIES, AMERICAN.) Also the Church lost by death 95 other clergymen. On Dec. 28, 1898, the Rev. Junius Moore Horner, associate principal of Horner School, Oxford, N. C., having been elected first bishop of the missionary jurisdiction of Asheville, was consecrated bishop. Jan. 6, 1899, the Rev. Lucien Lee Kinsolving, rector of the Church of the Saviour, Rio Grande, Brazil, and resident representative of the bishop in charge of the Church in Brazil, having been elected first bishop for the United States of Brazil, with the title of Bishop of Rio Grande do Sul, Brazil, was consecrated bishop. Jan. 25, the Rev. Samuel Cook Edsall, D. D., rector of St. Peter's Church, Chicago, having been elected second bishop of the missionary jurisdiction of North Dakota, was consecrated bishop. On the same day, at St. Luke's Church, San Francisco, the Rev. William Hall Moreland, M. A., rector of that church, having been elected first bishop of the missionary jurisdiction of Sacramento, was consecrated bishop. This was the first episcopal consecration in the American Church west of Omaha. On Feb. 22 the Rev. Theodore Nevin Morrison, D. D., rector of the Church of the Epiphany, Chicago, having been elected third Bishop of Iowa, was consecrated bishop. July 13, the Rev. James Bowen Funsten, having been elected first bishop of the missionary jurisdiction of Boisé, was consecrated bishop. Sept. 21, the Rev. Joseph Marshall Francis, D. D., rector of St. Paul's Church, Evansville, Ind., having been elected fifth bishop of the diocese of Indiana, in succession to the Right Rev. John Hazen White, D. D., who on the division of the diocese had chosen the new diocese of Michigan City, was consecrated bishop. Oct. 18, the Rev. Arthur Llewellyn Williams, rector of Christ Church, Woodlawn, Chicago, having been elected Bishop Coadjutor of Nebraska, was consecrated bishop. Nov. 10, the Rev. William Loyall Gravatt, rector of Zion Church, Charlestown, W. Va., having been elected Bishop Coadjutor of West Virginia, was consecrated bishop. Oct. 26, at a special meeting of the House of Bishops, held in St. Louis, the Rev. Sidney Catlin Partridge, missionary in Wu-Chang, China, was elected bishop of the foreign missionary jurisdiction of Kioto, in Japan.

Q

QUEBEC, a province of the Dominion of Canada; area, 228,900 square miles, population in 1896, 1,488,535. Capital, Quebec.

Government and Politics.—The session of the Legislature was opened on Jan. 12, 1899, by Lieut.-Gov. L. A. Jette with a speech from the throne, of which the following are the chief portions:

"Among the occurrences of the year just ended, I can not pass over in silence the meeting in this capital, in August, of the international conference charged with the duty of harmonizing the many relations between the population of the United States and ours. The presence in our midst of the notable men to whom negotiations of so grave and so delicate a nature were con-

laws adopted at almost every session of this Legislature have led my Government to submit a complete consolidation to you. The increase in the territory of this province, caused by concurrent legislation of this Legislature and of the Parliament of Canada during their last sessions, necessitates the civil and judicial organization of the newly acquired territory. You will, at the same time, be called upon to define again the northern, northeastern, and northwestern limits of the counties adjoining such territory. The proper administration of the public lands renders certain important amendments to the laws governing them imperatively necessary.

"In view of the financial situation which it had to face on its accession to power, the pres-

QUEBEC, FROM THE TERRACE.

fided was a source of satisfaction, and even of pride, to the inhabitants of this city, and at the same time was a tribute paid to the oldest province of the confederation. During the sitting of that commission, in September, the statue erected by the city of Quebec in honor of Champlain was inaugurated, and a more solemn or imposing spectacle was never witnessed by the population of this city.

"The decision by the Judicial Committee of the Privy Council with reference to the respective rights of the Government of Canada and the provincial governments over the fisheries of this country has necessitated legislation on this important matter. The numerous amendments to the game

ent Government found itself compelled to reduce public expenditure as much as possible, and to push the collection of the revenue in order to obtain the indispensable equilibrium between annual receipts and expenditure. This task was all the more difficult that the previous Government, after reducing the ordinary receipts by the extinction of several sources of revenue, and increasing the expenditure by statutory enactments greatly exceeding what it had provided for in its estimates had destroyed the basis on which it had founded the calculations of its last financial statement. Notwithstanding all these difficulties, my Government has succeeded, if not in completely doing away during its first year with the deficit

of the previous year, at least in considerably reducing it.

"My Government has devoted special attention to the most effective means of promoting agricultural progress, and to that end it has been considered that it was urgent to encourage, within the measure of its annual revenue, the improvement of municipal roads. It has done so by contributing liberally to the purchase of stone-breaking and road-making machines. The efficacy of this policy is manifest from the fact that within the past fifteen months over 100 municipal councils have provided themselves with these machines, by means of which over 1,200 miles of good road have been completed.

"The excellent reputation acquired by our fruit on the European markets, whither our exports have hitherto been directed merely as an experiment, has induced my Government to devote special attention to this important branch of our agricultural products. Five experimental fruit-growing stations have been established at various points in the province. We have reason to be satisfied with the work that has been done, and the continuation thereof will give a surer direction to our fruit growing, and in a methodical and rational manner establish the general principles that should guide it.

"Colonization has also received special attention from the Government. New roads have given access to regions hitherto uninhabited, which are now rapidly filling up with industrious settlers. Side by side with these agricultural groups, immense industrial establishments have sprung up in the heart of the forest, attracting large numbers of the working classes, for whom they provide employment by utilizing our forest resources for the manufacture of pulp and paper."

The chief legislation of the session was in connection with education. A measure was introduced and carried which consolidated existing laws and made detailed improvements, but omitted the main point of the unsuccessful bill of the preceding year, and did not attempt to appoint a political head to the Department of Education, which had been created by its terms. Legislation was carried forbidding the municipalities from attracting industrial concerns from each other by means of bonuses, and three extra judges were appointed for the city of Montreal. The House adjourned on March 11, after passing 158 measures, of which the following were the chief:

Respecting the constitution of the Superior Court.

Respecting certain immigrant children.

Respecting the inspection of insurance and other companies.

Respecting mutual benefit associations and charitable associations.

To amend the municipal code.

Respecting agricultural societies.

Respecting asylums for the insane.

To amend the Quebec license law.

Respecting public lands.

To revise the charter of the city of Montreal.

To incorporate Loyola College.

To incorporate the Provincial Trust Company and Agency Company.

To amend the pharmacy act.

To amend the law respecting dentists.

To incorporate the Catholic High School of Montreal.

To amend the civil code respecting the privileges of *voyageurs*, lumberers, and others.

To amend the act concerning civil engineers.

Respecting conciliation.

Late in December, 1898, four by-elections had taken place, in which the Conservatives gained one seat.

Finances.—On Feb. 7 F. G. Marchand, Premier and Provincial Treasurer, presented his annual budget to the Legislature. He stated that the public accounts for the fiscal year ending June 30, 1898, showed that the ordinary receipts and expenditure for that year, including the amounts received on the railway subsidy tax, embraced ordinary receipts amounting to \$4,177,656 and ordinary expenditure to \$4,364,686. The ordinary receipts for the previous year (1896-'97), as established on a new basis by his administration, were \$3,874,966, and the ordinary expenditure \$4,685,450. Thus the diminution of the deficit amounted to \$623,458. The decrease in expenditure chargeable to capital was as follows: The payments for railway subsidies in 1897-'98 were less by \$1,143,572 than in the previous year. The payments on Quebec Railway construction claims were less by \$4,256 than in 1896-'97. The balance of railway subsidies authorized by statute, but not yet earned, on June 30, 1898, was \$925,682. The amount repaid on guarantee deposits in 1897-'98 was less by \$143,715 than in 1896-'97. The balance of these deposits on June 30, 1898, was \$132,702.

Referring to the current year (1898-'99), Mr. Marchand said there was no reason to anticipate that the estimated expenditure would be exceeded, except in the item for lunatic asylums, for which an additional amount of \$45,000 had been asked, owing to the increase on the tariff under the contract passed Feb. 24, 1897, with the St. Jean de Dieu Asylum, and the increase in the number of patients in the asylums generally, and in payment of unforeseen and in great part uncontrollable expenditure.

As for the revenue, he said that the receipts for the six months had been in proportion to the estimates. He estimated the total receipts for 1899-1900, from all sources, at \$4,204,899, in which the Dominion subsidy figured for \$1,277,799; interest for \$310,000; land, forests, and fisheries for \$1,050,000; justice for \$255,900; licenses for \$675,000; direct taxes on commercial corporations for \$160,000; and duties on successions, \$225,000, etc. He placed the probable total ordinary and extraordinary expenditure at \$4,177,755, while for the probable payments out of capital he set down \$446,812, being \$33,072 for the reimbursement of railway guarantee deposits, and \$413,740 for railway subsidies, etc.

A statement of the assets and liabilities of the province as they stood on June 30, 1898, was given, showing that, including the public debt and its increase owing to the debt conversion policy, the amount of the liabilities was \$36,793,038, and of the assets \$10,962,565. A statement of the funded debt showed that on June 30, 1897, the amount outstanding was \$34,196,654, and on June 30, 1898, \$34,283,841. On the other hand, there had been invested during the year in the sinking fund \$10,677, bringing the latter investment up to \$10,004,677, and leaving \$24,279,163 as the net amount of the funded debt. The floating debt was placed at \$2,300,247 on June 30, 1898. Against this there was in cash and in claims for loans and advances to individuals and corporations a total of \$767,887.

The Provincial Treasurer in the late Conservative Government, A. W. Atwater, replied to Mr. Marchand. He said that from May, 1897, the Government had taken \$281,600 by special warrants to pay pretended claims which in the ordinary course would not have been paid until the

Legislature had voted the funds. As an example of the deferring of the collections, many Crown lands items were cited which should have been credited to 1897, and were credited to 1898. For the year ending in June, 1896, the receipts of that department were \$1,045,310; for the year 1898, \$1,087,042; while for 1897 they were only \$879,893. On the other hand, for the first six months of the fiscal year 1897 the Crown lands receipts were \$448,940, while for the same period of the previous year they were only \$194,339. This year the first six months produced \$515,727, from which must be deducted \$135,000 for the sales of lumber, which left the ordinary revenue \$380,000. The speaker charged the Government with having tried to prevent the payment of some of the liabilities incurred in 1897, and quoted various claims, making a total of unforeseen expenditure of \$628,790, which the present Government would be obliged to pay. In comparing receipts and expenditures for the years 1896 and 1898, Mr. Atwater said that in every department, except Public Works, the expenditure had been increased, and that an examination of the accounts showed that, though the Government started with a clean sheet at the beginning of 1897-'98, and a balance of uncollected revenues, there was really a deficit of \$239,230.75. Mr. Atwater closed by moving a long five-clause resolution to the effect that the House had already to vote the supplies, but regretted that the Government had, between May 25 and June 30, 1898, issued special warrants for the amount of \$281,628, and protesting against any expenditure by such warrants. This was, of course, voted down.

Shipping and Fisheries.—The tonnage of vessels calling at the ports of Quebec and Montreal, etc., increased somewhat in the year. British tonnage rose from 2,319,092 in 1897 to 2,577,989 tons, but purely Canadian tonnage decreased from 88,512 to 77,312 tons, and foreign tonnage from 255,633 to 205,403. The product of the sea fisheries of the province was valued at \$1,737,011 in 1897. The fishing bounties paid in 1897 were \$32,157, and since 1892 had amounted to \$494,396. The number of fishermen thus engaged and receiving the bounty was 7,688, and the value of the vessels was \$583,403. The fish exports from the province in 1898 were valued at \$485,135.

Railways.—The Report of the Hon. Mr. Duffy, Commissioner of Public Works, showed the length of railways in Quebec, at the close of the year 1897-'98, to be 3,377 miles, of which 2,802 miles were constructed after July 1, 1867, the date of confederation. During the past twelve months the province had paid in aid of railway construction \$185,285, as follows: To the Quebec, Montmorency and Charlevoix Company, \$15,191;

to the East Richelieu Valley, \$50,000; and to the Great Northern, \$120,000. There was also paid, in conversion of land subsidies, \$26,090, being \$9,555 to the Baie des Chaleurs, \$11,375 to the Montreal and Lake Maskinonge, and \$5,160 to the Great Northern. There remained to be paid on the same account \$9,573, being \$773 to the Hereford, \$7,356 to the Great Northern, and \$1,443 to the Baie des Chaleurs. Since confederation (1867) the province had paid for the construction of, or in aid of railways \$15,993,000, and by the legislation of the past ten years was under obligation to pay \$900,000 more.

Education.—In 1898 the report of the department showed in the schools of the province 304,197 pupils, of whom 256,669 professed French as their mother tongue, and 47,528 English. They were cared for in 5,784 schoolhouses, 5,096 of which were wooden, 393 brick, and 295 stone. In regard to the schools, the leading features of their work were thus summarized :

INSTITUTIONS.	Roman Catholic.	Protestant.
<i>Elementary Schools.</i>		
Number of schools.....	4,274	588
Pupils.....	176,681	27,578
Average attendance.....	122,594	20,671
Male lay teachers.....	65	33
Female lay teachers.....	4,227	1,085
Average salary, male teachers.....	\$222	\$570
Average salary, female teachers.....	\$108	\$128
<i>Model Schools and Academies.</i>		
Number of model schools.....	481	53
Pupils.....	65,453	4,379
Number of academies.....	127	36
Pupils.....	25,640	4,465
Grand total of pupils.....	91,093	8,845
Average attendance.....	76,334	7,017
Male lay teachers.....	208	78
Female lay teachers.....	394	236
Male religious teachers.....	856	7
Female religious teachers.....	2,373	.....
Average salary, male lay teachers.....	\$492	\$694
Average salary, female lay teachers.....	\$120	\$201

Compared with 1897, these figures showed increases of 66 in Roman Catholic and 14 in Protestant elementary schools; of 6,916 in the total attendance at Roman Catholic schools; of 3,670 in the average attendance at Roman Catholic schools and 119 at Protestant elementary schools, and of 6 in the number of Roman Catholic and 4 in the number of Protestant model schools. There were decreases of 11 in Roman Catholic and 1 in the number of Protestant academies. There were increases, also, in the number of lay teachers, both Protestant and Catholic in the elementary schools, but a falling off of 21 in the number of male lay teachers in Roman Catholic academies and model schools.

R

REFORMED CHURCHES. I. Reformed Church in America.—The Board of Home Missions of this Church reported to the General Synod that it had received \$83,870, or \$829 less than in the previous year. In that year a legacy of \$15,000 had saved it from distressing debt, and a legacy of \$10,000 had done the same for the past year; and the debt of \$4,947 in the former year had been reduced to \$3,226. The sum of \$120,000 was mentioned as the amount it was desired to raise for the coming year. The Woman's Executive Committee had received \$23,166, \$3,052 more than in the previous year, of which

\$17,781 went into the general fund and \$5,384 to the Indian work. Permission was granted to the board by the General Synod to secure an amendment to its charter allowing its missionaries to engage more directly in evangelistic work when the establishing of churches seems doubtful.

The General Synod authorized the apportionment of the sum of \$12,000 among the classes for the general fund of the Board of Education.

The investments of the Disabled Ministers' fund were returned as amounting to \$63,293, and the resources for the year to \$8,940. The expenditures had been \$6,697.

The total receipts of the Board of Foreign Missions had been \$112,000, of which \$105,000 were contributed by churches, schools, societies, and individuals. The expenditures, not including those for the Arabian Mission, had been \$121,000. The debt had therefore been increased \$9,000, and was now \$49,000; but it was partly offset by a balance of \$13,000. Eight-six missionaries had been employed in the field, with 448 native ministers and assistants. There were returned in India, China, and Japan 42 native churches, 4,458 communicants, 23 seminaries and boarding schools with 1,100 students, 177 day schools with 6,200 pupils, 215 Sunday schools attended by 6,550 children, and 6 hospitals and dispensaries where 31,000 patients had been treated during the year. The General Synod recommended that a special effort be made to remove the debt of the board, advising that a missionary be assigned to lay before the churches the opportunities and needs of the work; fixed \$120,000, aside from legacies and interest on invested funds, as the least amount that would suffice to meet the requirements of the missions; and recommended that the churches during 1900 make a monthly offering for foreign missions. An effort to raise \$12,000 for the regular work of the Arabian Mission was approved.

The twenty-fifth anniversary of the Woman's Board of Foreign Missions was held May 9. The treasurer's statement showed that the receipts for the past year had been \$33,029, of which a small balance still remained in the treasury. The secretary of the sewing guild reported gifts from 92 societies and 15 individuals. The work had been systematized and greatly enlarged, and 3,185 articles had been distributed among the foreign missions, including that in Arabia. One hundred and thirty-two bands among young people and children, exclusive of Christian Endeavor Societies, had given \$1,556. The "Baby Roll" showed a membership of 312 infants, the gifts made in whose name go to the support of a babies' home at Perth Amboy, N. J. Twenty-four missionaries were under the special care of this board.

The General Synod met at Catskill, N. Y., June 7. The Rev. George S. Bishop, D. D., of Orange, N. J., was chosen president. The report of the Committee on the State of Religion returned the number of churches of the denomination as 643; of ministers, 701; of families, 59,751; of additions on confession, 4,806; of communicants, 111,665; showing gains of 10 churches, 18 ministers, 1,057 families, and 952 communicants. The number of new members was smaller than for several years past. The Sunday-school enrollment in 1898 was 123,667, an advance of nearly 3,000 over that of 1897; but during the past year there had been an almost equal decline, and the number was now 120,759. The number of Sunday schools was 922, as against 923 in 1898. The contributions to denominational benevolent objects had increased from \$227,849 in 1898 to \$233,831 in 1899, while the contributions to nondenominational objects had fallen off from \$103,846 to \$82,154. The expenditures for congregational objects, \$1,058,040, had increased \$52,164. The Committee on the Amsterdam Correspondence reported that a very important advance had been made in the work committed to their charge. The Rev. Dr. Corwin, agent of the committee, had returned to the United States in November, 1898, bringing a large amount of material collected in Holland, consisting of transcripts of original documents found chiefly at Amsterdam and The Hague. An appropriation had been obtained from the New York State Legislature for the translation of these

documents, and their preparation for publication under the general direction of the State historian. The ends aimed at in obtaining these transcripts could now best be secured by leaving the whole business in the hands of the general committee who had carried the charge of the matter, and at whose request Dr. Corwin had performed his duties, which would act in connection with the Governor and Historian of New York in carrying out the provisions of the act of the Legislature of that State. The committee asked, therefore, to be discharged. The report of the Committee on Sunday Schools and Catechetical Work emphasized the importance of those causes, since, apart from preaching, the religious instruction of the young is almost entirely left to these two agencies. All the classes of the Church except one had appointed permanent Sunday-school Committees, and through these the Sunday-school work had had such care and oversight as it had never enjoyed before. Returns were made by 477 Christian Endeavor Societies and 69 Junior Societies. The Brotherhood of Andrew and Philip returned 54 chapters in this denomination. Less than one third of the Sunday schools had contributed to the boards of the Church—\$12,289 for foreign missions, \$8,138 for domestic missions, and \$173 for education. The Christian Endeavor Societies had given \$5,690 for foreign missions, \$2,749 for domestic missions, and \$60 for education. The home department was in operation in 58 Sunday schools, and included 2,103 members. Normal classes were formed in 54 Sunday schools. The General Synod had on two former occasions about a half century apart, appointed committees to report on the general state of the Church; the first in 1788, on the Administration of the Polity of the Church; and the second in 1847, on the Improvement and Enlargement of its Policy; it now, in view of the approach of the twentieth century, when "the Church stands in a far higher position as to knowledge and experience, means, and opportunities, as well as responsibilities," constituted and appointed, in harmony with the precedents cited, a general committee of 24 members, including the president of the General Synod and representatives of the several boards and institutions of the Church, to review the past progress and present condition of all the departments of church work, and suggest plans for the improvement and enlargement of the same, and to report in the next year, if possible. The Rev. Ferdinand S. Schenck, D. D., was elected Professor of Pastoral Theology and Sacred Rhetoric, and the Rev. John H. Raven Professor of Old Testament Languages and Exegesis in the Theological Seminary at New Brunswick, N. J. The Rev. J. F. Zwemer was appointed an agent to secure an additional endowment of at least \$50,000 for the Western Theological Seminary. A resolution was unanimously adopted, declaring the uncompromising opposition of the Synod to the remarriage of guilty parties in divorce proceedings as opposed to the spirit and mind of Christ, and enjoining the entire body of the Church, clerical and lay, "to take no part in giving approval to such remarriages, however authorized by State law, but, on the contrary, to co-operate unceasingly in the work of developing a strong and healthy public sentiment which shall diminish, if not suppress, the evil practice." A resolution was adopted protesting against the seating of B. H. Roberts as a member of the national House of Representatives from Utah.

II. Reformed Church in the United States.

—The report to the General Synod on the state of the Church represented that during the three

years since the previous meeting of the General Synod encouraging progress had been made in all the departments of the Church's activity. Many new churches had been erected, and 23 new congregations had been organized. The number of ministers had increased from 961 to 1,046, and the membership from 226,572 to 238,644; but the aggregate of benevolent contributions had fallen from \$676,271 to \$630,454; while the contributions for congregational purposes had increased from \$3,067,780 to \$3,212,306.

The General Synod met in its thirteenth triennial session at Tiffin, Ohio, May 23. The Rev. Calvin S. Gerhard, D. D., of Reading, Pa., was chosen president. The Board of Home Missions reported that on account of the stringency of the times its work had not been enlarged during the past three years. It returned 142 missions, with 15,275 communicant members; 162 Sunday schools, with 17,100 teachers and pupils; \$29,696 raised by the missions for benevolent and \$141,008 for congregational purposes, and \$62,079 received for church building. Only \$98,508 of the \$135,000 promised by the synods had been received, and a deficiency of \$26,492 had been incurred. The Woman's Board had contributed \$6,903; legacies amounting to \$12,423 had been received; the board had 80 church-building funds, amounting to \$40,000; 8 Hungarian missions were under its care. A Hungarian traveling missionary had been appointed, a Hungarian paper was published, and the formation of Hungarian classes was asked for. A Bohemian mission had been opened in Chicago. The Board of Foreign Missions reported concerning the mission in Japan, where, with 8 organized churches and 48 unorganized companies of believers, 1,811 communicant members, and 1,623 children in Sunday schools, the field had been divided into a northern and a southern section. The board had not seen its way clear to go into any new field. The Sunday-school Board had employed 12 missionaries, organized 7 Sunday schools, and formed five congregations. In its educational department it had labored for the establishment of home departments of the Sunday schools and for the development of a "twentieth century movement" in behalf of a larger Sunday-school membership; and it had published periodicals and books. Its net profits had been \$9,672. The Committee on Correspondence with Foreign Churches reported correspondents in Germany, Austria, Switzerland, Hungary, Holland, and Russia. Delegates were appointed to the meeting of the Reformed Alliance at Magdeburg, Germany. The subject of the establishment of missions in Cuba and Porto Rico was referred to the Foreign Board. This board was also instructed to open a mission in China. The policy of comity and co-operation in the cultivation of unoccupied mission fields was recommended for favorable action. A committee was appointed to formulate some plan for raising money for benevolences less objectionable than the present apportionment system. The report on temperance recognized the great sin of intemperance, and expressed the full accord and hearty sympathy of the Synod with the temperance work. The work of deaconesses was commended to all the classes and consistories. The Society for the Relief of Ministers and their Widows was invited to enter into closer union with the General Synod. The observance of the Lord's Day as "for every man a day of rest, a day of worship, a day of the promulgation of the Gospel, and a day of doing works of love and mercy" was commended in special resolutions,

and ministers and Sunday schools were advised to take such steps by preaching and instruction as would emphasize the perpetual obligation of the fourth commandment. Favorable action was taken regarding the formation of Hungarian and Bohemian classes. The holding of annual conventions of Hungarian pastors and churches, to have advisory power after the approval of their conclusions by the Board of Home Missions, was authorized; the provision of a suitable course of reading on the subject of American church life was recommended for the benefit of Hungarian missionaries; and the Board of Home Missions were enjoined in their intercourse with foreigners, subjects of missionary work, to emphasize "the imperative necessity of systematic and persevering effort on their part toward self-support." Measures were taken looking to the strengthening of mission work among the Germans in large cities and of the Harbor Mission in New York city.

REFORMED CHURCHES, ALLIANCE OF. The seventh General Council of the Alliance of Reformed Churches holding the Presbyterian System met in Washington, D. C., Sept. 27. The Rev. Marshall Lang, D. D., of Scotland, presided. The opening sermon was preached by the Rev. Prof. John DeWitt, of Princeton, N. J. It was on the subject of The Bible and the Reformed Churches, and presented the conservative attitude of ecclesiastical thought as opposed to the modern school of criticism. An address of welcome was made by the Rev. Dr. W. Radcliff, pastor of the New York Avenue Church, Washington, in which the meeting was held. The opening address of the moderator, Dr. Lang, was on The Progress and Permanence of Christianity, and was regarded as presenting the more liberal or "advanced" school of Presbyterian thought. A report made by the Rev. Dr. G. D. Matthews, general secretary of the Alliance, gave the following summary of the Presbyterian and Reformed Churches in the world:

COUNTRY.	Ministers.	Churches.	Communicants.
Austria.....	98	89	70,751
Hungary.....	2,609	2,055	279,436
Belgium.....	49	50	4,500
France.....	689	569	89,665
Germany.....	132	130	27,553
Italy.....	95	99	25,156
Netherlands.....	2,148	2,061	400,000
Switzerland.....	163	85	16,152
United Kingdom.....	5,183	5,375	1,474,225
Asia.....	255	199	50,726
Africa.....	290	315	125,556
North America.....	14,522	17,935	2,110,431
South America.....	61	93	12,965
West Indies.....	80	33	11,133
Australia.....	460	457	62,965
New Zealand.....	201	172	25,638
Totals.....	26,476	29,733	4,842,594

In this table some "minor" churches were omitted, and some branches which made no reports were not included. The number of "attached" members—that is, of Sunday-school children and persons who, while not members attend more or less regularly upon Presbyterian worship, was estimated at 25,000,000. Of the communicants 1,000,000 spoke the Continental languages of Europe, Asia, and Africa, and 4,000,000 the English language. An organic union of the various churches composing the Alliance was regarded as not possible, owing to the diverse conditions. The belief of the churches showed different shades of orthodoxy, and their polity and their church forms were likewise varied. The fellowship between the different churches had

been increased through the agency of the Alliance, and the knowledge of each other had advanced; and now Presbyterians no longer looked upon their Church as a small affair, but as an organization extending throughout the world. "We have," the secretary said, "more ministers, more congregations, more elders, more church members, more children under Sabbath-school instruction, than ever before, with much larger sums of money contributed for home and foreign Christian work."

As several of the churches represented in the council fundamentally disapprove the singing of any hymns in worship except those of scriptural origin, the Psalter was used exclusively in the devotional services of the Council. The next meeting of the Council was appointed to be held in Liverpool, England, in 1904. The Rev. Principal William Caven, of the Presbyterian Church in Canada, was designated to be its president.

RELIGIOUS TRACT SOCIETY. The one hundredth anniversary of the Religious Tract Society, London, was celebrated May 5. The formation of the society, in 1799, seems to have been suggested by a series of cheap tracts which had been published by Hannah More, and were found to be answering a very useful purpose. The Rev. George Burder, of Coventry, was led by the fact to think whether a further series might not be published which should set out more clearly the evangelical doctrines of the Gospel. On May 8, 1799, Mr. Burder, after the annual sermon of the London Missionary Society, met the ministers who had attended the meeting, when, after an explanation of his plan, a breakfast meeting was appointed for the next day at St. Paul's Coffee House. This meeting was attended by about 40 persons, and the society was formally organized under a name, the Religious Tract Society, which has never been changed. The total circulation of the society's publications since 1799 has amounted to more than 3,000,000,000 copies. Among the special features of this circulation are mentioned the publication of the Pilgrim's Progress in 91 languages and dialects and the circulation of 4,649,000 copies of the tract called The Swearer's Prayer, which was first published in 1806. The trade receipts for the Jubilee year were £38,421; for the past year £109,141. The missionary receipts for the past year had been £794 in excess of those of the previous year, but the grants had exceeded the income by £5,309. Seven hundred and one publications had been issued during the year.

RHODE ISLAND, a New England State, one of the original thirteen, ratified the Constitution May 29, 1790; area, 1,250 square miles. The population, according to each decennial census, was 68,825 in 1790; 69,122 in 1800; 76,931 in 1810; 83,015 in 1820; 97,199 in 1830; 108,830 in 1840; 147,545 in 1850; 174,620 in 1860; 217,353 in 1870; 276,531 in 1880; and 345,506 in 1890. By the State census of 1895 it was 394,758. Capitals, Providence and Newport.

Government.—The following were the State officers in 1899: Governor, Elisha Dyer; Lieutenant Governor, William Gregory; Secretary of State, Charles P. Bennett; Treasurer, Walter A. Read; Auditor and Insurance Commissioner, Charles C. Gray; Attorney-General, Willard B. Tanner; Superintendent of Education, T. B. Stockwell; Adjutant General, Frederick M. Sackett; Commissioner of Industrial Statistics, Henry E. Tiepke; Railroad Commissioner, E. L. Freeman; Record Commissioner, R. Hammett Tilley; Factory Inspectors, J. Ellery Hudson and Helen M. Jenks; Surgeon General, George H. Kenyon; In-

spector of Beef and Pork, James R. Chace; Inspector of Lime, Herbert Harris; Commissioner of Sinking Funds, John W. Danielson; Inspector of Seythe Stones, Benjamin Wilson; Chief Justice of the Supreme Court, Charles Matteson; Associate Justices, John H. Stiness, Pardon E. Tillinghast, George A. Wilbur, Horatio Rogers, W. W. Douglas, and Benjamin M. Bosworth, who died Feb. 9 and was succeeded by Edward C. Dubois; Clerk, B. S. Blaisdell—all Republicans.

Finances.—At a meeting of the Sinking Fund Commission in March it was found that there was \$96,000 in the fund, and it was invested. In order to change the investment of the permanent school fund, the bank stocks in which it was invested were sold at auction, Feb. 9, and good prices were realized, in many instances higher than the market quotation. The reason for the change is the shrinkage in value of the bank stocks since the fund was placed in them.

The Governor said in his message that the State has reached the point where more money than is in sight is required, not for public improvements, but for public necessities. There is a steady rise in the State's expenses, calling for care in appropriations and for revenue measures.

The valuation of Providence this year amounts to \$188,501,780, a gain of \$6,943,060.

Education.—The fiftieth class of the State Normal School, 36 members, was graduated in June; and at the same time 25 completed the city training course. The appropriation for the year was \$54,000, and \$2,000 for pupils' traveling expenses.

The College of Agriculture and Mechanic Arts, at Kingston, conferred the degree of bachelor of science on 15 graduates this year, of whom 5 were women. Certificates were granted to 21 other students. Its State appropriation was \$10,000.

Among the new free public libraries are those of Portsmouth and Wickford, opened this year; the corner stone of one was laid at Pawtucket in November. The Legislature appropriated \$7,000 for free libraries.

The enrollment at Brown University in 1898-'99 was larger than ever before—925, including 99 graduate students and 165 members of Pembroke, the women's college. The faculty numbered 79. Dr. W. H. P. Faunce was inaugurated as president, Oct. 17. The income for the fiscal year 1898-'99 was \$129,677.73; the expenditures, \$142,700.24; there were guarantees amounting to \$9,000, leaving a net deficit of \$3,022.51. The endowment funds amounted to \$1,158,677. The movement to increase the fund by \$2,000,000, which was undertaken early in 1898, was retarded somewhat by the uncertainties caused by the war with Spain. It has reached about \$550,000, all of which appears to be conditioned upon the whole amount being subscribed. The university extension work has been discontinued, interest in it having died out.

The appropriation for the public schools was \$142,000.

Charities and Corrections.—The number of inmates at the State institutions at Cranston at the close of the year were Workhouse and House of Correction, 249; Hospital for the Insane, 723; Almshouse, 374; Prison, 196; Providence County Jail, 250; Sockanosset School for Boys, 329; Oaklawn School for Girls, 46. The total number of inmates of both sexes at the different institutions was: Men, 1,138; women, 614; boys, 358; girls, 57; total, 2,167. The total number shows a decrease of 43 during the year. The Legislature appropriated \$20,000 for repairs at the institutions.

The report of the Rhode Island Hospital shows the average number of patients was 168.37. The receipts were \$67,008; expenditures, \$87,238. Of this, \$4,700 was subscribed by guarantors, leaving the remaining deficiency to be paid from the capital of the hospital. A new pavilion was nearly finished at the close of the year.

The Rhode Island Homœopathic Hospital is in danger of closing for want of funds. The expenses are \$5,000 more than is received from patients.

The Society for the Prevention of Cruelty to Children had 200 new cases in 1899, involving 446 children. It received \$2,500 from the State.

Military.—At the encampment of the National Guard at Quonset in July there were present 95 commissioned officers and 698 men, besides 42 bandmen.

A monument erected to the soldiers of the civil war by the Providence Association of Mechanics and Manufacturers was dedicated June 9, at Roger Williams Park.

An enthusiastic welcome was given to the Rhode Island regiment of volunteers on their return, April 1, to Providence. The colors of the regiment were placed with the archives in the old Statehouse. There were 1,334 men enlisted in the regiment; 49 men from the State were in the United States Hospital Corps. In batteries there were 220 men. The Naval Reserve is not included in the report cited. The expense of the State for recruiting and equipping the troops was \$221,344.14, of which \$212,009.81 was charged to the Government. The State still has a claim against the Government for interest in connection with equipments and supplies furnished to troops during the civil war.

Industries.—Textile industries are carried on in 134 mills, the spindles numbering 2,056,316.

Strikes have taken place among mill operatives at Warwick, Warren, Pawtucket, Natick, Slatersville, Smithfield, Dodgeville, Waterford, Ashton, Bristol, Centerville, and other places; more than 3,000 persons were reported on strike at one time. The principal cause appeared to be that the increase in wages which was announced for April did not equal the cut of 1897 and restore the old prices. There were also strikes of iron molders in Providence and Pawtucket.

Railroads.—There are 16 steam railroad corporations in the State, but only 3 are operating roads, the others having leased their lines and property. The receipts for the year from all sources were \$39,604,572.50; total expenditures, \$33,802,530.36; net earnings, \$5,802,036.14. This is an increase in net earnings of \$215,881.79. The increase in the freight departments was \$1,030,602.39. The number of persons employed in this State by the railroads is 2,722, a decrease of 44 from last year.

The total receipts of street railroads were \$2,027,693.09; expenditures, \$1,217,325.53; net earnings, \$810,367.56. This is an increase of receipts of \$64,776.09; a decrease in expenditures of \$78,590.15; an increase in net earnings of \$143,366.24.

Banks.—The Rhode Island Institution for Savings winds up its affairs after being in liquidation since 1878, having been one of the indirect victims of the Sprague failure. It has paid total dividends of 95.5 per cent.

The Globe National, of Providence, is to liquidate and be closed on account of unprofitable conditions.

Legislative Sessions.—The regular sessions of the General Assembly were held in Providence from Jan. 31 to May 26, and in Newport, May 30 to June 1. A special session was held for two

days, Sept. 19–20. Frank E. Holden was Speaker of the House.

The revised Constitution was again adopted for submission to vote. The time at which the question of a constitutional convention should be submitted to vote was placed at the general election of 1906.

The general act relating to negotiable instruments which was recommended by the national conference of State Commissioners on Uniform Legislation was adopted.

It is forbidden to walk or ride a bicycle on a railroad track on penalty of \$5 to \$20.

The office of deputy railroad commissioner was created.

The act granting State aid to towns for road-making was repealed, and the office of State Commissioner of Highways was abolished.

Authority was given to the State Board of Charities to appoint a State probation officer; and, at their discretion, other probation officers, one at least of whom shall be a woman, to serve during the pleasure of the board in any court having jurisdiction in the place of their appointment. Offenders under the age of sixteen are to be placed temporarily in charge of these officers before sentence. They are not to be placed with adult offenders.

Insurance companies are to pay 2 per cent. of the gross premiums and assessments on property insured in the State and on that insured in other States on which the company is not taxed. Mutual insurance companies incorporated in the State are exempt from taxation by cities and towns on personal estate, except upon the surplus of ratable personal estate in excess of the amount of their unearned premiums and the outstanding claims against them.

A new caucus act was passed. A party to have standing must have polled 2 per cent. of the vote for Governor at the last State election; but nominations may be made by filing papers with 50 signatures of men who have not attended a caucus. Other enactments were:

For appointment of 5 commissioners of birds.

For inspection of concentrated commercial feeding stuffs.

Prohibiting the use of trading stamps.

Making Jan. 1 a legal holiday.

Making unlawful the use of bottles or other vessels with trade-marks by other than proprietors of the marks.

Constituting one justice of the Supreme Court a quorum for trial of petitions for divorce.

Providing that petit jurors be selected by lot and examined by court.

Fixing penalty for abduction of children under sixteen.

Giving ambulances the right of way on roads.

The report of the survey of the line between Rhode Island and Massachusetts having been made, the line was established. The town of Tiverton loses some land, and Pawtucket gains.

According to a custom that has prevailed for several years, the Legislature voted compensation to members for their work on committees—from \$175 to \$500 each. Two representatives, Messrs. Kimball and Brayton, returned the checks sent to them as such payment, objecting to the principle. At the June session an act was passed fixing the amount of pay for committees authorized to sit and hold hearings during recess at \$10 a day for actual attendance. Salaries of clerks for the 3 most important committees—judiciary, corporations, and finance—were fixed at \$800; and other committees will not have provision for clerks or payment for members.

Revision of the Constitution.—The question of a revised Constitution was again submitted to the voters June 20, the amendments proposed amounting to a revision. They were substantially the same as those voted upon in 1898. The proposition was defeated, 4,057 voting for, and 12,472 against.

Protection of Birds.—Under an act providing for the establishment of a Board of Bird Commissioners, the following were appointed: Fenner H. Peckham, Thomas W. Penney, E. R. Lewis, William H. Thayer, and A. O'D. Taylor. They are to receive no salary from the State, and all expenses must be provided for by voluntary contribution. It is their duty to see that violations of the laws relating to birds not only, but also to rabbits, hares, and squirrels, are punished.

The Last Chief.—Gideon Ammons, eighty-eight years of age, the last of the chiefs or presidents of the council of the tribe of Narragansett Indians, was found dead in the woods near his home in Charlestown in November. He was elected a member of the council in 1847, and remained one till 1878, holding the office of president many times. By the act of March, 1880, the reservation, about 5,000 acres, was ceded to the State. But Gideon Ammons claimed that the tribe still owned a strip extending from the shore, worth \$1,075,000, not included in the cession.

Roger Williams Rock.—A public park has been made on the spot where Roger Williams landed in 1636 and heard the salutation from an Indian on the hill, "What cheer, Netop?" What was left on the surface of the rock on which he landed, Slate Rock, was blasted into building material twenty-one years ago. Five years ago the city council appropriated \$3,000 for making the lot into a park, but the work has been delayed. A huge boulder now marks the site of the rock. The park is now several hundred feet from the water, the front having been filled in from time to time.

Political.—The State election took place April 5. Nominations were made by 4 parties.

The Prohibitionists met at Providence, March 1, and nominated for Governor, Joseph A. Peckham; Lieutenant Governor, Alonzo C. Gardiner; Secretary, William P. Bradley; Treasurer, Smith Quimby; Attorney-General, Thomas H. Peabody. Besides approving the general principles of the party, the resolutions said on State affairs: "We acknowledge with shame that our own State is under the domination of one of the most corrupt political dictators that ever lived, and we call upon all good citizens to combine in an effort to overthrow him."

"We demand, therefore, if we are to have a revised Constitution, that it be prepared for the people's judgment by a constitutional convention composed of men elected by the people for that purpose."

The Democratic convention at Providence, March 14, named as candidate for Governor, George W. Greene; Lieutenant Governor, Robert H. Wade; Secretary, Miles A. McNamee; Treasurer, Edmund Walker; Attorney-General, George T. Brown. The platform said, in part: "In this State both the theory and the practice of government by the people have become obsolete. The theory is denied, because, according to the interpretation put upon the State Constitution by the dominant faction of the Republican party, sovereignty is now vested in the votes of two fifths of the people of the State with one vote added. This faction asserts that a minority of the electors can keep the Constitution of the State forever unchanged."

"Every citizen must admit that the government of Rhode Island for all practical purposes is vested in a corrupt political machine. Under its orders laws have been recently passed which can never be amended or repealed. From this intolerable condition of public affairs no relief seems possible save through a constitutional convention whose delegates are chosen by the people."

The Republicans, at Providence, March 15, renominated all the elective State officers. The resolutions were mainly in support of the policy of the party on national issues and in praise of the existing State administration. They concluded as follows:

"We therefore appeal to all friends of good government, of sound money, of the supremacy of the law, and of the best and highest interests of the State, not to be misled by the specious utterances of those whose performance has so often falsified their promise, and who have presented a free-silver candidate for Governor upon a platform containing no word concerning their financial policy, who strenuously urged the inauguration of a complete change in the Constitution in a manner unknown to the Constitution, and in defiance of the opinion of our court of last resort, and who make the question of this unlawful change in the fundamental law paramount to all other issues."

The election gave all the offices to the Republican candidates. For Governor the vote stood: Dyer, Republican, 24,308; Greene, Democrat, 14,602; Herrick, Socialist-Labor, 2,941; Peckham, Prohibitionist, 1,279. The Legislature will stand: Senate—31 Republicans, 6 Democrats; House—58 Republicans, 13 Democrats, 1 Prohibitionist.

ROMAN CATHOLIC CHURCH. Pope Leo XIII, on Jan. 22, published a letter to Cardinal Gibbons entitled *Americanism*, which terminated the dispute as to the soundness of the doctrines ascribed to Father Isaac Hecker, founder of the order of the Congregation of St. Paul. These doctrines had been bitterly attacked in the previous year by French critics of a translation into that language of Father Elliot's *Life of Father Hecker*; and under the title of *Americanism* the more virulent of these critics attributed to the Catholic Church in America radical departures from recognized Catholic teaching, and called upon the Pope to pronounce upon them authoritatively. The letter was expected at the end of 1898, but was evidently held back until time should have softened to some extent the asperities of the controversy. Although upon its appearance it was promptly claimed by each side as a victory, the document itself favored neither. His Holiness cleverly avoided any declaration upholding the contention of the French *doctrinaires* that the errors ascribed to the American Church were really received by it as truth, while at the same time he let it be understood that these teachings, if they really existed, were dangerous and heretical. His attitude toward the main point of the French charge was indicated in one of the opening paragraphs in the letter. "You are aware, beloved son," he wrote, "that the book on the life of Isaac Thomas Hecker, more especially by the work of those who have undertaken its translation and editing in a foreign language, has aroused no small controversy as to the introduction of certain opinions concerning the methods of the Christian life." And in the closing paragraph in the letter he vindicated the name *Americanism* from the reproaches heaped upon it by the foreign controversialists by simply giving it a definition. "From what we have said, be-

loved son, it is evident that we can in no way approve of those opinions which sometimes are included under the name of *Americanism*. If, indeed, by that word is meant certain qualities of mind which distinguish the people of America, as other nations are distinguished, and in so far as the expression applies to the Constitution of your States and your laws and customs, there is not assuredly the smallest reason for us to think that it should be rejected. But if it is used not only to describe, but also to justify the errors we have already pointed out, what doubt can there be that our venerable brethren the bishops of America will be the first to reject and condemn it as injurious to themselves and the whole nation?"

In accordance with the custom instituted by Pope Boniface VIII at the end of the thirteenth century of promulgating a solemn secular jubilee to mark the end of each one hundred years, his Holiness on May 11 issued a bull marking the year 1900 as a holy year, and endowing with extraordinary indulgences those who should make a pilgrimage to Rome in the year of jubilee. Tradition declares that a similar summons was issued in the early ages of the Church, and the custom has been followed uninterruptedly at the end of each century except the last, when Pius VI, then a prisoner of Napoleon, died at Valencia in 1799. The last solemn jubilee, which Leo XIII mentioned in his bull as having personally witnessed, took place in 1825, and was accompanied with the solemn ceremony of the opening of the holy door. The holy year proper, according to the papal promulgation, was to begin on the feast of the Nativity, Dec. 25, 1899, and extend to Dec. 25, 1900. The special indulgences for the jubilee were extended only to those who should make a pilgrimage to Rome, and should visit on ten several days the four great basilicas of St. Peter, St. Paul, St. John Lateran, and St. Mary Major. From those obliged to visit Rome to gain the jubilee indulgence were excepted the members of religious committees and those who, beginning the pilgrimage, should through illness be prevented from completing it. In November the Pope issued two further decrees, the first suspending for the holy year the usual indulgences and the second formally constituting the jubilee indulgence to be gained by a pilgrimage to Rome. He also extended to the ordinaries of the Church the unusual privilege of permitting the celebration of midnight mass on the evening of Dec. 31 of the years 1899 and 1900.

The Pope on Christmas Day inaugurated the jubilee with the solemn ceremony of opening the holy door. This ceremony, which is usually performed but once in a century, originated in the year 1500, in the papacy of Alexander VI. At that time, among other extensive preparations made for the accommodation of pilgrims, the street leading from the bridge of San Angelo to St. Peter's, now known as the Borgo Nuovo, was widened to allow the processions to pass to the basilica with more freedom, and the custom of reserving a special entrance into the church, to be opened with solemn ceremony for the jubilee year became a law from this time forward. The four principal churches of Rome have each five portals, one of which, called the *porta aurea* or *porta sancta*, is ordinarily closed by a wall of solid masonry, and opened only for the celebration of the jubilee, probably to symbolize the special spiritual privileges to which the Church gives access on that occasion. There is an altar inside the holy door, and on it mass is celebrated on Christmas Day in conjunction with the opening

and closing of the jubilee gate and the holy year. In the ceremony of opening the holy door, the Pontiff proceeds in solemn procession to the *porta aurea* of St. Peter's, and strikes the wall at the entrance thrice with a golden mallet, after which it is immediately opened by workmen who stand on the inside. Three cardinals at the same time perform a similar ceremony, using silver mallets for the opening of the *porta aurea* of St. Paul, St. John Lateran, and St. Mary Major.

Although in January the Russian ambassador to the Holy See presented to his Holiness the programme of the disarmament conference, yet, owing to the adverse influence of the Italian Government, the Holy See was not invited to the conference itself. The question of the Pope's right to be represented, which the Czar had taken for granted, was brought up by the Quirinal early in February when Admiral Canevaro, Minister of Foreign Affairs in the Rudini Cabinet, notified the Russian Government and that of Queen Wilhelmina that the Pope ought to be excluded. M. Beaufort, Minister of Foreign Affairs for the Low Countries, was disposed to accede to Italy's demands; Russia and England protested, saying that the exclusion of the Pope would be regarded in an unfavorable light by Christendom; but the Cabinet at Berlin clinched the point for Italy by declaring that if the Quirinal would decline the invitation to the conference Germany also would withdraw. The Holy See was accordingly not invited.

The Pope took occasion, however, at his reception to the Sacred College, to express his entire approbation of the Czar's initiative, and, in order to remove any feeling of constraint in the Italian delegates, had Mgr. Tarnassi, the papal inter-nuncio at The Hague, absent himself for some weeks from the capital of the Low Countries. The influence of the papal chair in peace councils was nevertheless recognized by a letter from Queen Wilhelmina to his Holiness, dated April 5, asking the Pope's moral co-operation in the work of the conference. To this the Pope replied, assuring the Queen of his highest sympathy and co-operation.

Among the public documents issued by his Holiness were a commendation of the Civiltà Cattolica on the occasion of its fiftieth anniversary and a concession of indulgence in honor of St. Mathildis. The Civiltà Cattolica, which was established in the pontificate of Pius IX by the Jesuits, was by this papal brief practically confirmed as the personal organ of the Pope, and the commendation was considered an unusual approbation of the teaching and methods of the Jesuit order. An apostolic letter was issued on May 25, consecrating the human race to the Sacred Heart.

At a private consistory held on June 19 the following appointments were made: Mgr. Huayek to be Patriarch of Antioch for the Syro-Maronites; Mgr. Macaire, Patriarch of Alexandria for the Copts. To be cardinal priests: Mgr. Casali del Drogo, Latin Patriarch of Constantinople; Mgr. Casseta, Latin Patriarch of Antioch; Mgr. Portanova, Archbishop of Reggio, Calabria; Mgr. Francica, Nova di Bontifè, Archbishop of Catania and Nuncio Apostolic at Madrid; Mgr. Ciasca, O. S. A., titular Archbishop of Larissa and Secretary of the Congregation of Propaganda; Mgr. Mathieu, Archbishop of Toulouse; Mgr. Respighi, Archbishop of Ferrara; Mgr. Richelmy, Archbishop of Turin; and Mgr. Missia, Archbishop of Gorz. To be cardinal deacons: Mgr. Trombetta and Padre Calasanzio da Slevaneras, O. S. F. C.

By a decree of the Sacred Congregation of Rites the new litany in honor of the Sacred Heart was

solemnly approved for the whole Church. The same congregation in November raised the feast of St. Bede the Venerable to the dignity of a general feast for the whole Church, with a proper office and mass.

Electric light on an extensive scale (6,000 lamps of 16-candle power) was installed in the Vatican in January. Leo XIII said, in reference to this noteworthy event in the history of the apostolic palace: "People will no longer be able to reproach the Vatican with being the enemy of light."

The Sacred College lost seven of its members by death in the course of the year. They were Cardinal Americo Ferreira dos Santos Silva, Bishop of Porto, Portugal, aged seventy; Cardinal Augustine Bausa, Archbishop of Florence, aged seventy-two; Cardinal Krementz, Archbishop of Cologne, aged seventy-nine; Cardinal Sourrieu, Archbishop of Rouen, aged seventy-four; Cardinal Schönborn, Archbishop of Prague, aged fifty-five; Cardinal Mertel, Vice-Chancellor of the Church, aged ninety-three; and Cardinal Verga, Bishop of Albano, aged sixty-seven.

United States.—Although the papal letter on Americanism was directed to Cardinal Gibbons, it was felt to be addressed to every member of the Catholic episcopal hierarchy in the United States, and was so received and acknowledged. Several of the more important archdioceses throughout the country, notably Baltimore, Philadelphia, and Milwaukee, responded with letters to his Holiness, thanking the Holy Father for his care, and generally condemning and repudiating the views censured by the apostolic letter under the name of Americanism. The superior general of the Paulists, of which Father Hecker was the founder, also thanked his Holiness for defining the objectionable heresy, and promised that the Life of Father Hecker would be withdrawn from sale and altered until it should meet in all respects with the approbation of the Apostolic See. The general tenor of the letters was that of deep gratitude to the Pope for defining Americanism out of existence, and thus refuting the accusation of the French *doctrinaires* that the American Church was given over to heretical doctrines and practices. The term as used by the accusers had been made to cover every form of objectionable dogma, and the papal letter, by defining the two senses in which the term was used, slew no lion of heresy, but a particularly annoying cockatrice.

The annual meeting of the archbishops of the United States was held on Oct. 12 at the Catholic University of America, Cardinal Gibbons presiding. The most important action of the meeting was the decision to appeal to the Congregation of the Propaganda to persuade that body to allow the Christian Brothers to maintain their course of study as pursued for some years in the United States. Early last year the superiors of the order in France proceeded to enforce the rule that the brothers should teach only the branches of a common-school education, thus absolutely prohibiting the teaching of the classics. It was from this last inhibition that the appeal of the archbishops was made.

It was also decided by the meeting to maintain out of Church funds the Indian mission schools, the Government appropriation for which was due to expire June 30, 1900.

The decision of the Propaganda on the appeal of the archbishops was reached in December. It was adverse, being to the effect that the Christian Brothers would be obliged to follow the letter of the rule of the order and cease altogether from teaching classics.

By a decision of the Supreme Court of the United States in the case of *Bradford vs. Roberts*, it was held that a hospital managed by a Catholic religious society was not a religious institution within the meaning of the Constitution. The court maintained that such an institution (referring specifically to the Providence Hospital in Washington, the appropriation to which of a sum of money by Congress brought the matter before the court), when its work was not confined to the members of the Church to which its directors belonged, was a secular corporation.

Five episcopal sees were made vacant through death in the course of the year 1899. Right Rev. William O'Hare, Bishop of Scranton, died Feb. 3; Right Rev. John Vertin, Bishop of Sault Ste. Marie and Marquette, Feb. 26; Right Rev. John A. Watterson, Bishop of Columbus, April 17; Right Rev. Thomas A. Becker, Bishop of Savannah, July 29; and Right Rev. Louis de Goebriand, Bishop of Burlington, Nov. 5; Right Rev. James Duggan, formerly Bishop of Chicago, died March 27.

Right Rev. John W. Shanahan was in January appointed Bishop of Harrisburg, and Right Rev. Peter Bourgade was transferred from the episcopal see of Tucson to the archbishopric of Santa Fé. Other episcopal appointments were: Right Rev. Alexander Christie, formerly Bishop of Vancouver Island, Archbishop of Oregon; Right Rev. G. A. Rouxel, Auxiliary Bishop of New Orleans; Right Rev. James H. Blent, Bishop of Porto Rico; Right Rev. Frederick Eis, Bishop of Marquette; and Right Rev. Frederick C. Hopkins, S. J., Vicar Apostolic of Honduras.

The American archbishops in February issued a general appeal for funds for the support of the Indian and negro missions in the United States. Of the entire number of Indians in the United States (112,130), nearly two thirds, or 74,468, professed the Catholic faith, having 135 Catholic churches and 74 priests.

The Catholic population of the United States at the end of 1899 was reckoned at 10,130,000. The number of archbishops was 14; bishops, 77; priests, 11,636, of whom 8,660 were diocesan. The number of churches was given as 10,339.

Cuba.—The passing of Cuba into the hands of the United States produced a change in the condition of the Catholic Church in the island which promised many a perplexing problem before the Church could be put on a self-supporting basis. Under Spanish rule the clergy received salaries from the Government, the Bishop of Havana receiving the same salary as was given the Governor General. Although the Church was possessed of much valuable property in Cuba, the separation of Church and state left the former financially embarrassed, partly because the Spanish Government had turned into the public purse a large part of the Church revenues, and partly because the Governor General of Cuba had also borrowed extensively from ecclesiastical funds. None of these sums had been repaid, and after a conference between Cardinal Gibbons and Archbishop Chappelle it was decided to present the claim to the representative of Spain, to which power the Church looked for reimbursement.

In the meantime the change from an established church supported by the Government to a free one depending on the contributions of the people compelled a radical change in the entire system of administration. To add to the embarrassments of the situation, a majority of the priests in the island gave notice of their intention to return to Spain. The Church found much difficulty in getting Spanish-speaking priests to take

their places. It was seen to be necessary to establish, without delay, American colleges for the training of priests for service in Cuba and Porto Rico, who should be familiar not only with local conditions, but should also understand political conditions in the United States. The establishment of one such college at New Orleans was decided upon early in the year.

The Philippines.—The war carried on by the American troops against the insurgents resulted in the desecration and spoliation of much of the property of the Church in the islands. In spite of numerous reports to the contrary, Archbishop Chappelle, apostolic delegate to the Philippine Islands, late in the year expressed himself as satisfied that, except in a few detached cases, the looting had been done not by American soldiers, but by the insurgents and Chinese. Several friars were put to death by the insurgents early in the year, and later the leaders of the insurgent troops demanded, as a condition precedent to the acceptance of terms of peace, the expulsion of the friars from the islands and the confiscation of their property. The demand was based upon alleged irregularities and informalities in the titles to the property, but investigation by the American military authorities failed to disclose any such flaws, and the demand was not considered further. Many of the friars, however, who were Spaniards, mainly of the order of St. Augustine, returned to Spain.

As the work of suppressing the rebellion proceeded the monks returned and reopened churches, colleges, and schools in the provinces under American military jurisdiction. Twenty-four Dominican fathers left Barcelona, July 15, to reopen the University of Manila. In December the apostolic delegate visited the islands, for the purpose of investigating the condition of Church affairs, and in particular the alleged flaws in the titles to property of the religious orders. Before his departure he visited President McKinley at the White House, and was by him commissioned to submit to the insurgents certain intentions of the American Government as to the future administration of the archipelago.

England.—The great cathedral at Westminster, which was begun in 1894 at an estimated cost of £100,000, reached a partial stage of completion in 1899, the entire building having been roofed in by the end of the year. Early in July the entire fund at the disposal of the architects (about £95,000) was exhausted, and the work of raising funds was begun. A pastoral letter signed by every bishop in the English province was issued and met with a generous response, sufficient funds being raised to carry on the work, and almost enough more pledged to complete the edifice. It was planned to finish work on the structure by September, 1900, but a difficulty in obtaining materials caused much unforeseen delay. The structure as planned was to be an enormous one, the supporting arches of the nave rising 90 feet from the floor. Nothing but stone was used in its construction save in the domes, which were built of broken brick mixed into a concrete with Portland cement, the mass being 3 feet thick at the arches, tapering to 13 inches at the crown.

The Pope, July 3, issued an apostolic constitution to the Benedictines of England, for the purpose of consolidating the order in that country and giving it uniform laws and regulations. The constitution, after defining the power of the abbots and priors of various houses and regulating the course of studies, raised the monasteries of Downside, Ampleforth, and Douai to the dignity of abbeys.

A ceremony which had been almost unknown in England since the Reformation took place on Sept. 3, when the Bishop of Birmingham blessed and enthroned Mgr. Anagor, first Abbot of St. Thomas's (Benedictine) Abbey, at Erdington.

Right Rev. Robert Brindle, D.D., was on Jan. 27 appointed titular Bishop of Hermopolis and Assistant Bishop of Westminster. Before his promotion he was one of the best-known chaplains in the British army, and received the only pension for distinguished and meritorious service ever given to a Catholic chaplain.

Right Rev. James Bellard, Bishop of Milevis and Vicar Apostolic of Gibraltar, received episcopal consecration on May 1. He was the second army chaplain to be raised to episcopal dignity in 1899, having served with British troops in the field since 1870.

In the United Kingdom and its dependencies there was in 1899 a Catholic population of 10,500,000, as follows: England, 1,500,000; Scotland, 365,000; Ireland, 3,550,000; British America, 2,600,000; Australia and smaller colonies, 2,000,000. There were in England 32 Catholic peers, 17 Catholic lords not peers, 55 Catholic baronets, 19 members of the Privy Council, 3 Catholic members of the House of Commons for England and 69 for Ireland.

Ireland.—The project for a Catholic university in Ireland, which had been agitated for twenty-five years, met a sudden and unexpected rebuff in the statement of the Duke of Devonshire, made in March, and to the effect that "no practical measure dealing with this subject would be brought forward during the existence of the present Government." The blow was especially severe to the friends of the university in view of the favor with which the project had come to be regarded among Englishmen both Catholic and Protestant, and of the promises of leading statesmen of the United Kingdom, notably Mr. Balfour, who had from the beginning approved and aided the measure, and the Earl of Cadogan, the Viceroy of Ireland, who publicly promised his full assistance and co-operation in obtaining it. The setback was especially severe to those who had advocated the proposed scheme of national union, which even its most earnest supporters admitted had been postponed ten years by the Duke of Devonshire's flat refusal to consider a measure of relief.

A strong protest against the Duke of Devonshire's statement was made on June 25 by the bishops of Ireland, who, with Cardinal Logue at their head, passed a resolution calling upon the English Parliament to take up the question. The matter was brought up shortly after by Mr. Dillon and Mr. Balfour in the House of Commons, and though the project was strongly favored by part of the existing ministry, no measure of relief was introduced. The Duke of Devonshire's objection was mainly on the ground that the voters of Ulster opposed the project, and as in them he found the warmest adherents to the unionist policy of the existing Government, to their opinions especially was he bound to defer. The subject was dropped at the outbreak of the war with the Transvaal, but late in the year rumors of French preparation for war brought the question again to the front. Irish sympathies were generally with the Transvaal, and it became incumbent upon Lord Salisbury's Government so to remold Irish opinion as to make it safe to intrust the defense of Ireland to her own sons in case of a French invasion. The gift of a Catholic university was then considered, and by part of the Cabinet favored, as affording a sufficient sop to Irish pride. But the matter was passed over

by the Cabinet majority, part of whom held that the question was too important to be settled out of hand, part that no efforts of conciliation would woo Ireland to a proper fervor of loyalty, and the third part, headed by Lord Salisbury himself, that a less considerable reform would suffice as a pledge of amity, while not committing the party to a definite policy in the matter. His counsel prevailed, and before the end of the year several unimportant concessions were agreed upon.

The new cathedral of St. Canice, Kilkenny, which had been building since 1843, was completed early in the year at a cost of £60,000, and formally opened by Cardinal Logue, Archbishop of Dublin, April 9. The vacancy in the see of Meath was filled June 24, by the consecration of Rev. Dr. Gaffrey.

France.—The work, begun in 1898, of removing from the hospitals and charitable institutions the members of religious orders who had previously managed them and placing the institutions under lay control was continued in 1899, with no particular benefit to the institutions concerned and the creation of a deficit in the national budget. Under the sisters the average cost of daily maintenance per patient was 2 francs 50 in the Paris hospitals; under secular control it rose to 4 francs 20. Early in the year the Augustinian Sisters, who had done service for 1,200 years in the hospitals of the French capital, were expelled, and on the day of their expulsion they had no roof to shelter their members. A deficit of 217,000 francs in one hospital alone was attributed to the discontinuance of fasting and the increase of wines at the nurses' table. The results of laicization thus far were summarized in the Paris Journal of April 6: "Incidents of varied kinds give the public no chance of forgetting that our hospitals are in lay hands; attendants figure in the police courts, distorted figures of charity; nurses little the better for drink are found on the very steps of the hospitals whither they go on duty; a poor patient is forgotten in an over-warmed bath, and threatens to die as *consommé humain*." Of the 1,486 congregations in France, male and female, 731 were in 1899 still recalcitrant as regarded the heavy tax levied in preceding years, and had refused to pay it. In a good many cases the congregations were engaged in active charitable work or in foreign missions, which under the law exempted them from the new rule of taxation, but in the majority of instances the exempt orders made common cause with those not exempt. Under an order of the Council of State issued in October the Minister of Finance proceeded to stringent measures to collect the tax, and succeeded in dishousing 9 congregations. A further measure of repression was indicated by the Government the same month, when the ceremony of consecrating the Abbey Church of Fontgombault was prohibited by the direction of M. Millerand, Minister of Finance. The abbey, which was founded by the Benedictines in 1141, and was destroyed in the French Revolution, had previously been rebuilt, and elaborate ceremonies were announced in connection with its dedication. This celebration, the minister announced, he could by no means allow, inasmuch as he had already solemnly dissolved the Benedictines, who, having no further existence, could not legally consecrate a church. He, however, permitted a banquet to take place in the abbey, though all toasts were suppressed. In the following month three bills were introduced into the Chamber of Deputies aimed at the religious congregations. One provided that candidates for the service of

the state in any capacity must have spent three years in a school affiliated with the University of Paris; the second was intended to enforce payment of the *droit d'accroissement*—the tax above mentioned; while the third formally prohibited any citizen of France, male or female, from making irrevocable vows, any renunciation of individual rights.

The royal chapel at Versailles was closed in September by a resolution of the Chamber of Deputies dismissing Canon Tessier. The chapel was closed during the Revolution, but opened again by order of Napoleon. Since the establishment of the republic it has been the usual place of worship of the presidents. The Budget Commission in November recommended to the Chamber of Deputies the closing of 35 episcopal sees and the suppression of the embassy at the Vatican.

The great celebration in honor of Jeanne d'Arc at Orleans was inaugurated on May 6 by the unveiling of a large equestrian statue of the maid in the courtyard of the bishop's palace in the presence of an enthusiastic throng. The *fête* lasted three days, and was marked by the presentation of the banner of La Pucelle by the mayor to the bishop and a panegyric on the maid delivered by Archbishop Ireland, who laid stress upon the duty of patriotism incumbent upon Catholics, and pointed out how in the long-hoped-for canonization of Jeanne d'Arc the Church would give to France a patron saint of patriotism.

The Pope, between whom and the French Government has not existed an understanding as complete as his Holiness desired, took occasion in May to tell M. Henri des Houx, who is writing a life of Leo XIII, that the republican Government had his fullest sympathy and support. His Holiness recommended Catholics who favored the old dynasties to set aside their political predilections, to acknowledge the republic loyally, and enter its service. This statement of the Pope, made in a public manner, was evidently intended to destroy the contention of the royalist party that the Church still looked for the revival of monarchical government, and indirectly it was intended to create a closer sympathy between the present Government and the Vatican. Mgr. Lorinzelli, Archbishop of Sardis, was appointed in June by the Pope Nuncio Apostolic to Paris to succeed Mgr. Clari. In presenting his credentials to President Loubet, the nuncio assured the President of the declared intention of the Vatican to further in every way the interests of the republic, and to exhort Catholics to loyalty to the existing form of government.

His Holiness under date of Sept. 8 addressed a long encyclical letter to the French bishops and clergy on the selection of subjects as candidates for the priesthood in the work of the missions at home and abroad, and on the manner in which the priests should discharge their sacred duties. In the letter the Pope renewed the affirmation of his affection and solicitude for France, and urged the clergy to increased devotion in view of the strong atheistic tendency in France.

Upon the appearance of the papal letter on Americanism, Cardinal Richard issued a pastoral letter to the clergy of France, calling on them to give the papal document a careful study, and pointing out to them the errors it mentioned. In reply Abbé Klein sent to the cardinal his declaration of submission to the Pope, and regretting the errors mentioned if he had inadvertently fallen into them in his preface to the French version of the Life of Father Hecker. He also stopped the sale of the book.

Cardinal Perrand on May 6 celebrated the twenty-fifth anniversary of his episcopal consecration at Autun. At the same time was celebrated the thirteenth centenary of the bestowal of the pallium on the Bishops of Autun by St. Gregory the Great, in consideration of the hospitality and assistance afforded by St. Syragius to St. Augustine and his companions on their way to England. At the close of July was celebrated at Paderborn the eleven hundredth anniversary of the reception of Pope Leo III by Charlemagne. The historical importance of the event lay in the fact that at this meeting was evolved the scheme of the creation of the Holy Roman Empire and the consolidation of the temporal power of the papacy, a scheme which was carried into effect the following year (800), when Leo solemnly crowned Charles at Rome.

The French pilgrimage to the Holy See, which consisted of more than 1,500 persons, arrived in Rome in the middle of September. The pilgrims, who were nearly all workmen, were received in special audience by the Pope, in spite of his ill health. The ceremonies in connection with the great national pilgrimage of men to Lourdes opened at the Grotto on April 17, with 30,000 pilgrims in attendance.

Mgr. Jean Émile Fonteneau, Archbishop of Alby, died on March 31, aged seventy-four.

Germany.—The year 1899 was marked by a further amelioration of the social and political standing of the Catholics of the German Empire, due partly to a policy of tolerance inaugurated by the Emperor and partly to the possession in the Reichstag of the balance of power by the center or Catholic party, upon which the Emperor counted most strongly for assistance in developing his imperialistic programme. In return for support of the proposal for an increased naval force the Emperor in many ways made the position of Catholics more tolerable. The Jesuits, though still legally exiled, returned in large numbers without opposition. The Emperor, posing as the defender of Catholicity, extended during the year the protection of Germany to Catholic missions in China, and induced Mgr. Anglo, Vicar Apostolic of Southern Chan-Tung, to withdraw from the supervision of the French protectorate. As other indications of his good will toward the Catholics of the empire, the Kaiser made them extensive presents in the course of the year. In connection with his previous gift of the hallowed piece of ground on Mount Sion, known for centuries as "Our Lady's Rest," he defrayed the expenses of extensive explorations of the site, and contributed a considerable sum to the erection of a basilica there. This will be the fifth to be erected on the site, and will replace the ones successively destroyed in the fourth, eleventh, thirteenth, and sixteenth centuries. As another incident in the policy of conciliation, the Emperor in March presented a high altar to the Abbey Church of Maria Laach in the Rhineland. The abbey, which was for seven hundred years a home of the Benedictine friars, had been confiscated by the Government shortly after the Franco-Prussian War. It was restored to the order by the Emperor in 1892.

Two of the most ancient and important archiepiscopal sees in the empire, Cologne and Prague, were made vacant in 1899 by the deaths of Cardinals Krementz and Schönborn. The latter see is the only one in the world whose incumbent has the title of prince. It was filled in September by the appointment of Canon Skrbensky of Olnitz. In the matter of a successor to Cardinal Krementz, however, the Emperor was guilty of a

grave affront to the Catholics of the Cologne province. The cardinal died May 6, and the metropolitan chapter, in accordance with the German constitutional provision, within two weeks sent up three names on approval to Berlin. It was not, however, until five months afterward that the Kaiser signified his willingness to allow the election of an archbishop by the chapter to proceed. In the meantime the suffragan bishop, Dr. Schmitz, died also, leaving the archdiocese without a head. The practical inconvenience of it in a province with a Catholic population of 1,800,000, as well as the lack of courtesy shown, went far to remove the impression of toleration which the Kaiser earlier in the year had created.

Russia.—In spite of the disagreeable outcome of the efforts of the Russian Government to secure representation for the Holy See at the Peace Congress, the diplomatic relations between Rome and St. Petersburg were in 1899 placed upon a footing securer than any they had occupied since the beginning of the century. It had been the hope of both the Czar and the Vatican since the coronation of Nicholas III, in 1894, to establish a cordial diplomatic understanding between the two courts, and when the programme of the conference was presented to the Pope in January by the Russian ambassador, it was felt that the establishment of a papal nunciature in St. Petersburg might be looked for in the near future. The incident was especially significant in view of the fact that the entire plan of the conference, including the choice of The Hague as meeting place, was formulated by the Pope, and by him sent to the Czar in 1894 with the proposal that a general invitation to the conference be issued. The exclusion of the Pope from the congress, however, effectually postponed the project of a papal nunciature at the Russian capital, although it did not affect the accord between it and the Vatican.

Italy.—No improvement marked the relations of the Vatican to the Quirinal in 1899, they being made worse, if possible, by Italy's success in preventing papal representation at The Hague. For the first time since their institution the civic and public celebrations of the beginning of the jubilee year were dispensed with, the Pope remaining practically a prisoner in the Vatican. In a circular letter issued March 28 the Roman vicariate prohibited the Italian clergy and laity from introducing into the Church any kind of flags except such as belonged to ecclesiastical confraternities and such as had been blessed, and in other ways the general intent of the Vatican to ignore the Quirinal as a legitimate government was made manifest. On Oct. 28 the Osservatore Romano was suppressed by the Italian Government for publishing an article discussing the claims of the Vatican to the sovereignty of the papal states.

Belgium.—On Aug. 19 was celebrated the five hundredth anniversary of the crowning of Our Lady of Antwerp. The ceremony, which has been performed annually since 1399, consisted of a solemn procession through the streets of 74 guilds and societies, followed by the statue of the Protectress of Antwerp. The statue before being carried through the streets was solemnly crowned in the cathedral by Cardinal Goossens, assisted by the Archbishop of Paris. The ceremonies are arranged by a guild called the masters of the chapel, organized in 1472, which provides the crown used in the coronation, which in this instance cost \$50,000.

Cardinal Goossens, Archbishop of Mechlin, on March 10 presented to the Pope the sum of £4,000, the first installment of the subscription

opened in Belgium by the Catholic press for the Pope.

Canada.—At a consistory held at the Vatican on June 29 Mgr. Diomedea Falconio, O. S. F., bishop of the united sees of Aceranza e Matera in the Basilicata, was appointed first regular apostolic delegate to Canada. Other Canadian ecclesiastical appointments were that of Right Rev. Denis O'Connor, Bishop of London, to be Archbishop of Toronto, and of Right Rev. Fergus P. McEvoy to be Bishop of London.

Portugal.—The nucleus of a pontifical Portuguese college in Rome was formed in 1899 by the arriving in the Eternal City of a few youths from Portugal to begin their studies for the priesthood under the direction of the Propaganda. The start was given to the work by the donation offered by a Portuguese gentleman in Rome, whose efforts were seconded by contributions from the bishops of Portugal. The inauguration of the college marked a new era in the relations of Portugal and the Holy See, since for eight years only one Portuguese bishop had made a visit *ad limina*, and while duly accredited papal nuncios resided at Oporto, no representation of the Portuguese clergy existed at the Vatican.

Mgr. Sousa Barroso, Bishop of St. Thomas, was appointed Bishop of Oporto in January.

Mexico.—Archbishop Averardi, who early in the year was appointed visitor apostolic to Mexico, was received with scant courtesy by the Mexican bishops, so scant that the distinguished clergyman returned at once to the Holy See. The hostility manifested by the clergy was not against the archbishop himself, but against the reforms which the Pope was known to favor and which his delegate was suspected of being sent to introduce. In all Mexico, with a Catholic population of 13,500,000, there are only 27 episcopal sees, and of these 6 were created by Pius IX and 8 by Leo XIII. The erection of additional sees was a reform which Mgr. Averardi was believed to favor, and this was the principal cause of the hostility to him. The objection to new sees came not so much from the bishops themselves as from the cathedral chapters, which in the majority of instances were exceedingly rich and powerful and reluctant to lose either revenue or authority.

South America.—The most important event for a decade to the South American hierarchy was the convocation at Rome by request of the Pope of the bishops of Latin America. The Congress met in June, and rose July 10. Its work was mainly the unification of ecclesiastical discipline in Latin America, and it was successful in formulating uniform conventions for Mexico, Central and South America. Fifty-three archbishops and bishops were present.

The Pope in September addressed an apostolic letter to the archbishops and bishops of Brazil on the subject of the Catholic revival in that country. In the beginning of the letter his Holiness referred to the many causes of consolation which he found in the revival: and next proceeded to deal with the various measures necessary or desirable for a greater revival. Such he held to be the establishment of seminaries similar to those existing in Europe; the encouragement of the Catholic press; the participation of Catholics in public life; and the furnishing of the ecclesiastical organization with the means required for its due working.

Missionary Countries.—President Kruger of the South African Republic on Aug. 22 took the first step in the history of the country looking toward the removal of the civil disabilities

of Catholics in the Transvaal. Under existing conditions no Catholic, though otherwise qualified for the franchise, could vote, hold office, or receive state employment. In his message to the first (or higher) Volksraad the President made a strong appeal for the removal of these disabilities, urging the Raad, as a test of eligibility, in Article XXXI of the Concept Grondwet, or state Constitution, to substitute for the word "Protestant" the clause "those who believe in the revelation of God through his Word in the Bible." Action on the proposed measure, which would have the effect of extending the franchise to Jews also, was postponed by the Raad for a year.

South Africa in 1899 contained two vicariates and two prefectures apostolic, the vicariates of Natal and the Orange Free State and the prefectures of Basutoland and the Transvaal. There were in 1899 10,000 Catholics in Natal, 5,000 in the Orange Free State, 6,000 in Basutoland, and 8,000 in the Transvaal.

The Nestorians of Asia Minor, who for years were vacillating between the Greek Church and the Catholic, in May turned to the latter in the number of 80,000 at Van, where two French missionaries had taken up their residence.

The Japanese Government in 1899 passed a law recognizing the Christian religion as one of the state organizations. The immediate effect of the law was to improve the status not only of the missionaries in the country, but also of the 125,000 Japanese who had embraced Christianity, of whom 53,000 were Catholics, 48,000 of various Protestant denominations, and the remainder attached to the Greek Church.

The principal missions of the Catholic Church are carried on under the direction of the great French Société des Missions Étrangères, which has a practical monopoly of this work in China, Japan, Tibet, Cambodia, Siam, Burmah, southern India, and the East Indies. The annual report of the society showed 32 bishops and 1,600 priests engaged in the work, 40 seminaries, and 2,985 schools. Their census showed a Catholic population of 1,200,000 in the countries above mentioned, of whom nearly 200,000 had been added in 1899. The feature of the work to which special attention was directed was the preparation and ordination of native priests, of whom there were 584 in 1899.

The Franciscan Fathers who have charge of the missions in Palestine, Syria, Asia Minor, Egypt, and Cyprus had in 1899 450 priests at work in the province and a Catholic population of 63,000. The friars educated 4,000 scholars in 1899 in the ordinary secular branches. In connection with the missionary work in the Holy Land, the Franciscans in 1897 decided to erect a college on Mount St. Sepulchre, near Washington, where postulants would be trained especially for mission service to carry out the four objects of the Franciscan rule in Palestine, which are the propagation of faith, the preservation of the sacred shrines, the civilization and education of the natives to a Christian and social life, and the protection and accommodation of pilgrims. The college and monastery were solemnly dedicated Sept. 17, 1899, by Mgr. Martinelli, the apostolic delegate. The church which was built in connection with the monastery, is of novel form, being shaped like a Greek cross.

ROUMANIA, a monarchy in eastern Europe. The legislative power is vested in a Senate of 120 members, elected for eight years by two classes of property holders, except 2 members for the universities, 8 bishops, and the heir to the throne, and a Chamber of Deputies, consist-

ing of 183 members elected for four years by all the taxpayers, divided into three classes. The reigning King is Carol I, born April 20, 1839, a son of Prince Karl of Hohenzollern-Sigmaringen, elected Domn of Roumania in 1866 after the abdication of Prince Alexander Cuza. Roumania was proclaimed a kingdom on March 26, 1881. The Cabinet at the beginning of 1899, constituted on April 12, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs, Demeter Sturdza; Minister of the Interior, M. Pherekyde; Minister of Agriculture, Industry, Commerce, and Domains, A. Stolojan; Minister of Finance, G. D. Pallade, who succeeded G. M. Cantacuzene in 1898; Minister of War, Gen. A. Berendel; Minister of Public Instruction and Worship, Spiro Haret; Minister of Justice, C. J. Stoicesco, succeeding in 1898 Alexander G. Djuvara; Minister of Public Works, I. I. C. Bratiano.

Area and Population.—The area of the kingdom is 48,307 square miles, with a population in 1894 of 5,417,249. Bucharest, the capital, had 232,009 inhabitants. The number of marriages in 1898 was 43,611; of births, 214,980; of deaths, 155,417; excess of births, 59,563.

Finances.—In 1898 the revenue was 210,591,020 lei or francs, and the expenditure 217,335,486 lei. For 1899 the revenue was estimated at 222,095,000 lei, and expenditure at the same figure. For 1900 the revenue is estimated at 228,376,000 lei, and the expenditure at 228,375,000 lei. Of the revenue for 1900 direct taxes are expected to produce 34,110,000 lei; indirect taxes, 70,290,000 lei; state monopolies, 53,965,000 lei; the Ministry of Agriculture, 24,718,000 lei; the Ministry of Public Works, 16,492,000 lei; the Ministry of the Interior, 11,107,000 lei; the Ministry of Finance, 4,590,000 lei; the Ministry of War, 803,000 lei; the Ministry of Instruction and Worship, 229,000 lei; the Ministry of Foreign Affairs, 236,000 lei; the Ministry of Justice, 380,000 lei; other sources, 11,456,000 lei. Of the expenditures for 1900, the public debt absorbs 85,757,480 lei; expenses of the Council of Ministers, 71,300 lei; the Ministry of War, 45,930,325 lei; the Ministry of Finance, 27,421,167 lei; the Ministry of Instruction and Worship, 28,368,709 lei; the Ministry of the Interior, 18,507,465 lei; the Ministry of Public Works, 5,682,070 lei; the Ministry of Justice, 6,672,676 lei; the Ministry of Agriculture, 6,939,490 lei; the Ministry of Foreign Affairs, 1,796,000 lei; supplementary credits, 1,227,658 lei. The budget for 1900 makes the revenue 228,805,000 lei and the expenditure the same, including 1,287,118 lei for extraordinary and supplementary credits.

The public debt in 1898 amounted to 1,224,849,525 lei, more than half of which was contracted for railroad construction, and the rest to purchase lands for emancipated serfs and to cover deficits. On April 1, 1899, the debt stood at 1,294,073,029 lei, requiring the annual payment of 76,289,134 lei.

The Army and Navy.—The army is formed of 34 regiments of infantry, 6 battalions of rifles, 6 regiments of hussars, 11 of light cavalry, 12 regiments of field artillery, 2 regiments of siege artillery, 2 regiments of engineers, 5 companies of artificers, 4 squadrons of train, a hospital corps, and 2 companies and 4 squadrons of gendarmes. The peace strength is 3,478 officers, 448 civil employees, and 56,489 rank and file, with 12,675 horses and 390 field guns. The territorial army, in which all able-bodied Roumanians are enrolled who are not drawn for service in the standing army, has a strength of 75,000 men. The active army is not composed entirely of conscripts, but is kept up to its legal strength by enlistment of volunteers and of soldiers whose time has expired.

The principal vessel in the fleet is the English-built belted cruiser Elisabetha, of 1,320 tons, carrying 4 6-inch guns. There are besides 7 gunboats for the Danube, a dispatch vessel, a training ship, and 6 first-class and 2 second-class torpedo boats.

Commerce and Production.—The production of wheat in 1898 was 20,600,100 hectolitres, against 12,844,300 in 1897; of barley, 10,450,800 hectolitres, against 7,479,700; of rye, 2,688,335 hectolitres, against 2,394,300; of oats, 6,135,300 hectolitres, against 3,471,900. The production of maize in 1897 was 28,112,300 hectolitres; of wine, 249,630 hectolitres; of prunes, 465,840 hectolitres; of tobacco, 37,900 quintals; of colza seed, 475,780 hectolitres; of flaxseed, 238,135 hectolitres; of hemp fiber, 20,840 quintals; of hay, 13,052,382 quintals. There were 670,909 horses, 2,138,315 cattle, 6,847,825 sheep, and 1,079,312 hogs in 1897. The mineral resources of Roumania are considerable, and since the operation of mines by foreign capitalists was permitted by the law of 1895 various mines have been opened. Coal is mined, and petroleum is obtained, though its quality is poor. The salt mines are operated by the Government with convict labor. The total value of imports in 1898 was 389,908,439 lei, and of exports 283,287,869 lei. The imports of cereals were valued at 6,500,000, and exports at 241,400,000 lei; imports of fruit, vegetables, and groceries at 28,700,000, and exports at 10,200,000 lei; imports of beverages at 1,100,000, and exports at 600,000 lei; imports of animals and animal food products at 7,500,000, and exports at 11,400,000 lei; imports of fuel at 11,800,000, and exports at 3,800,000 lei; imports of minerals, glass, and pottery at 11,200,000, and exports at 800,000 lei; imports of metals and metal goods at 91,700,000, and exports at 2,500,000 lei; imports of hides, leather, and leather goods at 16,900,000, and exports at 1,100,000 lei; imports of timber and wood manufactures at 5,300,000, and exports at 5,000,000 lei; imports of textiles, raw or manufactured, at 149,700,000, and exports at 2,700,000 lei; imports of paper at 6,600,000, and exports at 200,000 lei; imports of drugs and chemicals at 27,200,000, and exports at 400,000 lei; imports of fats and oils at 9,400,000 lei; imports of all other articles at 16,800,000, and exports at 3,200,000 lei. The commerce, valued in lei, was distributed among different countries as follows:

COUNTRIES.	Imports.	Exports.
Austria-Hungary	109,097,000	85,965,000
Germany	110,535,000	12,545,000
Great Britain	76,144,000	37,459,000
Belgium	14,077,000	65,580,000
Turkey and Bulgaria	18,586,000	17,562,000
France	25,738,000	7,876,000
Italy	14,150,000	17,749,000
Russia	7,824,000	4,968,000
Switzerland	4,680,000	3,000
Greece	2,166,000	918,000
All other countries	6,466,000	5,408,000
Total	389,908,000	283,287,869

Navigation.—The number of vessels entered at Roumanian ports in the course of 1898 was 39,115, of 11,144,101 tons; cleared, 39,262, of 11,325,716 tons.

The merchant marine in 1898 consisted of 46 steamers, of 12,087 tons, and 405 sailing ships and boats, of 54,660 tons.

Communications.—The railroads, which are the property of the Government, had in 1899 a total length of 1,893 miles, and 131 miles additional were being constructed and 932 miles surveyed.

The post office in 1898 transmitted 19,344,470 letters, 11,150,715 postal cards, and 37,577,317 newspapers and circulars. The receipts were 6,679,245 lei; expenses of both postal and telegraph services, 8,276,183 lei. The telegraph receipts were 2,975,378 lei. The length of telegraph lines in 1898 was 4,254 miles, with 10,942 miles of wire. The number of dispatches in 1898 was 2,586,534, of which 1,799,262 were internal, 600,113 foreign, 107,829 service, and 79,330 transit dispatches.

Politics and Legislation.—The rejection by the Senate of a bill passed by the Chamber for the creation of an agricultural bank to enable the land to be allotted among the peasantry on easy terms of payment caused a peasant revolt in the district between the Olt and the Danube. Two regiments that were sent to the scene of the disturbances were overpowered and compelled to beat a retreat in the beginning of February. The encounter took place in the neighborhood of Krajova. Other troops were concentrated at Bucharest and dispatched to suppress the rising. The insurgents were imbued with Socialist ideas, and conceived the notion that the Czar of Russia was ready to intervene so as to secure them the land to which they felt entitled. Socialism spread rapidly in the country after the last municipal elections, when the Liberals coalesced in many places with the Socialists, and thus secured a large majority over the Conservatives. The agrarian uprising was suppressed by energetic military measures. The troops that were called out to disperse the assembled peasants and members of Socialist associations met with considerable resistance in numerous places. The rigorous action of the authorities caused the movement to extend rapidly among the country people, who were already embittered by distress that they attributed to governmental injustice and denial of their rights. When they sent deputations to the Government in Bucharest to complain of the action of the officials in the country districts the members of the deputations were taken into custody, and only released after being searched and the papers found upon them being confiscated. Some of the newspapers of the capital denounced this proceeding, which strengthened the feeling among the peasants that only by fighting could they gain their rights. After the military quelled the revolt numbers of persons were arrested. The Minister of the Interior ascribed the Socialist movement among the peasantry to the activity of foreign agitators, and about 30 foreigners were marked for expulsion. In villages inhabited by Roman Catholic Hungarians the priests restrained the people from joining the Socialist associations. In other districts the village mayors and schoolmasters took the lead in founding the associations. The Greek Orthodox clergy also in numerous places took part in the agitation. The rules of these agrarian societies contained a provision that the members should jointly defray the expenses of litigation between any of them and their landlords and their trial whenever any of them were prosecuted by the authorities. Another provision stipulated for the intervention of the societies with the central and communal authorities on behalf of the peasants through members of Parliament and communal councilors belonging to the Socialist party, also by means of petitions, public meetings, and other courses authorized by law. The primary aims were to secure a reduction of taxation, the modification of the form of agricultural contracts between laborers and farmers, and equal justice for the poor as for the rich.

In the beginning of April the parliamentary Opposition began a policy of obstruction, and would allow no bill to be passed or proceeded with except the one providing for the annual military contingent. The ground for the attack, which was directed against the Prime Minister, was that M. Sturdza was believed to have made a secret arrangement with Baron Banffy, the late head of the Hungarian Government, having in view the suppression of the Roumanian national movement in Hungary. The assailants of the Premier carried on a fierce agitation out of doors and convened a mass meeting, which ended in a collision with the troops and the killing of 2 persons and wounding of 11 others by bayonet thrusts. These incidents brought about a ministerial crisis, which ended in the formation of a new Cabinet on April 23, composed as follows: Prime Minister and Minister of the Interior, George Cantacuzene; Minister of Finance, Gen. G. Mano; Minister of War, Gen. Jacob Lahovary; Minister of Education, Take Jonesco; Minister of Justice, C. G. Dissesco; Minister of Domains, N. Fleva; Minister of Foreign Affairs, J. N. Lahovary; Minister of Public Works, Dr. C. I. Istrati.

An extraordinary session of Parliament, convoked for the passing of several urgent measures, began on June 24. The Chamber voted to increase the spirit duties 50 per cent., which was expected to yield a revenue of 20,000,000 lei. Proposals for new sources of revenue were kept back for the autumn session. The Government decided to put into force a law passed in 1895 respecting mines, which the Sturdza ministry refused to carry out. The embarrassments of the landlords and the privations of the peasantry were matters that many representatives of the people were anxious to relieve and were made the study of the ministers, as well as measures for providing revenue and preserving the credit of the state. In July the agricultural laborers in several districts went on a strike like the one that caused trouble in Hungary two years before. They refused to carry out the stipulations of their agricultural contracts in regard to reaping unless the conditions of the contracts were changed, and left the ripe harvest to spoil. In the Jassy district they set fire to the crops.

The ordinary session of Parliament was opened on Nov. 27. The principal measure in the Government programme was a comprehensive scheme of taxation reform designed to distribute the burdens more equally among all classes of the population.

The European Commission of the Danube.—The international commission charged with removing the sand bars and keeping open for navigation the mouths of the Danube, created by the Treaty of Paris in 1856, was endowed with larger powers by the Treaty of Berlin in 1878, and by a treaty concluded in London in 1883 these were prolonged till April 24, 1894. The commission, composed of delegates of Germany, Austria-Hungary, France, Great Britain, Italy, Roumania, Russia, and Turkey, exercises police powers and issues regulations that have the force of law on the Danube below Braila. The receipts in 1898 amounted to 3,239,722 francs, of which 2,040,502 francs were derived from tolls, 61,266 francs from various sources, 805,784 francs surplus from the preceding year, and 332,170 francs the value of material and collectable assets. The expenditures were 2,650,727 francs, including 874,336 francs for administration, 500,457 francs for technical services, 202,023 francs for various expenses, 782,929 francs for special purposes, and 290,982 francs for material and current liabilities, leaving a sur-

plus of 588,995 francs to be carried over. The pension and reserve funds amounted in 1897 to 2,303,545 francs. The exportation of wheat through the Danube in 1898 was 516,819 tons; of rye, 141,089 tons; of maize, 946,359 tons; of barley, 366,142 tons. The number of vessels, exclusive of packet steamers, that passed out of the Sulina mouth of the Danube in 1898 was 1,419, of 1,476,119 tons, comprising 446 English steamers, of 694,773 tons; 143 Greek steamers, of 192,715 tons, and 80 Greek sailing vessels, of 20,728 tons; 142 Austrian steamers, of 181,099 tons; 81 Italian steamers, of 103,636 tons, and 4 Italian sailing vessels, of 1,850 tons; 40 Turkish steamers, of 27,384 tons, and 202 Turkish sailing vessels, of 35,489 tons; 119 Russian steamers, of 55,912 tons, and 15 Russian sailing vessels, of 4,662 tons; 38 Roumanian steamers, of 46,486 tons, and 11 Roumanian sailing vessels, of 3,584 tons; 34 French steamers, of 42,880 tons; 27 German steamers, of 32,665 tons; 22 steamers, of 28,012 tons, and 15 sailing vessels of other nationalities, of 3,324 tons.

RUSSIA, an empire in northern Europe and Asia. The throne is hereditary in the dynasty of Romanoff-Holstein-Gottorp. The system of government is an absolute monarchy, in which the legislative, executive, and judicial powers are united in the Emperor, or Czar, who is assisted by a Cabinet of Ministers, each of whom has charge of an executive department; by a Council of State, which examines and passes upon projects of law submitted by the ministers; by a Ruling Senate, which watches over the general administration and superintends the judiciary; and by a Holy Synod, which directs ecclesiastical affairs. The Czar is the head of the Russian Church, which in its doctrines and ritual is identical with the Orthodox Greek, maintaining the relations of a sister Church with the patriarchates of Constantinople, Jerusalem, Antioch, and Alexandria. The reigning Emperor of All the Russias is Nicholas II, born May 18, 1868, who succeeded his father, Alexander III, Nov. 1, 1894. The heir presumptive is the Grand-Duke George, brother of the Czar, born May 9, 1871. The Committee of Ministers at the beginning of 1899 was as follows: President, J. N. Durnovo; Minister of the Imperial House and Imperial Domains, Gen. W. Freederikz, appointed in 1898; Assistant Minister of Foreign Affairs, Count Michael Muravieff; Procurator General of the Holy Synod, K. P. Pobedonostseff; Minister of the Interior, J. L. Goremykin; Minister of Public Instruction, M. Bogolepoff, appointed in 1898; Minister of War, Gen. Kuropatkin, appointed in 1898; Minister of Marine, Vice-Admiral Tyrtoff; Minister of Agriculture and State Domains, A. S. Yermoloff; Minister of Justice, N. V. Muravieff; Minister of Finance, S. J. Witte; Minister of Railroads and Communications, Prince Hilko; Comptroller General, T. J. Filippoff; Minister and Secretary of State for Finland, Gen. Bobrikoff. The Grand-Dukes Vladimir, Alexis, and Michael are members of the committee; also M. Solsky, M. N. Ostrovsky, and M. Frisch, presiding over the respective departments of state economy, legislation, and civil and ecclesiastical affairs in the Council of State, and Gen. Count Pratassoff-Bakhmetieff.

Area and Population.—The area of the Russian provinces is 1,902,202 square miles, with a population on Feb. 9, 1897, of 94,215,415; the area of Poland, 49,159 square miles, with 9,455,943 inhabitants; the area of Finland, 144,255 square miles, with a population estimated at 2,563,000; the area of the Caucasus, 180,843 square miles, with a population of 9,248,695; the area of Siberia, 4,833,496 square miles, with a population

of 5,727,000; the area of the Transcaspien territory and central Asia, 1,548,825 square miles, with a population of 7,721,084; total land area of the Russian Empire, 8,660,394 square miles; total population, 128,931,827. The average number of females to 100 males is 102.8 in the Russian provinces, 98.6 in Poland, 102.2 in Finland, 89.5 in the Caucasus, 93.7 in Siberia, 89.4 on the steppes, and 83 in Transcaspien and Turkestan. In the empire as a whole the number of females is almost exactly equal to that of males. The Jews of Russia live in the western and south-western provinces of Russia, in Poland, and in the cities of the south. There are about 3,500,000 in all. The population of St. Petersburg in 1897 was 1,267,023; of Moscow, 1,035,664; of Warsaw, 638,208; of Odessa, 405,041; of Lodz, 315,209; of Riga, 282,943; of Kieff, 247,432; of Kharkoff, 174,846. The number of persons who entered Russia during 1896 was 2,725,645; the number who departed, 2,743,418. The net immigration of foreigners was 6,906; the net emigration of Russians was 27,084.

Finances.—The ordinary revenue for 1897 was 1,416,386,096 paper rubles, and the ordinary expenditures amounted to 1,299,649,313 rubles, leaving a surplus of 116,736,783 rubles. The extraordinary revenue amounted to 42,591,539 rubles, and the extraordinary expenditure to 194,948,911 rubles. Of the ordinary receipts 39,243,000 rubles came from the direct taxes on land and forests, 40,617,000 rubles from trade licenses, 15,567,000 rubles from a 5-per-cent. tax on income from capital, 280,129,000 rubles from the spirit duties, 35,294,000 rubles from tobacco duties, 55,476,000 rubles from the excise tax on sugar, 28,894,000 rubles from naphtha, matches, and other excise taxes, 195,615,000 rubles from customs duties, 31,758,000 rubles from stamp duties, 20,254,000 rubles from transfer duties, 23,155,000 rubles from passports, railroad taxes, etc., 3,456,000 rubles from mining monopolies, 17,550,000 rubles from the mint, 25,850,000 rubles from the post office, 15,729,000 rubles from telegraphs, 52,478,000 rubles from the sale of spirits, 15,745,000 rubles from rent from domains, 661,000 rubles from sales of domains, 37,704,000 rubles from state forests, 10,834,000 rubles from Crown mines, 277,846,000 rubles from state railroads, 25,050,000 rubles from invested capital and banking operations, 2,657,000 rubles from private railroads, 37,544,000 rubles from serfs for redemption of land, 50,975,000 rubles from Crown peasants, 12,631,000 rubles from railroad debts, 29,802,000 rubles from Crown debts, 16,380,000 rubles from funds for aid to municipalities, 2,358,000 rubles from military contributions, and 8,164,000 rubles from various sources. The ordinary expenditures consisted of 258,558,000 rubles for the state debt, including 102,456,000 rubles for railroad debts; 2,729,000 rubles for the superior governing bodies; 19,806,000 rubles for the Holy Synod; 12,968,000 rubles for the Ministry of the Imperial House; 4,930,000 rubles for the Ministry of Foreign Affairs; 293,790,000 rubles for the Ministry of War, including 23,661,000 rubles for the reform of armaments and commissariat stores and 5,105,000 rubles for the Transcaspien Railroad; 85,275,000 rubles for the navy; 204,324,000 rubles for the Ministry of Finance, including 3,711,000 rubles for loans to railroad companies; 33,172,000 rubles for the Ministry of Agriculture and State Domains; 80,458,000 rubles for the Ministry of the Interior; 26,476,000 rubles for the Ministry of Public Instruction; 226,861,000 rubles for the Ministry of Ways and Communications, including 168,802,000 rubles for the operation of state railroads and 25,300,000

rubles for new feeding lines and improvements; 41,832,000 rubles for the Ministry of Justice; 6,868,000 rubles for the Comptroller General's office, including 3,309,000 rubles for the control of railroads; and 1,601,000 rubles for the Government studs. Of the extraordinary revenue for 1897 the sum of 32,339,000 rubles came from state loans, 7,688,000 rubles from perpetual deposits in the Bank of Russia, 238,000 rubles from debts paid by railroads, 13,000 rubles from repayments, and 2,314,000 rubles from various sources. Of the extraordinary disbursements 129,194,000 rubles were for railroad building and rolling stock, 1,476,000 rubles for the purchase of railroads, and 64,279,000 rubles for the conversion and redemption of state debt. The surplus of ordinary revenue over expenditure for 1897 was 107,857,350 rubles, but in the extraordinary budget there was a deficiency of 167,105,377 rubles, giving a deficit of 59,248,027 rubles; but for the period of five years ending with 1897 the accounts show a surplus in the total receipts, ordinary and extraordinary, over the total disbursements of 181,066,110 rubles. The budget estimates for 1898 made the ordinary revenue 1,364,458,217 rubles, and the extraordinary revenue 3,300,000 rubles from deposits in the bank and 106,291,709 rubles raised to meet extraordinary expenditure, making the total receipts 1,474,049,923 rubles. The ordinary expenditure for 1898 was estimated at 1,350,085,213 rubles, and the extraordinary expenditure at 123,964,710 rubles; total expenditure, 1,740,149,923 rubles, balancing the estimate of revenue. The budget estimate of the ordinary revenue for 1899 is 1,469,128,203 rubles, of which 113,554,631 rubles were set down to direct taxes, against 100,577,816 rubles in 1898; 667,182,457 rubles to indirect taxes, against 623,679,874 rubles; 52,875,800 rubles to state monopolies, against 48,529,100 rubles; 92,141,000 rubles to the sale of spirits by the Government, against 85,461,000 rubles; 396,307,398 rubles to Government railroads and domains, against 370,127,108 rubles; 902,302 rubles to sales of domains, against 593,339 rubles; 40,433,597 rubles to redemption of land by Crown peasants, against 43,181,586 rubles; 37,260,403 rubles to redemption of land by liberated serfs, against 37,376,714 rubles; 58,879,906 rubles to the repayment of railroad and other loans, against 57,318,227 rubles; 5,643,596 rubles to miscellaneous receipts, against 5,163,453 rubles; and 3,947,113 rubles from war contributions, against 2,450,000 rubles. The extraordinary revenue for 1899 was estimated at 4,000,000 rubles interest on perpetual deposits in the bank and 98,604,443 rubles raised to meet extraordinary expenditure, making the total receipts 1,571,732,646 rubles. The total expenditures for 1899 were estimated at 1,462,659,233 rubles for ordinary and 109,073,413 rubles for extraordinary purposes, together balancing the estimate of revenue from all sources. The ordinary expenditure for the public debt for 1899 is set down as 228,549,279 rubles, against 220,376,536 rubles in 1898; for railroad obligations, 51,688,807 rubles, against 51,716,196 rubles; for higher institutions of state, 2,880,621 rubles, against 2,612,842 rubles; for the Holy Synod, 21,199,144 rubles, against 20,374,941 rubles; for the Ministry of the Imperial House, 12,637,506 rubles, against 12,597,492 rubles; for the Ministry of Foreign Affairs, 5,314,556 rubles, against 4,802,176 rubles; for the Ministry of War, 323,791,710 rubles, against 288,808,664 rubles; for the Ministry of Marine, 83,065,000 rubles, against 67,050,000 rubles; for the Ministry of Finance, 233,381,888 rubles, against 211,118,038 rubles; for the Ministry of Agriculture and State Domains, 36,980,-

741 rubles, against 35,737,983 rubles; for the Ministry of the Interior, 82,145,703 rubles, against 80,175,211 rubles; for the Ministry of Public Instruction, 28,761,171 rubles, against 26,440,843 rubles; for the Ministry of Ways and Communications, 288,074,712 rubles, against 264,677,232 rubles; for the Ministry of Justice, 44,944,651 rubles, against 42,733,274 rubles; for the state control, 7,459,627 rubles, against 7,178,935 rubles; for the state studs, 1,784,117 rubles, against 1,614,850 rubles; for unforeseen and war expenses, 20,000,000 rubles, against 12,000,000 rubles.

The state debt on Jan. 1, 1898, amounted to 2,133,605,827 rubles of gold obligations and 3,141,472,152 rubles in paper, the total being 6,341,880,893 paper rubles, taking the gold ruble at the fixed legal rate of 1.50 ruble in paper or silver, established since 1894. The gold debt consists of 332,830,375 rubles at 3 per cent., 99,421,875 rubles at 3½ per cent., 1,501,787,625 rubles at 4 per cent., 109,707,500 rubles at 4½ per cent., 26,517,860 rubles at 5 per cent., and 63,340,592 rubles of 3- and 5-per-cent. treasury bonds. The currency debt consists of 78,000,000 rubles borrowed at 3 per cent., 104,331,000 rubles at 3.79 per cent., 113,120,874 rubles at 4 per cent., 248,180,000 rubles at 4½ per cent., 152,060,000 rubles at 5 per cent., 35,712,565 rubles paying various rates, 2,131,487,389 rubles of 4-per-cent., 42,157,538 rubles of 5-per-cent., and 38,488,362 rubles of 6-per-cent. treasury bonds, 22,934,404 rubles paying various rates, and 175,000,000 rubles of uncovered paper currency. There was an increase during the year of 15,109,836 rubles of gold bonds of railroads assumed by the Government, and an emission of 80,000,000 rubles of internal currency bonds; on the other hand, the paper currency was covered to the extent of 446,281,634 rubles. In the course of ten years the state debt payable in gold had been increased by 762,291,505 rubles, while the currency debt was diminished by 65,500,832 rubles, and annuities were diminished by 15,838,627 rubles reckoned in paper. The net increase in the capital of the debt for the period was 1,078,881,425 rubles in currency valuation, but the annual interest charge was increased only 3,500,000 rubles. The money in the treasury at the beginning of 1898 was 562,678,265 rubles. The payments for interest and redemption of the debt in 1899, reduced to paper valuation, were 60,045,559 rubles on external loans, 6,597,397 rubles on external bonds, 34,591,956 rubles for internal loans, 94,984,450 rubles for internal bonds, 20,737,028 rubles for obligations of state railroads, 51,688,807 rubles for obligations of guaranteed railroads to be repaid by them, and 1,592,889 rubles of payments of coupons overdue and banking expenses; total, 270,238,086 rubles. The debts were offset to the extent of 2,403,644,873 rubles in currency by sums owed to the Government, including 1,531,392,928 rubles due from peasants for redemption of land, 91,518,196 rubles due from local treasuries, 83,105,961 rubles in gold from the nobles' land bank, 86,568,697 rubles in gold and 123,832,570 in paper from railroads, 175,626,072 rubles in gold of military contributions due from Turkey, 290,108 rubles in paper due from Khiva, and 6,086,346 rubles in gold and 129,490,458 in paper from other debtors. The various funds for famine relief, pensions, and military, agricultural, benevolent, scientific, and other objects amounted on Jan. 1, 1898, to 314,994,844 rubles.

The Army.—About 275,000 young men who reach the age of twenty every year are drawn for service in the active army, remaining with the colors about four years of the legal period of five years. Of the remaining 600,000 who are capable of bear-

arms, part are enrolled in the reserve of the active army and the rest in the zapas, or second reserve. There were 987,917 young men who reached the military age in 1896, and of these 77,542 did not come up to the physical standard, while 30,585 failed to appear. The number taken into the active army was 275,247; the number enrolled in the reserve, 212,209. There were, moreover, 3,394 Caucasian recruits inscribed in the regular army. The reserves are required to drill for six weeks twice a year. The infantry troops are armed with a new small-bore rifle with a magazine holding five cartridges. The dragoons carry a carbine of the same caliber. The artillery have steel breech-loading ordnance, the heavy guns carrying 4,150 yards, the light guns 4,480 yards. The peace strength of the Russian army is estimated at 36,000 officers and 880,000 men; the war strength at 63,000 officers and 3,440,000 men.

The Navy.—The Russian fleet in the Baltic has 6 first-class battle ships, 3 of the second, and 5 of the third class, 11 coast-defense vessels, 9 first-class, 3 second-class, and 4 third-class cruisers, 30 gunboats, and 74 first-class torpedo boats, and it will soon be strengthened by the addition of 5 first-class battle ships, 1 coast-defense vessel, 8 first-class and 4 second-class cruisers, 2 gunboats, and 24 first-class torpedo boats. In the Black Sea fleet are 5 first-class battle ships, 2 of the second class, 2 monitors, 1 third-class cruiser, 8 gunboats, and 25 first-class torpedo boats, and there are building 1 first-class and 1 second-class battle ship and 4 large torpedo craft. The *Oslabya* and *Peresvyet*, of 12,674 tons, launched in 1898, represent the new type of battle ships, excelling in gun power the *Petrovavlovsk*, *Poltava*, and *Sevastopol*, of 10,960 tons, although these carry 12-inch guns coupled in their fore and aft turrets, while the newer vessels have 10-inch Oushakoff guns, but a powerful quick-firing armament, consisting of 8 6-inch, 6 4.7-inch, and 30 smaller guns. They are plated with 94-inch armor on the sides and 9-inch armor on the turrets, all of Harveyized steel, and are provided with water-tube boilers of 12,000 horse power, giving a speed of 18 knots an hour. Two more of this class, the *Pobieda* and *Retvisan*, are in hand, one in the Government yards on the Neva and one in Philadelphia. A third is being constructed by a Russian engineering firm, and one in a new shipbuilding yard of the Russian Government. These are somewhat heavier than the first built. The latest development is the *Tsarevich*, of 13,100 tons, built in France. The *Kniaz Potemkin Tavrichesky*, of 12,480 tons, built at Nikolaieff for the Black Sea fleet, of the same class as the *Tri Sviatitelia*, or *Three Saints*, has 10 inches of side armor, and carries 4 12-inch breech-loading guns in armored turrets, with a secondary armament of 10 6-inch, 16 3-inch, and 30 small quick firers, yet is designed to steam 17 knots with engines of 10,600 horse power. The *Rostislav*, of 8,880 tons, launched in 1896, a sister to the *Sissoi Veliky*, but carrying 10-inch instead of 12-inch guns in the turrets and 8 6-inch and 26 small quick-firing guns, instead of 6 6-inch and 18 small ones, has been followed by another of the same class, having, like the others, 16 inches on the sides and engines of 8,500 horse power, capable of making 16 knots. The armored cruisers of the new Russian navy have been developed from the *Dmitri Donskoi*, of 5,700 tons, built in 1883, which carries 6 6-inch guns and a powerful quick-firing armament. The *Pamiat Azova*, of 6,000 tons, built in 1888, has a maximum speed of nearly 19 knots, and is armed with 2 8-inch and 13 6-inch breech-loading guns and 17 quick firers. The *Rurik*, built

in 1892, has a displacement of 10,933 tons, and is armed with 4 8-inch and 16 6-inch guns and 6 4.7-inch and 18 smaller quick firers, and furnished with engines of 13,250 horse power, capable of making 18 knots. Larger, faster, and more powerful yet is the *Rossia*, having a displacement of 12,130 tons, with from 5 to 8 inches of armor, having 3 engines of 18,000 horse power, capable of making 19½ knots, and carrying an armament of 4 8-inch and 24 6-inch guns and 6 4.7-inch and 30 smaller quick firers. Built larger still, to carry more terrific batteries, is the *Gromoboi*, of 12,336 tons, armed with 4 8-inch, 16 6-inch, 6 4.7-inch, and 50 small guns, all quick firers. The *Bayan* is a new cruiser of 7,800 tons, built in France. The *Diana*, *Pallada*, and *Aurora* are deck-protected cruisers of 6,500 tons, launched in 1898, having engines of 11,610 horse power, capable of steaming 20 knots, and armed with 6 6-inch, 6 4.7-inch, and 35 small quick-firing guns. The *Bogatyr*, *Waryag*, and *Askold*, of 6,500 tons, have been added to this class, and 3 more have been begun. The volunteer fleet, composed of merchant steamers that can readily be converted into cruisers, already numbers 15 vessels, which carry on the tea trade and other traffic between Odessa and China, and at the same time serve as transports for the conveyance of Russian troops to Vladivostok and Port Arthur.

The *Retvisan* has the entire hull amidships covered with armor instead of confining protection to a belt encircling the ship at the water line. This novelty of design is the result of the lessons of the Spanish war, in which much damage was wrought in the upper structures of ships. The plates taper from 9 inches at the water line to 6 inches above and 5 inches in the vicinity of the central battery. The protective deck slopes down to the water line. The turrets have 10 inches of armor. The ship is 374 feet long, 72 feet in the beam, drawing 25 feet of water, and with 16,000 horse power, will have bunkers for 2,000 tons of coal and a speed of 18 knots. The battery will consist of 4 12-inch guns in turrets, 12 6-inch quick-firing guns in a central battery, and as auxiliary armament 20 3-inch, 20 3-pounder, and 6 1-pounder quick firers.

The new shipbuilding programme adopted in 1898 involves the expenditure of 510,000,000 rubles in the course of seven years, of which 90,000,000 rubles were granted for construction in 1899. The programme includes 8 battle ships, 1 armored cruiser, 6 first-class protected cruisers, 10 3,000-ton cruisers, a mining ship of 6,000 tons, a torpedo transport, about 20 destroyers, and 30 torpedo boats. A number of vessels were ordered in France, Germany, and the United States. Four destroyers were built at St. Petersburg, 4 at Elbing, 5 at Havre, and 1 at Birkenhead. The *Kniaz Potemkin Tavrichesky* and *Tsarevich* are included in the new programme.

Commerce and Production.—The area of Russia in Europe is estimated at 1,098,507,780 acres, exclusive of the islands of Arkhangelsk and the pasture lands of the Kalmucks and Kirghiz Tartars, estimated at 40,925,060 acres. The Government owns 410,808,867 acres, including 139,397,498 acres of roads, waste land, etc. The domains of the imperial family have an extent of 19,890,835 acres. The remainder of the total area is divided among the peasants and landowners, the former having 373,310,496 acres, of which 35,545,735 acres are waste, and the latter 294,504,582 acres, comprising 80,063,271 acres of arable soil, 68,628,269 acres of orchards, meadows, and pasture, 110,697,486 acres of forests, and 35,115,566 acres of waste land. Of the total area, 287,969,552

acres are arable, 174,958,734 orchard, meadow, and grazing land, 425,520,714 forest, and 210,058,770 mountain, barren, roads, etc. In Poland 55 per cent. of the land is arable. In the western provinces 2,516,919 peasants redeemed with Government assistance 25,517,788 acres of land, valued at 162,508,868 rubles, the average size of the allotments being 10 acres, purchased at the average price to the peasants of 6 rubles 37 copecks per acre. In the rest of Russia, where the conditions of redemption were more onerous to the peasants, the number of individuals who redeemed their land was 6,641,836, the total area being 61,575,821 acres, the average allotment 9.4 acres, the average price 11 rubles 43 copecks per acre, the total value of the lands 704,018,004 rubles. By the transfer of the land to the peasants through the Government the state mortgage bank received back the loans made to the landlords, about 42 per cent. of the purchase money in the western provinces and 35 per cent. in the rest of Russia, and the remainder was paid over to the landlords to enable them to improve the estates remaining to them. Besides the former serfs, 109,791 leaseholders purchased their holdings, about 2,100,000 acres in total extent.

In European Russia 170,253,400 acres were cropped in 1896; in Poland, 10,284,650 acres; in northern Caucasia, 9,459,440 acres. The area reported from Siberia was 8,402,000 acres and from central Asia 2,495,800 acres; but these returns are far from complete. About 66 per cent. of the arable land was planted in central, 78 per cent. in southern, and 10 per cent. in northern and eastern Russia; in Astrachan, 8 per cent. The production of wheat in 1897 was 6,332,000 tons in European Russia, against 7,986,000 tons in 1896; in Poland, 473,000 tons in 1897, against 518,000 tons in 1896. The rye crop of Russia in Europe was 14,080,000 tons in 1897, against 17,392,000 tons in 1896; in Poland, 1,345,000 tons, compared with 1,534,000 in 1896. Of barley, 4,325,000 tons were raised in the Russian provinces and 340,000 tons in Poland in 1897; of oats, 7,757,000 tons in the Russian provinces and 590,000 tons in Poland; of potatoes, 36,277,000 tons in Russia and 2,950,000 tons in Poland. There were 8,358,000 acres planted to flax in 1897, yielding 290,000 tons of fiber and 645,000 tons of linseed; and under hemp there were 2,241,000 acres, yielding 301,500 tons of fiber and 370,000 tons of hemp seed. The annual production of hops is about 650,000 hundredweight. The hay crop of European Russia in 1897 was 33,208,000 tons; in Poland, 1,805,000 tons; in western Siberia and northern Caucasia, 10,200,000 tons. Siberia produced 4,464,000 quarters of wheat in 1896, and northern Caucasia, comprising the provinces of Kuban, Stavropol, and Terek, produced 5,707,000 quarters. The wheat product of Transcaucasia in 1897 was 5,535,000 quarters. The area planted in 1895 to tobacco in Russia, Siberia, and Caucasia was 128,480 acres, producing 1,263,400 hundredweight. Vineyards cover 16,000,000 acres, but only on 361,000 acres in certain districts of south Russia is wine making carried on successfully, the vintage in 1895 amounting to 4,550,000 gallons. Cotton is grown in central Asia from American seed, but about half the crop comes from the native cotton tree. The production of cleaned cotton in Turkestan, chiefly in Ferghana, was 840,000 hundredweight in 1895; in Khiva and Bokhara, 322,000 hundredweight. This product has been introduced in Transcaucasia also, and about 200,000 hundredweight is raised in Erivan alone. About 330,000 hundredweight of cocoons are produced annually in Turkestan, and the silk culture is

well established in the Caucasus also. Turkestan produces also 2,670,000 hundredweight of rice every year.

The mineral resources of Russia have been rapidly developed of late years. The production of pig iron increased from 448,000 tons in 1880 to 1,612,000 tons in 1897; of coal, from 3,289,000 to 9,314,000 tons; of naphtha, from 352,000 to 7,057,000 tons; of copper, from 3,203 to 5,416 tons. The quantity of finished iron produced in 1896 was 440,000 tons; of steel, 879,000 tons. The output of gold in Siberia and the Urals was 37,176 kilogrammes in 1897. The best Ural mines are exhausted, but in Siberia new fields have been discovered. The production of platinum, which is found only in the Ural mountains, has increased from 2,947 kilogrammes in 1880 to 4,930 in 1897. The production of silver, obtained mainly from the Altai, was 10,757 kilogrammes in 1896; of lead, 412 tons; of zinc, found only in Poland, 4,951 tons; of salt, extracted chiefly in southern Russia, Perm, and Astrachan, 1,523,000 tons; of quicksilver ore in 1895, obtained from the Caucasus, 81 tons, from which 954,000 pounds of mercury were extracted in southern Russia; of cobalt ore from Elisabethpol, 56 hundredweight; of manganese ore, 118,170 tons; of tin from Finland, 12 tons. The imports of coal increased from 1,502,800 tons in 1891 to 1,948,600 tons in 1896; of coke, from 199,900 tons to 357,800 tons.

The production of spirits, reduced to pure alcohol, was 79,300,000 gallons in 1897, against 82,216,000 gallons in 1896; of beer in 1895, 87,282,100 gallons. The sale of spirits by retail was first undertaken by the Government in 1894, and the system had been extended to 25 provinces before 1898. The area planted to the sugar beet in 1898 was 992,980 acres; the production of refined sugar in 238 factories was 636,890 tons in 1897. The cotton industry has grown so that the products are valued at more than 400,000,000 rubles a year, compared with 240,000,000 rubles in 1880.

The customs duties on imports were repeatedly increased until by the tariff of 1894 they averaged 24 per cent. on raw materials, 32 per cent. on manufactured goods, and 61 per cent. on articles of food. Out of a total value of 508,516,000 paper rubles for imports in 1897 raw cotton stands for 67,037,000 rubles; unmanufactured metals, 56,604,000 rubles; machinery, 53,125,000 rubles; wool and woolen yarn, 29,209,000 rubles; metal goods, 26,080,000 rubles; tea, 17,867,000 rubles, besides the overland importations, which were only 3,362,000 rubles in value, although in previous years they exceeded the importations by sea, amounting in 1896 to 20,253,000 rubles; rice, 708,000 rubles by sea and 18,940,000 rubles from Persia, the latter import having increased from 2,775,000 rubles in the previous year; leather and skins, 14,434,000 rubles; colors, 11,926,000 rubles; coal and coke, 10,846,000 rubles; wine, beer, and spirits, 10,345,000 rubles; various textiles, 10,599,000 rubles; raw and spun silk, 10,131,000 rubles; fish, 9,544,000 rubles; chemicals, 9,297,000 rubles; gums and resin, 9,146,000 rubles; fruits and nuts, 6,423,000 rubles; coffee, 6,042,000 rubles; watches and clocks, 2,753,000 rubles; cotton goods, 2,530,000 rubles; tobacco, 2,306,000 rubles. The export of wheat in 1897 was 68,670,000 hundredweight; of barley, 28,780,300; of rye, 23,685,900; of oats, 14,044,000; of corn, 6,810,600. The total value of cereal exports was 353,353,000 rubles. The grain exports form on the average 55 per cent. of the total exports to Europe. The exportation of eggs has grown from 724,000,000 in number in 1893 to 1,737,000,000 in 1897, valued at 25,520,000 rubles, besides 30,300 hundredweight of preserved

eggs, valued at 431,000 rubles. Of fish and caviar the exports were 5,730,000 rubles in value in 1897; of sugar, 10,315,000 rubles; of gin and alcohol, 2,459,000 rubles; of timber and wood manufactures, 54,781,000 rubles; of oil seeds and grass seeds, 45,309,000 rubles; of flax, 56,182,000 rubles; of hemp, 11,215,000 rubles; of bristles, hair, and feathers, 11,727,000 rubles; of wool, 8,933,000 rubles; of furs, 5,027,000 rubles. The export of illuminating oil was 16,007,600 hundredweight and of lubricating oil 2,844,200 hundredweight, the total value of naphtha exports being 25,158,000 rubles. The exports of manufactured goods increased in total value from 11,196,000 rubles in 1895 to 19,146,000 rubles in 1897, of which 2,717,000 rubles represent metal goods, 3,972,000 rubles cotton fabrics, 1,869,000 rubles woollens, and 10,588,000 rubles various manufactures. The shipments of manufactured goods to Vladivostok, which are not included in this total, amounted to 24,552,000 rubles in 1896. The export of horses in 1897 was in number 58,300; total value of animal exports 17,092,000 rubles. The export of oil cake was 12,769,000 rubles in value. The trade by the frontiers of Asia, including the Caucasus, is not included in the above totals. The imports of merchandise in 1896 were 63,015,000 rubles in value; exports, 77,209,000 rubles, including naphtha for 22,911,000 rubles, cereals for 14,809,000 rubles, and oil seeds for 11,820,000 rubles.

The importation of precious metals in 1897 was 139,378,000 rubles; exportation, 8,493,000 rubles.

The value in rubles of the commerce in 1897 with the various countries by the European frontiers and the Black Sea frontier of the Caucasus is shown in the following table:

COUNTRIES.	Imports.	Exports.
Germany.....	179,800,000	175,237,000
Great Britain.....	102,091,000	150,899,000
Netherlands.....	5,863,000	87,255,000
France.....	24,688,000	63,684,000
Austria-Hungary.....	19,297,000	39,082,000
Belgium.....	25,097,000	32,716,000
United States.....	47,678,000	2,707,000
Italy.....	10,538,000	31,472,000
Egypt.....	24,002,000	5,316,000
Turkey.....	5,589,000	12,686,000
China.....	13,771,000	1,008,000
Roumania.....	1,360,000	10,926,000
Denmark.....	1,885,000	9,335,000
Other countries.....	46,582,000	81,499,000
Total.....	508,516,000	704,222,000

In 1898 the total value of imports was 562,000,000 rubles and of exports 588,000,000 rubles. Germany had 35.9 per cent. of the import and 25.2 per cent. of the export trade, Great Britain taking the second place with 32.2 per cent. of the imports and 19.8 per cent. of the exports. The British share of the export trade has decreased from 36.5 per cent. in 1899, and the proportion of British imports is also smaller, while German trade has increased from 122,500,000 rubles, or 31.3 per cent. of the total imports in 1888, to 202,000,000 rubles. The British share in the imports was 101,250,000 rubles, or 25.9 per cent. of the total, in 1898 and 114,000,000 rubles, or 20.2 per cent. of the total, in 1898. The year was a prosperous one for Russian industry, especially in the iron, naphtha, sugar, and cotton branches. The foreign capital embarked in Russian industries is Belgian, French, and German, and to a very small extent British except in the petroleum industry. Russia is making great strides as a manufacturing nation, although agriculture is not advancing. Spinning and weaving machinery is imported from England, but steam engines now come from Switzerland, boilers from Poland,

steam pumps and machine tools from the United States, and electrical machinery from Germany and Switzerland. Wages in the factories are 25 per cent. lower in winter than in summer, and the rates earned by women 30 per cent. below those paid to men for the same amount of work. The factory laws are very strict. Each workman, whether belonging to an *artel* or not, is provided with a book in which are set down the conditions and the period of his engagement. The amount of fines is strictly limited, and these must be paid into a fund for the benefit of the workmen. The manufacturers provide barracks for their work people, and furnish fuel and lights, as well as lodging, for 25 copecks a month or not much more. Food, purchased at wholesale by the *starosta* of the *artel*, makes the cost about 2 rubles 50 copecks a month, including lodging. The peasant operatives can thus deposit in the savings bank 40 rubles or more as the result of their winter's work. Beginning the development of her industrial resources much later than other nations, Russia is putting up factories equipped with the most modern machinery and is adopting the latest perfected methods of manufacture. In this development, which is fostered by the Government, American enterprise and skill play an important part. To equip freight trains on the railroads, as well as passenger trains, with continuous air brakes, the Westinghouse Company has erected a large factory in St. Petersburg. Agriculture in Russia, where the crops have frequently failed in the central and eastern provinces, is in a bad condition. M. De Witte advised the Czar to make the reorganization of the social and material well-being of the Russian peasantry the chief work of his reign. In 1899 the valley of the Volga and adjoining regions were afflicted by one of the periodical famines. The failure of the grain harvest and the grass crop of 1898 in the fertile regions of southern Russia was followed by a repetition of the calamity in Kieff, Poltava, Bessarabia, Kherson, and Taurida provinces in consequence of heat and drought in the spring, while cold and rain injured the crops in the north and northwest. In the east the provinces of Vyatka, Perm, Ufa, Samara, and Kazan had no crops, and west of the Volga the provinces of Riazin, Tula, Simbirsk, Saratoff, Voronezh, and Tamboff suffered a total failure of crops. Not only the spring and winter sowings of grain perished in most of the localities, but also vegetables and grass. The Government granted 35,000,000 rubles to supply six of the provinces that began to suffer in the autumn of 1898 with seed, bread, and fodder. The official allowance of 35 pounds a month was given only to the young and the aged. The Czar gave 3,500,000 rubles for relief. In some districts poor people were unable to obtain firewood. When scurvy in an acute form appeared in the outskirts of the city of Kazan the *zemstros* and the Red Cross Society, which was distributing relief in the provinces of Kazan and Samara, organized a medical force. Students were employed by the Government to distribute food and seed corn. Road making was ordered by the Government on a great scale to give employment to the able bodied, but this kept many of them away from their fields in seedtime. The sum of 6,800,000 rubles was assigned for the purchase of horses and cattle, and 67,800 horses were bought in Siberia and Orenburg for the distressed provinces. Noblewomen took groups of villages under their special care, and landowners and capitalists whose property was in the stricken region and other persons of wealth gave largely. Notwithstanding these efforts, more than 5,000,-

000 people in a total population of 11,000,000 were suffering acute distress in May. In July the Ministry of the Interior drew up regulations intended to guarantee a supply of food in the event of another crop failure, taking this duty out of the hands of the *zemstros* and intrusting it entirely to the Government officials guided by a special famine commission.

Navigation.—The total number of vessels in the foreign trade entered at the ports of Russia and of the Black Sea coast of the Caucasus during 1897 was 9,666, of 7,758,343 tons, of which 1,404, of 760,410 tons, were Russian and 8,202, of 6,997,933 tons, foreign; the total number cleared was 9,521, of 7,735,433 tons, of which 1,359, of 748,958 tons, were Russian and 8,162, of 6,986,475 tons, foreign. The number entered at the Baltic ports was 5,753, of 3,500,453 tons, of which 796, of 290,798 tons, were Russian and 4,957, of 3,209,655 tons, foreign; cleared, 5,682, of 3,489,763 tons, of which 750, of 287,560 tons, were Russian and 4,926, of 3,202,203 tons, foreign; entered in the White Sea, 716, of 314,544 tons, of which 338, of 45,004 tons, were Russian and 378, of 269,540 tons, foreign; cleared, 677, of 312,176 tons, of which 300, of 43,083 tons, were Russian and 377, of 269,093 tons, foreign; entered at ports of the Black Sea and the Sea of Azof, 3,197, of 3,943,346 tons, of which 330, of 424,608 tons, were Russian and 2,867, of 3,518,738 tons, foreign; cleared, 3,162, of 3,933,494 tons, of which 303, of 418,315 tons, were Russian and 2,859, of 3,515,179 tons, foreign. The total number of vessels entered at Caspian ports in 1896 was 18,055, of 8,593,983 tons, of which 17,284, of 8,360,269 tons, were coasters and 771, of 233,714 tons, in the foreign trade. The number of coasting vessels entered at the Baltic, White Sea, and Black Sea ports in 1896 was 38,943, of 13,794,870 tons. The number of vessels that visited the Pacific ports of Vladivostok and Nikolaievsk was 347, of 313,531 tons.

The Russian mercantile navy on Jan. 1, 1898, numbered 391 steamers, of 116,593 tons, and 1,755 sailing vessels, of 155,430 tons. Of the total number, 95 steamers, of 19,053 tons, and 586 sailing vessels, of 78,745 tons, belonged in the Baltic; 33 steamers, of 5,028 tons, and 396 sailing vessels, of 22,149 tons, in the White Sea; and 263 steamers, of 142,512 tons, and 773 sailing vessels, of 54,535 tons, in the Black Sea and the Sea of Azof. The new port of Alexandrovsk, on the Murmanian coast of Lapland, which is kept free of ice all the year round by the Gulf Stream, was opened on July 6, 1899.

Railroads.—The length of new lines in process of construction was 7,426 miles, of which the Siberian Railroad administration was constructing 2,636 miles, the Government 1,064 miles, the Finland authorities 150 miles, and private companies 3,727 miles. Further additions authorized were 2,205 miles in total length, of which 235 miles were to be built by the Government, 63 miles by the Manchurian Railroad Corporation, and 1,917 miles by companies. The Siberian line, which is expected to be completed by 1905, was open in 1898 as far as Irkutsk, 2,030 miles, and from the opposite shore of Lake Baikal to Sretensk, at the head of navigation on the Amur, 701 miles. The Pacific section of 475 miles from Vladivostok to Khabarovsk, on the Amur, was finished in 1897. Tchelyabinsk, the starting point of the main line, is connected with the general system of Russia by a branch line to Ekaterinburg, 150 miles. The section running round the southern shore of Lake Baikal has since been completed. Beyond there the route has been

altered with the object of avoiding engineering difficulties in the Amur valley. The new route runs from Onon, in the Transbaikai, to Vladivostok through Manchuria, and, as 945 miles of the 1,273 are in Chinese territory, a private company was formed in December, 1896, and intrusted with the construction. The main line was open in April, 1899, from the frontier of European Russia to Irkutsk. The Government appropriated 13,611,300 rubles for the purpose of enlarging and completing the harbor of Vladivostok. The increase of traffic on the eastern, and still more on the western, division of the line surpassed all expectations. On the western part 350,000 passengers, 400,000 peasant emigrants, and 490,000 tons of freight were carried in 1898.

After investigation the Czar decided to abolish altogether the system of deportation to Siberia, substituting other kinds of punishment for crime, especially compulsory labor for the benefit of the community as a penal and preventive measure. The condition of the exiles now in Siberia will be ameliorated.

The Transbaikai section of the Siberian Railroad was completed to Stretensk on Dec. 28. From that point, where the railroad will stop until further plans are decided upon, goods and passengers go by steamboats down the Shilko and Amur rivers to the north end of the eastern section, which follows the Ussuri river to Vladivostok. Meanwhile work is continued on the Eastern Chinese Railroad which Russia is building from Stretensk through Manchuria to Vladivostok. This and the Manchurian Railroad to Port Arthur and Niuchwang are expected to be completed before 1902. The total distance from St. Petersburg to Port Arthur is 5,620 miles. Trains are carried across Lake Baikal by ferryboats. From the eastern shore the distance to Stretensk, the present terminus, is 693 miles. The line will have to be relaid with heavier rails and ballasted to accommodate the unexpectedly large traffic that has already been developed.

A new railroad running northwest from Perm by way of Vyatka to Kotlas, on the Dvina, 619 miles, will allow the grain and other produce of western Siberia to be brought to Archangel and shipped thence to any port in Europe. A line from Vologda to Archangel was completed in 1897. In Caucasia a line has been built from Tiflis to Kars, 188 miles, and another runs from the Vladikavkaz trunk line to Petrovsk, on the Caspian Sea. In central Asia an extension of the Transcaspian line runs from Samarcand to Andijan, the capital of Ferganah, with a branch to Tashkend, the capital of Russian Turkestan, having a length of 342 miles. In European Russia new lines have been built or are building to connect Kursk with Veronezh, Moscow with Kazan, Tamboff with Kamyshin, and St. Petersburg with Sestroryetsk. The traffic on the Transcaspian Railroad increased from 292,500 tons in 1896, paying 5,449,030 rubles, to 390,100 tons in 1897, paying 7,061,000 rubles. An important trunk line is projected in central Asia, to run from Alexandrovsk, the terminus of the Ural line, through Transcaspia along the left bank of the Amu Daria as far as Tshardjui, on the Transcaspian Railroad. An alternative project is for a line running from Orenburg through Turgai and Turkestan to Tashkend. The object is to connect the commercial centers of Russia with central Asia by the shortest route. The cost is estimated at 90,000,000 rubles, and the country traversed is capable of raising vast quantities of wheat and other products. A military railroad is contemplated which will run from Tashkend to

Viernoe, on the border of the Chinese territory of Kuldja, whence it can be extended later in a northerly direction to Semipalatinsk, on the river Irtysh, there to meet the projected branch of the Siberian Railroad from Omak to the south. Another branch of the Siberian Railroad from a point near Lake Baikal southward to Kalgan, on the Great Wall of China, is under consideration. The Turkish Government has been asked for permission to build a short railroad from Kars to Erzerum.

The zone tariff for passengers was introduced on Russian railroads in 1894, and in three years the traffic increased 29 per cent. and, although fares were reduced so that a journey of 2,000 miles can be made for 17 rubles instead of more than 43 rubles, the receipts from passengers increased 18 per cent., the total for 1897 being 66,767,500 rubles from 53,354,186 passengers carried. The freight traffic in 1895 was 90,115,000 tons, having increased nearly one third in four years, while the mileage was increased two fifths. The gross receipts for 1896 of all the railroads excepting the Transcaspien and the railroads of Finland, the aggregate length being 25,756 miles, were 426,322,767 rubles, and the working expenses 248,245,732 rubles; net receipts, 178,077,035 rubles. The revenue of the Government from railroads, both state and private, was 312,374,372 rubles, and the expenditure 278,283,293 rubles, leaving a balance of 34,091,079 rubles, whereas in previous years there had been constant deficits, but this balance was reduced by expenditure for improvements to 25,283,461 rubles. The railroads belonging to the Government had a length in 1898 of 17,009 miles, but of these 516 miles were leased by the Government to private companies. The railroads operated by the Ministry of Communications formed two thirds of the total mileage of the empire. The capital cost of the Government railroads was 2,744,923,577 rubles. The gross receipts of the railroads under Government management was 273,969,819 rubles, and the expenses 157,366,602 rubles, leaving 116,603,217 rubles of net receipts. Including a railroad just taken under state management, the net income was 119,666,619 rubles, out of which 110,635,698 rubles had to be paid as interest on capital borrowed for the purchase and construction of the state lines, showing a clear net profit of only 9,030,921 rubles. The lines under private management had a length in 1897 of 9,566 miles, built at a cost of 1,005,145,885 rubles, on which interest was paid amounting to 41,668,695 rubles. The gross receipts from these lines in 1896 were 140,224,306 rubles and the expenses were 81,851,231 rubles, leaving a net revenue of 58,373,075 rubles. By the transfer of private railroads to the Government the debts owed by companies to the state were reduced from 819,170,204 rubles on Jan. 1, 1897, to 253,685,615 rubles on Jan. 1, 1898.

Posts and Telegraphs.—The post office in 1897 carried 271,263,000 internal and 34,568,000 external letters, 54,708,000 internal and 7,098,000 external postal cards, 242,310,000 internal and 25,752,000 external newspapers and circulars and 16,639,000 internal and 606,000 external money letters of the declared value of 23,954,365,000 francs and 369,781,000 francs. The postal receipts were 170,161,024 francs; telegraph receipts, 58,757,372 francs; expenses of posts and telegraphs, 132,117,648 francs. The state telegraphs had a length in 1897 of 84,097 miles, with 175,866 miles of wire. The Anglo-Indian line in Russian territory had a length of 2,253 miles, with 4,860 miles of wire, and privately owned lines a length of 2,641 miles, with 5,300 miles of wire. There were

12,868,226 internal dispatches, 1,054,918 foreign dispatches sent and 1,086,845 received, 224,776 transit dispatches, and 1,083,294 service dispatches in 1897; total, 16,318,059.

Student Troubles.—The regulations issued by Count Tolstoi when Minister of Public Instruction, forbidding students to associate together or to form clubs or societies of any kind, were extended and made more stringent by M. Bogolepoff, the new minister, in the beginning of 1899. Against these new regulations the students of the University of St. Petersburg protested with noisy and turbulent manifestations when they assembled on Feb. 20 to celebrate the anniversary of the foundation. The university building was thereupon filled with police in spite of the protests of students and professors, and when the students left the building and started to go into town over the Neva by the bridge or on the ice the new mounted constabulary, carrying whips like Cossacks, brutally lashed them with these to keep them back. When the Government expelled students who had taken part in the demonstration the whole body remained away from lectures. In consequence of this the minister closed the university, the Military Academy of Medicine, the Institute of Ways of Communication, the Institute of Civil Engineers, the School of Forestry, the Academy of Arts, the Mining School, and the Technological Institute. The students of these schools, about 6,000, remained quiet, although some were arrested daily and numbers of them were expelled and told to leave the city by order of the minister. The strike extended to Moscow, Kharkoff, and other universities, and similar disciplinary measures were taken against the students, some of whom were banished to Siberia. After a stormy discussion in the Council of Ministers, M. Witte undertook to bring the whole matter to the notice of the Czar. As the result of the sympathy displayed in regard to the real grievances of the students in his communication to the Czar, Gen. Vannofsky, ex-Minister of War, was ordered by the Czar to make an inquiry into the causes and circumstances of the troubles. The result was that the expelled students were allowed to return and the power of punishment was taken away from the police and restored to the university authorities. However, shortly after the resumption of lectures, the disturbances were renewed, and the university was again closed. The students of Moscow and Kieff had been subjected to disciplinary punishment, instead of being amnestied like their fellows in St. Petersburg, and the latter decided to support them as they had been supported by all the students in Russia, and at a meeting voted to resume the strike, which extended to the Mining School and other institutions in St. Petersburg, and then to the universities and technical schools of the provinces, affecting more than 30,000 students. The Government decided not to readmit students who could not give guarantees for their future good behavior. The new technical colleges established in the provincial capitals had shown as much discontent as the universities. M. Goremykin, the Minister of the Interior, supporting the repressive policy of the Minister of Education, set to work to discover political disaffection among the students, employing *agents provocateurs*, it was said. Many students were imprisoned for being in possession of a seditious proclamation calling for radical political reforms. When allowed on their petition to return to St. Petersburg and other university towns for the purpose of passing their examinations, the students frequently came into collision

with the police, and hundreds were expelled. The agitation spread to female colleges, and these also were closed. At Kieff the troops were called in to suppress a student riot, and 400 students were arrested. Before the end of April all the higher educational establishments of Russia were ordered to be closed. Only those students were permitted to re-enter who signed a written declaration of absolute submission to the established rules of the universities. Students were arrested in all the university towns by wholesale, tried in secret, sentenced to be banished, and sent away to all parts of the empire. The jails of St. Petersburg were filled to overflowing with imprisoned students, and in the course of a few weeks more than 3,000 were exiled to Siberia. There were 2,160 expulsions from Moscow University, 600 from Kieff institutions, and even from the Ladies' High School at St. Petersburg more than 200. In accordance with Gen. Vannofsky's report, the Czar censured the civil authorities and the police for their harsh proceedings, the teaching authorities for not having more influence and control over the students, and society for sympathizing with the students; condemned the absence of supervision over the work and occupations of students and the overcrowding, which in many institutions is far beyond their space and pecuniary resources; and ordered the students to return to their studies, promising that the leaders and participants in the disorders should be lightly punished unless they were accused of actions and aspirations with political aims. The students imprisoned in St. Petersburg and other towns were released, but were sent away. A new regulation was announced in August, designed to prevent a repetition of the disturbances. All students who in future create or instigate disorders either within the higher educational institutions or outside will be forcibly drafted into the army and made to serve as soldiers for a period of one to three years, according to the decision of the authorities of the institution concerned, assisted by delegates from the Ministries of War, Justice, and the Interior. On Nov. 1 M. Goremykin, who had rendered himself unpopular by his intervention in the student question and by other actions, was dismissed from the Ministry of the Interior, being succeeded by M. Sepiagin, who was appointed, as is usual, for a probationary period at first. A new educational institution was established at Vladivostok for instruction in the Chinese and English languages, with either Japanese, Korean, Mongolian, or Manchu, and French, at the option of the student, also commercial and economical subjects, the object being to prepare young men for administrative, commercial, and industrial posts in east Asiatic Russia and adjoining countries.

Finland.—The grand duchy of Finland was ceded to Russia by Sweden in 1809. By a special grant of Alexander I, which his successors have renewed on their accession, some of the Swedish constitutional liberties secured in 1772 and 1809 were guaranteed, and to take the place of representation in the Swedish Riksdag a Finnish Diet was instituted. Innovations were introduced in 1869 and 1882 into the charter, which provides for the representation of the four estates—namely, the nobles, the clergy, the burghers, and the peasants—in a Parliament convoked by the Czar as Grand Duke of Finland. Projects of law submitted by the Grand Duke are discussed and amended, but he retains the right of veto. Amendments to the Constitution or new taxes must have the consent of all four estates, but the initiative was reserved by Alexander II to imperial

authority. The projects of law are framed by the State Secretary for Finland in St. Petersburg, assisted by four councilors, two of whom are appointed by the Russian Government and two selected by the Senate at Helsingfors, the members of which are nominated by the Crown. The Senate is the executive authority in Finland, and consists of the Department of Finance, which administers the railroads, telegraphs, canals, and customs, and the Department of Justice, which has charge of public health and the judiciary. Military affairs are looked after by the Russian Ministry of War and foreign affairs by the Russian Chancellor. Finland has its own currency, but in 1890 the Russian paper and silver rubles were declared legal tender. A penal code enacted by the Senate in that year was not put into force, by decision of the Russian Government. The post offices of Finland were placed in charge of the Russian Minister of the Interior and attached to the Russian postal service in 1891.

The estimated revenue for 1897 was 65,601,740 marks or francs, of which 14,664,098 marks were the balance from former budgets and 2,000,000 marks were taken from the reserve fund. The estimated expenditures left a surplus of 11,227,168 marks to be carried over to the following year. Of the revenue indirect taxes produced 24,480,000 marks and direct taxes 5,801,620 marks. The chief expenditures were 9,827,195 marks for civil administration, 7,997,920 marks for military affairs, 7,682,335 marks for education and worship, and 4,663,160 marks for the public debt. The debt amounted to 84,264,668 marks.

The land of Finland is divided among 345 nobles, 2,218 burghers, 297 foreigners, and 111,557 peasants. Of the owners 28 per cent. have farms under 12½ acres, 51 per cent. between that size and 62½ acres, 19 per cent. between the latter figure and 250 acres, and 2 per cent. estates of greater extent. Rye, oats, barley, potatoes, wheat, flax, and hemp are the crops. Of horses there are 300,650, and 1,409,183 cattle, 1,067,384 sheep, 197,356 hogs, and 129,984 reindeer. The Crown forests cover 14,050,471 hectares, and their produce brings in 2,284,000 marks a year, less 628,000 marks for maintenance. The product of iron ore in 1895 was 67,724 tons; of pig iron, 23,220 tons; of bar iron, 17,863 tons. Besides iron and mechanical works, there are factories for textiles, leather, beer, spirits, paper, and chemicals, and wood and bone working employs a great many people. The total value of imports in 1897 was 202,500,000 marks, of which 73,200,000 marks came from Russia, 65,700,000 marks from Germany, 29,200,000 marks from Great Britain, 12,200,000 marks from Sweden and Norway, and lesser amounts from Denmark, France, Spain, and other countries. The total value of exports was 168,700,000 marks, of which 51,200,000 marks went to Great Britain, 48,300,000 marks to Russia, 17,000,000 marks to Denmark, 14,600,000 marks to France, 13,000 marks to Germany, and the rest to Sweden, Spain, and other countries. The principal imports were cereals for 41,000,000 marks, cotton and cotton goods for 13,900,000 marks, iron and hardware for 12,800,000 marks, machinery for 12,100,000 marks, coffee for 11,170,000 marks, woollens for 8,500,000 marks, sugar for 6,600,000 marks, and for smaller amounts chemicals, leather goods, tobacco, oils, etc. The export of timber was valued at 79,400,000 marks, butter at 30,300,000 marks, paper and paper pulp at 15,600,000 marks, iron and iron goods at 4,400,000 marks. Lesser items were textiles, leather, hides and skins, tar, and pitch.

The number of vessels entered at Finnish ports

during 1897 was 8,376, of 1,868,713 tons, of which 5,871, of 822,907 tons, were Finnish; 528, of 83,414 tons, Russian; and 1,977, of 962,392 tons, foreign. The total number cleared was 8,354, of 1,861,177 tons. The Finnish merchant marine on Jan. 1, 1898, consisted of 1,790 sailing vessels, of 248,809 tons, and 218 steamers, of 35,103 tons.

The principal avenues of internal communication are the canals connecting the lakes of Finland, through which 24,332 vessels passed in 1896. The railroads have a total length of 1,535 miles, all belonging to the Government except 20 miles. The number of letters and postal cards carried in the mails in 1896 was 11,123,781; of newspapers, 10,631,868; of parcels, 1,939,899.

Under the military law of 1878 all Finns at the age of twenty-one have to present themselves to be drawn by lot for service in the army, which lasts three years with the colors and two years in the reserve; those not drawn for active service pass into the reserve, and during the five years are called out three times for instruction. The officers and underofficers must be of Finnish nationality, under the chief command of the Governor General. The Finnish troops in 1898 consisted of 1 battalion of rifles, incorporated in the Czar's bodyguard at St. Petersburg, 8 battalions of rifles of the line, and 1 regiment of dragoons; total effectives, 236 officers and 6,020 men. Of Russian troops there were stationed in the grand duchy 8 battalions of rifles, 2 battalions of fortress infantry, 4 batteries, 16 companies of fortress artillery, and a detachment of sappers; total strength, 300 officers and 9,200 men.

In 1898 the Senate was called upon by the Grand Duke to prepare a scheme of universal obligatory military service for Finland. On Jan. 25 the Parliament, which was convoked every four or five years between 1861 and 1888, but had not met since the latter date, was called together in extraordinary session, and Gen. Bobrikoff, who had just been appointed Governor General in succession to Count Heydon, read to the representatives of the four estates of the Finnish people a speech from the throne, in which the Czar announced that since Finland had no need of troops separate from those of the Russian army, being indissolubly united with the empire and under the protection of the entire Russian state, the law of military service in Finland must be made uniform with that of the empire at large. At the same time, it being desirable that the new law should be made to harmonize with local conditions as far as possible, the project of the law would be submitted to the Diet. The obliteration of the special privileges and national Constitution of the Finns has been the desire and aim of the Slavophile party since the time of Alexander III, who would not countenance the Russification of the grand duchy to the extent that process was carried on in the Baltic provinces and in Poland before the close of his reign. On Feb. 15 an imperial manifesto was published stating that all legislation affecting the empire at large, as well as Finland, would in future be transacted by submitting projects of new laws to the Finnish Diet for its opinion as to the best method of adapting them to the conditions prevailing in the grand duchy, after which they will be passed over to the Russian State Council to be dealt with and promulgated in the usual way. In such cases the Emperor will be approached only by the imperial minister whom the projected law concerns and the State Secretary for Finland. The discussion of such laws in the State Council will be attended by the Governor General and the State Secretary, and when necessary by cer-

tain members of the Finnish Senate appointed by the Czar. In this way the Finnish Parliament and Senate will no longer have the exclusive right of discussing measures designed for the purpose of bringing Finland into closer conformity with the rest of the empire, and therefore also affecting Russia. The manifesto declares that the existing system is maintained in full force as regards the promulgation of local laws touching exclusively the internal affairs of Finland, but reserves to the Emperor and his advisers the ultimate decision as to which laws come within the scope of the general legislation of the empire. This decision to treat any Finnish question that a Russian minister may consider to be connected with the requirements of the state in general as a matter to be decided by the Russian Council of State, leaving the Finnish Diet only a consultative voice, was totally unexpected, and it created a profound depression in Finland.

The Finnish people saw in this new fundamental law the virtual abrogation of their self-government and the prelude to the obliteration of their customs tariff and fiscal independence, of their currency, of their separate railroad administration, of their system of education, perhaps of their language and religion in the end. Their Parliament would be reduced to the position of a Russian provincial *zemstvo*. When the imperial manifesto became known at Helsingfors the ladies and most of the men put on mourning. At first the Finnish Senate did not wish to promulgate the new law without having first protested and made an effort to have it repealed. The party known as Finnish, which is opposed in Finland to a so-called Swedish party, was divided in opinion at first, having on previous occasions justified Russian interference because the Russian authorities have usually befriended the peasantry in their conflicts with the Swedish nobility. The chief of the Finnish party resigned his seat in the Senate as a protest against holding back the Czar's manifesto. Later the bulk of the Finnish party were of the same mind as their former opponents as to the seriousness of the Russian attack on the chartered liberties of the grand duchy. The Senate, in spite of the irregularity of the procedure according to the Finnish Constitution, which declares that the Emperor and Grand Duke shall not make a new law without the knowledge and consent of the Diet or abolish an old law, decided to promulgate the manifesto and the new law that accompanied it, and at the same time to send a deputation to St. Petersburg, consisting of the *talman*, or spokesman, of each of the four estates, to plead with the Czar. The Minister State Secretary sought for this deputation an audience with the Czar, but Nicholas II refused to receive it, answering that he was deeply affected at learning that it was thought that he desired to break his word. He had given the best guarantee for the preservation of the internal legislation of Finland, and he commanded the State Secretary to request the deputies to return to their work at Helsingfors. A long petition coming from the Senate of Finland was forwarded to the Czar at the same time. It called attention to the paragraph of the Constitution declaring that fundamental laws can be made, amended, explained, or repealed only on the proposition of the Emperor and Grand Duke and with the consent of all the estates, and begged the Emperor to declare that no restriction of the constitutional rights of the Finnish people was implied in the new imperial enactment. No response was given to that, and next the Finns circulated a popular petition to which 523,000

names were signed, and this was taken to St. Petersburg by 500 representatives of all classes from every part of Finland. This address represented that the imperial manifesto had aroused alarm and sorrow throughout Finland, because it had dislodged the foundation stone of the social structure and taken away the right of the Finnish people to partake in their legislation, which Alexander I had promised forever and Alexander II and Alexander III had confirmed and extended; and pointing out that, although it had calumniators in Russia, the Finnish people had been faithful, law-abiding, averse to revolutionary doctrines, unflinching in the preservation of public order, the petitioners, unwilling to believe that the imperial intention was to menace the internal tranquillity, prayed the Emperor, who had placed right above might, to ordain that the new statutes be brought into harmony with the fundamental law of Finland, recognizing that the right of a small people is as sacred as that of the greatest nation and its patriotic feeling a virtue from which it may never recede. The deputation arrived in St. Petersburg in the middle of March without having first obtained the permission of the Governor General, in default of which Gen. Procope, the Minister for Finland, could neither receive them himself nor ask for them an audience with the Emperor. The Czar sent word that he was not offended, but they must go back to their homes and transmit any appeal they might have to make through the Governor General. The Emperor also wished the Minister Secretary of State to explain to the deputies that the manifesto does not interfere with the internal legislation of the country, but only applies to laws of imperial interest.

The committees of the Diet which examined the law for the reorganization of the army went exhaustively into the constitutional question, and reported that the proposed treatment of the Finnish army was inadmissible both in substance and in form. The military commission suggested that the Diet should accept as far as possible the new military burden, involving the addition of 7,200 men to the army and the raising of 10,000,000 rubles a year for their support, by raising the strength of the army on the peace footing from 5,600 to 12,000 men, retaining the present three years' service. The Russian proposal was for the ultimate increase of the army to 36,000 men, with a service of five years, and it was part of the plan to draft the men into the Russian army for service in remote parts of the empire under Russian officers, whereas the Constitution of Finland declares that none but Finnish citizens shall be eligible as officers, and prescribes that the troops shall be kept at home for the defense of Finland except when in time of war their services may not be needed at home and may be required elsewhere to aid in the general defense of the empire. The purpose of garrisoning Finland with Russian troops was another feature of the plan. The provisions of the army law were not only a grievous charge to be borne in a country which had hitherto escaped the crushing burden of modern military service, but to deport the young Finns to Russia and quarter Russian troops in Finland was obnoxious to the traditional sentiments of the people, an invasion of their guaranteed liberties if accomplished without the consent of the Diet, and apparently designed to extirpate their liberties and their nationality by the process that was being applied to the Poles, the Baltic Germans, the Armenians of the Caucasus, and alien elements in the empire everywhere.

The political excitement caused in Finland was a new manifestation in that quiet country. Newspapers that contained bitter comments on the Czar's manifesto and its tendency were confiscated or warned. Among the peasants there were many who welcomed the advent of Russian law and administration. Other Finns, to escape universal military service, emigrated to the United States or Canada. Notwithstanding the receipt of a communication stating that by the decision of the Emperor the military law belongs to the category of laws concerning the whole empire, the Diet adopted the conclusion of the committee that a law relating to military service can not be legally enacted in Finland without parliamentary consent. It resolved further that the militia should not be employed outside of Finland save for the defense of St. Petersburg. After the Diet had refused its consent to the Russian proposals, its session was closed on May 27 by an imperial edict. The Finnish Government had proposed to spend 10,000,000 marks of the surplus funds on railroads, including an extension from Uleaborg to Tornea, on the Swedish frontier. The Russian authorities insisted that the Finns should build a bridge across the Neva and connect their railroads with the Russian system rather than the Swedish. Of the amount set aside for railroad construction, it was ordered from St. Petersburg that only 6,000,000 marks should go for this purpose, while 2,000,000 marks should be expended on the army and 2,000,000 marks should form a fund with which land might be gradually acquired for the *torpars*, or agricultural laborers, of whom it was found that a third had no land of their own. The Finnish Senate was instructed to form a committee for carrying out this scheme, which made the Russians still more popular with the poorer peasantry. A society was organized for the propagation of the Russian language in Finland by classes and lectures. The educated Finns, however, who were attached to their constitutional liberties, sank their former differences with their Swedish-speaking compatriots of the noble and burgher classes in order to defend the parliamentary system as well as they could against the encroachments of autocracy and their national institutions from Russification. In addition to their political troubles, the people were face to face with distress amounting almost to famine, due to a very late spring and floods, which accelerated the emigration movement from the barren northern and eastern districts.

The infringement of the Czar's Government on the chartered rights and privileges of the Finns aroused the sympathy of lovers of constitutional liberty in all countries. A deputation of foreigners went to St. Petersburg to intercede with the Czar and present to him addresses signed by 800 eminent citizens of 12 parliamentary countries of Europe praying him to give heed to the petition of half a million Finnish men and women, and not continue in a course that might retard the cause of amity among the nations which he had sought to promote in summoning the Peace Conference at The Hague. These six gentlemen were politely informed by the Minister of the Interior that the Czar could not receive them and that their addresses could not be accepted. They went then to Helsingfors, and, after receiving an ovation from the Finns, they deposited the addresses in the Finnish archives with the rejected monster petition of the Finnish people. In September Gen. Procope, who had defended the rights of his fellow-countrymen at St. Petersburg as well as he could, was replaced by W. K. von

Plehwe, one of the authors of the policy of Russification, who was appointed acting Secretary of State, being the first Russian who has represented Finland in the Russian Government since the retirement of Count Speransky in 1811. An imperial rescript published on July 4 emphasized the Czar's determination to persevere in his policy in spite of the remonstrances of the representatives of the Finnish people, which were declared to be out of place. Finland was an organic part of the Russian state and inseparable from it, and while the Czar considered it beneficial to preserve the special organization of internal legislation granted by his ancestors, he also inherited

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SALVADOR, a republic of Central America. The legislative power is vested in the National Assembly, a single chamber of 42 members, 3 to each department, elected every year by universal suffrage. The President is elected also by the direct vote of the people for the term of four years. Rafael Antonio Gutierrez was elected President for the term ending March 1, 1899, and Dr. Prudencio Alfaro was elected Vice-President. The Cabinet constituted in 1897 was composed as follows: Minister of the Interior, Dr. Prudencio Alfaro; Minister of War and Marine, Dr. Juan F. Castro; Minister of Public Instruction and Charity, Dr. Carlos Bonilla; Minister of Public Works, Public Credit, and Justice, Dr. Antonio Ruiz. The direction of foreign affairs was delegated to the United States of Central America, a federation composed of Salvador, Honduras, and Nicaragua. In November, 1898, the opponents of federation in Salvador upset the constitutional Government and established a provisional Government under Gen. Tomas Regolado.

Area and Population.—The area of Salvador is 7,225 square miles. The population on Jan. 1, 1895, was estimated at 803,534, of whom only about 20,000 are of pure European descent. San Salvador, the capital, has about 50,000 inhabitants.

Finances.—The revenue in 1898 was \$4,600,000 in silver, and expenditure at least \$11,000,000. In 1896 the revenue was \$10,174,000, and expenditure \$9,745,000. The revenue from import duties was estimated at \$5,144,000; from spirit duties, \$2,524,000. The expenditure of the Ministry of Finance was reckoned at \$2,845,000; for the Ministry of War, \$1,908,000; for the Ministry of the Interior, \$1,487,000; for the Ministry of Public Works, \$1,417,000.

The foreign debt, amounting to £725,000, has been assumed by an English company in consideration of various concessions. The Government agreed to pay to the company £24,000 a year for eighteen years and to hand over the railroad free of charge. The subsidy of £24,000 per annum was secured on 15 per cent. of the import duties. The company was bound to finish the railroad by July, 1901, or pay a forfeit of £1,000 for every month's delay. The internal debt was \$8,000,000 in 1896.

Commerce and Production.—The land is exceedingly fertile, and the people are industrious and frugal. The chief product is coffee. Indigo, sugar, and tobacco are also cultivated. The total value of imports in 1896 was \$3,347,718; of exports, \$7,485,384. The chief imports were cotton for \$961,554, spirits for \$371,205, iron manufactures for \$183,616, flour for \$132,438, and silk

the task of defining the relations of the grand duchy with the Russian Empire by the force of positive law. With this object he confirmed the fundamental law of Feb. 15 laying down rules for issuing general state laws for Finland, and in accordance with this legislative act, which remains unshakable in the future, the labors of the extraordinary Diet would be taken into consideration in drafting the new military law. He commanded the Governor General to impress upon the minds of the population the true meaning of the measures undertaken for the purpose of strengthening the bonds uniting the empire and the grand duchy.

goods and yarn for \$142,389. The chief exports were coffee for \$5,857,646, indigo for \$979,990, tobacco for \$274,208, and balsams for \$92,659. The trade relations are mostly with the United States, Great Britain, Germany, and France. The imports of specie in 1896 were \$119,199 and exports \$187,688. The number of vessels that visited the ports in 1896 was 338. There are 72 miles of railroad, and other lines are building. The length of telegraphs is 1,724 miles of wire, besides 597 miles of telephone line. The number of telegraphic messages in 1896 was 660,682.

SAMOA, a kingdom occupying the Samoan Islands in the south Pacific Ocean, of which the neutrality and independence were guaranteed by the act signed at the Samoan conference in Berlin on June 14, 1889, by representatives of Germany, Great Britain, and the United States.

The area of the islands, 14 in number, is 1,701 square miles. The population in 1897 comprised 35,565 natives, about 450 whites, and 800 South Sea islanders working on the plantations. Of the Polynesian natives about 10,600 live in the island of Upolu, 12,500 in Savaii, and the rest in Tutuila. The foreigners in 1895 comprised 203 British and Australasians, 120 Germans, 26 Americans, 26 French, and 25 others. In 1899 there were about 475 foreigners.

The total value of imports in 1897 was 1,384,446 German marks—747,751 marks by German, 217,317 marks by English, 220,756 marks by American, and 198,622 by other houses. The value of exports was 1,004,632 marks, of which the value of 910,018 marks was exported by German, 352,213 marks by English, 33,651 marks by American, and 5,750 marks by other houses. The exports consist of copra, the pith of the palm tree, cotton, cacao, coffee, bamboo, and fruits. Most of the imports, including beer, woollens, wines, table delicacies, coal, umbrellas, ready-made clothing, and hardware, are for the use of the foreigners settled in the islands, most of whom reside in Apia. Apia was visited in the course of 1897 by 58 steamers, of 76,369 tons, and 22 sailing vessels, of 5,367 tons.

The taxation of the foreign population yielded 110,822 marks in 1897, of which 69,706 marks were import duties, 16,640 marks export duties, 8,025 marks Government taxes, and 16,451 marks municipal taxes. Of the total Germans paid 72,966 marks, English 11,801 marks, Americans 14,835 marks, and others 11,220 marks.

Provisional Government.—In the last days of 1898 Chief-Justice Chambers held court to decide the rival claims to the kingship of Malietoa Tanu, son of the late King, and Mataafa, whose party was twice as numerous, but who was de-

barred as a former rebel, who had been allowed to return from exile in the Marshall Islands on the condition that he should never again take part in Samoan politics. The American, English, and German consuls were present until the German consul withdrew, saying that the chief justice was not conducting the investigation properly and that the question should be decided by popular vote. The chief justice pointed out that the Supreme Court was the tribunal appointed by the provisions of the Berlin treaty. His life being openly threatened, the American and British flags were hoisted together over his residence, the German consul refusing to associate himself with his colleagues in this act of protection. On Dec. 31 the chief justice decided in favor of the claims of Tanu and against those of Mataafa. The American and British consuls intimated their acquiescence in the decision, but the German consul never acknowledged the receipt of the court's decree.

The German officials encouraged the supporters of Mataafa to resist, and German merchants offered to supply arms. Having as his military adviser a German ex-officer named Von Bülow, Mataafa mustered his 4,000 warriors on Jan. 1. Tanu's fighting force was only half as strong. When hostilities were seen to be inevitable, Capt. Sturdee, of the British war vessel Porpoise, sent 25 bluejackets ashore to guard the residence of the chief justice. Mataafa's men occupied the roads leading to Apia, drove the loyal natives back upon the capital, and finally hemmed them in and entered the town. Tanu was saved from capture by the British naval commander and the American and British consuls, who escorted him to a mission building, in which 600 of his people had already taken refuge. Fighting continued in the streets all the afternoon, and toward night Mataafa's victory became assured. Tanu and Tamasese, the Vice-King, escaped to the Porpoise, to which 1,200 of the defeated warriors fled on their boats. Capt. Sturdee emphatically refused to give up Tanu and Tamasese to Mataafa. For two days burning and plundering went on in Apia and the surrounding country. On Jan. 4 the American and British consuls decided in the interests of the protection of life and property to open negotiations with the successful rebels and to acknowledge Mataafa as *de facto* King. A provisional Government was formed, composed of Mataafa and 13 chiefs, with Dr. Johannes Raffel, the German president of the municipal council, who had taken a prominent part on Mataafa's side, at its head as executive chief. His first official act was to issue a decree proclaiming himself acting chief justice. Mr. Chambers having taken refuge on the British war vessel. He took the ground that, aside from the flight of Chief-Justice Chambers, the old Government was superseded by the provisional Government, which the chief justice did not recognize and in which he had no part, and which therefore could not recognize his judicial authority without stultifying itself by calling its own in question. In taking this course Dr. Raffel was strongly supported by the German consul and residents. On Jan. 9 the German consul general, Rose, issued a proclamation stating that it was legally impossible for Mr. Chambers to continue in the office of chief justice in a government constituted in consequence of the violent overthrow of his decision, and that the president of the municipality would therefore under the treaty fill the office during the temporary vacancy. The American and British consuls protested energetically, and the British naval commander gave notice that

Chief-Justice Chambers would hold court under the protection of the British guns, which would open fire if resistance were offered. Capt. Sturdee explained that in thus upholding the authority of the chief justice his motive was to assert and protect the rights of Great Britain and the United States in Samoa. On this intimation the provisional Government withdrew the guard posted at the courthouse, and on the appointed day Chief-Justice Chambers, accompanied by the American and British consuls and escorted by a guard of bluejackets, approached the courthouse. Dr. Raffel and the German consul protested and refused to open the door, which was broken, and the chief justice took his seat and read a decree condemning the unauthorized, unlawful, and rebellious proceedings of the provisional Government.

The United States Government, which had recently contracted for the construction of a coal-station at Pago Pago harbor, ordered Rear-Admiral Kautz to proceed to Samoa on the Philadelphia. The Malietoa chiefs who were captured by Mataafa's men were banished to Tutuila, where they were welcomed by the people. Fighting continued in Upolu outside of Apia. The Mataafa people looted the houses of the defeated party and destroyed what they could not carry away, but sometimes their opponents overpowered their bands in the bush. A German resident of Apia, named Grossmühl, having shown his contempt for the authority of the chief justice after it was restored by breaking the windows of the courthouse, Chief-Justice Chambers had him arrested and imposed a fine and sentenced him to imprisonment. By direction of Dr. Raffel the German chief of police released the prisoner, and the German consul protested against the action of the chief justice as an infringement of the rights of the consulate. The British and American consuls held that the chief justice had jurisdiction in the matter, and they declined to hold further intercourse with the German consul or the municipal president except in writing unless an apology were offered for their behavior toward the chief justice. Dr. Raffel was cited to answer for contempt of court, and the German consul protested that this was an invasion of his consular jurisdiction. Otherwise he recognized the restored authority of the chief justice under instructions from his Government. Mataafa refused to let the natives deal with the British cruiser while Tanu and Tamasese and the chief justice were on board, but the threatening attitude of Capt. Sturdee impelled him to revoke his orders and to make an apology.

Mataafa and his followers did not entirely trust the Germans, who were formerly his chief enemies, and many of the people who at first declared for the experienced Mataafa in preference to the youthful Tanu began to waver when they saw that the old chief could not obtain the recognition of the English and American governments and might be abandoned by the German Government. All the inhabitants of Tutuila and half those of Savaii were on the side of Malietoa Tanu. There was little prospect of the settlement of the question without protracted civil war, even after the protecting powers should come to an agreement. The dispute was complicated with missionary rivalries, Mataafa being a Catholic and Tanu a Protestant. While awaiting the decision of the three powers as to who should be King the sentiment in Upolu, which had been preponderantly in favor of Mataafa, veered round to the cause of Tanu, and many chiefs deserted Mataafa. Still his partisans were

greatly in the majority on the principal island. They would not recognize the supreme court or bring suits before the chief justice. Mataafa's provisional Government taxed the people heavily and imposed fines on adherents of Tanu. In Savaii the soldiers of Mataafa threatened to burn Malietoa villages unless the people sent taxes and recruits to support Mataafa. A British cruiser visited the island and threatened to shell the Mataafa villages if the peace were disturbed. The British and American consuls issued proclamations threatening to take strong action if the provisional Government interfered with the Malietoans. The German consul issued a proclamation upholding the provisional Government and denouncing the action of his colleagues. Dr. Raffel was recalled by the German Government and left Samoa. Admiral Kautz arrived on the Philadelphia.

Negotiations for the settlement of the Samoan difficulties, carried on by the representatives of the American, English, and German governments, were conducted in Washington and Berlin. A basis was sought for the alteration of the Samoa act of 1889, which was considered unsatisfactory and impracticable by all three governments. A petition of 61 German residents of Apia complained that English was used in the courts; that they paid the greater part of the taxes and customs dues, yet were deprived of influence by a hostile combination of English and American officials; that the natives would not pay the poll tax because the chief justice ignored their customs; therefore they prayed the German Government to proclaim a protectorate over Samoa. The German Government protested against any action of the American and British consuls in which the German consul did not concur, as the Berlin treaty makes the unanimity of the representatives of the three powers an essential condition of any decision affecting the administration of the islands. The grounds for this protest were furnished by cabled instructions from Washington to the American admiral to act in accordance with the decision arrived at by any two of the representatives of the powers in default of unanimity. The American Government in its reply recognized the necessity of unanimity under the treaty as a condition of a settled policy or permanent action, and said that any action taken by the admiral on the agreement of a majority of the representatives of the powers when an emergency should arise rendering delay dangerous would be subject to ratification or adjustment by the unanimous vote of the three powers at the earliest possible moment, no permanent arrangement being admissible without such unanimous vote.

When Admiral Kautz arrived at Apia he found existing a state of affairs bordering on anarchy. The decrees of the Supreme Court could not be enforced, and the lives of the chief justice and other Americans were in danger. Mataafa had a large force of armed men surrounding Apia, and his followers defied the constituted authorities. There was constant danger of an outbreak, in which the lives of Americans and British, as well as those of the followers of Malietoa Tanu, would be sacrificed. Admiral Kautz called a meeting of the consular representatives and naval commanders of the three powers to discuss means of ending these conditions. The German representatives did not attend the meeting. By the decision of the American and British representatives the adherents of Malietoa Tanu who had been banished to other islands were brought back and their arms were restored to them. A proclama-

tion was issued by Admiral Kautz declaring Mataafa's Government to be illegal, and calling upon the Mataafa chiefs to disperse their forces and return to their homes, threatening bombardment if they did not withdraw from the vicinity of Apia. On March 13 Mataafa evacuated Mulinu, the native capital, which was fortified by the Americans for the reception of the Malietoans that the British ship *Royalist* had brought from other islands. After the German consul had issued a counter-proclamation, saying that Admiral Kautz's proclamation was untrue and that he should uphold the provisional Government, Mataafa assembled his forces and hemmed in the town. His men entered the municipality, killed an American marine and three British sailors, barricaded the streets, and seized British houses. An ultimatum was sent to them on March 14, saying that if they did not evacuate the town in twenty-four hours they would be shelled. A bombardment was first opened on villages along the shore, some of which took fire. Marines took possession of the town, which the rebels attacked in the night of March 16, killing an American sentry. The bombardment was kept up for eight days, the whites taking refuge on the war ships. When a third British war ship arrived, the cruiser *Tauranga*, the British and American consuls issued a proclamation stating that they would give Mataafa a last chance to submit. The French priests tried to induce him to give up, but all efforts failed. The Mataafans continued to pillage the property of foreigners and destroyed bridges and barricaded roads. With the aid of the Malietoans, British and American sailors attempted to clear the country around Apia. A party of Mataafans was attacked and put to flight on March 29 at Maguigui. One of the native auxiliaries was seen carrying the head of one of the enemy, and the British officer commanding, threatening to shoot any man found taking heads, induced Malietoa Tanu to issue a proclamation forbidding the practice. The German consul wrote to Admiral Kautz, asking if the American and British commanders countenanced decapitation by their savage allies, and elicited the reply that if the German consul had not resisted the lawful decision of the Supreme Court there would have been no bloodshed, and that the barbarous Samoan custom first became known to the world ten years before when the chief Mataafa, whom the German consul was now upholding, had cut off the heads of brave German sailors.

Armed cutters destroyed villages and boats belonging to Mataafa's party along the coast, and a flying column was sent out from Apia into the bush daily. On April 1 a force of 214 British and Americans, commanded by Lieut. Freeman of the *Tauranga*, was caught in an ambush on a German plantation at Vailele. When the rebels opened fire from three sides the friendly natives ran away, but the marines and sailors stood their ground until their machine gun got jammed, and finally retreated in good order after killing nearly 50 rebels and wounding many. Lieut. Angel F. Freeman and two British seamen were killed and two were wounded, and of the Americans Lieut. Philip Lansdale of the Philadelphia and Ensign John Monaghan, who attempted to rescue him, were killed, also two seamen, and five were wounded. The savages carried off the heads of the slain, according to their practice, but these were recovered by French priests. The German manager of the plantation was arrested and carried as a prisoner on board of a British man-of-war on the charge of having incited the natives to attack the British and

American column. On March 23 Malietoa Tanu was installed as King of Samoa at Mulinu'u in the presence of the American and British representatives, the German officials taking no part in the ceremony. The Germans objected on the ground that the provisional Government was constituted by the unanimous vote of the three consuls, and could not be disturbed unless all three concurred. Admiral Kautz held that it was accepted provisionally, and that by carrying out the decision of the chief justice the situation was brought into accord with the Berlin treaty.

The officers and men of the German cruiser Falke took no part in the operations, the declared policy of the German Government having been from the first not to interfere in the internecine conflicts of the islanders. When the German ex-Lieut. Von Bülow set out with an expedition of natives in boats to take possession of Savaii the Falke compelled the boats to turn back. Admiral Kautz stopped a German schooner that attempted to steal out of the harbor. On April 15 Lieut. Gaunt and a party of 100 men from the Porpoise, after landing at Muliangi, were compelled to retire to their ship under a heavy fire, but returned when the Malietoan natives attacked the Mataafans and drove them from their village. Instructions were sent to Admiral Kautz from Washington ordering him to preserve the *status quo*; and when these arrived he retired on the Philadelphia to Pago Pago, leaving the British to carry on the operations against Mataafa alone. The Mataafans occupied Vailima, where they were unsuccessfully attacked on April 17 by Lieut. Gaunt with a party of trained natives, aided by friendlies. The British continued to bombard villages on the northern coast of Upolu. The British commander also ceased his intervention on receiving instructions to confine himself to the protection of life and property. Hostilities among the natives were suspended also when the consuls informed them of the coming of the commission. Capt. Stuart, of the Tauranga, sent orders to Mataafa on April 23 that he should withdraw his forces outside of a zone 12 miles long and 6 miles broad. He replied defiantly, refusing to withdraw unless the German consul and naval commander agreed. Admiral Kautz and Capt. Stuart then sent an ultimatum, and after guns had been landed at Mulinu'u Mataafa agreed to withdraw. Lieut. Gaunt with his brigade of 900 natives patrolled the prescribed area, and the truce was observed outside of the lines by both parties of natives. The Mataafans encamped at Falenta and proceeded to build forts outside the lines, within which Tanu and Tamasese with their chiefs governed, having a force of 3,500 men, including those brought over from the other islands and comprising half the adult males of Samoa, of whom 2,700 were armed with rifles. The Mataafans declared that if the commission confirmed Tanu as King they would never recognize him, but would resume the war.

The Joint Commission.—The result of the diplomatic negotiations was the acceptance of the German proposition to appoint a joint high commission to study the Samoan question on the spot. The German Government proposed that the commissioners should settle everything by a unanimous agreement on all points. According to the American and English view, the main questions should be referred to the respective governments, and on minor details a majority vote of the commissioners ought to decide. The commissioners were empowered to examine and report upon the state of affairs in Samoa and to assume temporarily the government of the

islands. The United States first accepted the proposition, and a few days later England agreed, that the decisions of the commission must be unanimous in regard to the provisional administration of the islands. If on any point the commissioners were unable to come to an agreement, they were directed to refer to their governments for instructions. The consular and naval officers of the three powers were instructed to obey the orders of the commission. The conclusions arrived at by the commissioners as to the future government of the islands were expected to be followed by the three governments if adopted unanimously by the commission, but the powers of the commission in this respect were only advisory. The commissioners were to furnish separate reports on the recent events, and to make recommendations, either unanimously or separately, as to the future government of the islands.

President McKinley selected Bartlett Tripp to be the United States commissioner. C. N. E. Elliot was appointed by the British Government and Baron Speck von Sternburg by the German Government. The international commissioners arrived in Apia on May 13. Malietoa Tanu, with Tamasese, and Mataafa both visited the commissioners, who recognized neither as King, and said they had power to establish a government with or without a king. The Germans for the first time acted with the representatives of the other powers, sending a guard ashore. In obedience to a proclamation of the commissioners, both the Malietoans and the Mataafans surrendered their arms. Admiral Kautz departed on the Philadelphia on May 21. The British consul, Ernest Maxse, and the German consul, F. Rose, to whose rivalry and ambition the natives attributed the troubles, were recalled, and left Samoa on June 17. American engineers arrived for the purpose of erecting a jetty at Pago Pago, and stores of coal were deposited there. The German peace officer Marquardt, appointed by the provisional Government, and the German manager of the Vailele plantation, both of whom had been detained on the Falke at the request of the English authorities, were released.

The commissioners on June 10 issued a proclamation accepting as valid and binding Chief Justice Chambers's decision recognizing Malietoa Tanu as the rightfully elected King according to native customs. He was, however, induced to abdicate, the commissioners having decided to abolish the kingly office. Mr. Chambers having been confirmed in the office of chief justice, he too resigned. The commissioners appointed a provisional Government, consisting of the consular representatives of the three powers, with Dr. Wilhelm Solf, the new German municipal president, as adviser, the majority to act in all cases where unanimity is not required by the Berlin act.

The commissioners in their investigations found that the kingship depended upon the grant of certain titles by different districts, which were in the gift of small bodies of chiefs, who so often disagreed that it was not unusual for two candidates to be elected at the same time and to decide their claims by force of arms. Even the provision of the Berlin treaty that the chief justice should decide had not averted war. The King in recent years had possessed no authority or practical power to even collect taxes outside of the municipality. The greater part of the population was in permanent rebellion against him, and the mere fact that orders were issued through him was enough to provoke disobedience in certain districts. For many years there had been no law or government other than native custom

outside of the limits of Apia. Murder and other serious crimes, when committed by men of rank, remained unpunished, and the Supreme Court and the nominal Government at Mulinuu had been alike powerless. The importance and bitterness of the disputes arising from the election of a king and his subsequent efforts to exert his authority were complicated by rivalries between the foreign nationalities among themselves and their disposition to take sides in native politics. The insufficient enforcement of the customs regulations allowed unscrupulous traders to distribute large numbers of arms among the native population rent by political factions and ready to fight both one another and Europeans. Even the most important chiefs acquiesced in the abolition of the kingship, which was not an ancient institution. The commissioners recommended its permanent abolition, and in its place they proposed to create a native system of government, by which the islands should be divided into administrative districts, corresponding with those recognized by Samoan usage, for each of which a chief would be responsible, and these chiefs should meet annually in Apia in a native council to discuss matters of general interest and make recommendations to the Government. Native courts would be allowed to punish minor crimes in accordance with native law and custom. To guard against strife between rival claimants for the office of provincial chief it was recommended that the head of the administration should have power to appoint the provincial governor or chief in case of dispute. Because of evils arising from rivalry and mutual hostility of the different nationalities, which formed two parties in the municipal council and decided all questions on partisan and national considerations, the commissioners proposed that an administrator be appointed by the three powers acting in concert, or, in the event of their disagreement, chosen by some disinterested power, to be assisted by delegates of the three protecting governments, who might exercise consular powers. These four would form a legislative council, with power to modify existing laws and ordinances, to alter the boundaries of districts and the details of native government, etc. Consular jurisdiction would be abolished, and the chief justice empowered to decide cases between Europeans and between natives and Europeans, and also to try natives when charged with serious crimes against one another. A municipal magistrate would act as a court of the first instance within the limits of the municipality. The treaty provision against the importation of firearms and the sale of liquor to natives, which had become a dead letter, the commissioners proposed to make more stringent. The commissioners did not think it possible to do away with the disturbing influence of national jealousies under a tripartite administration, and they all agreed that the only natural and normal form of government for the islands, and the only system capable of insuring permanent prosperity and tranquillity, was the government by one power. The task of the commission was to find a workable system under the tripartite arrangement. The chief justice, to be selected in the same way as the administrator, would have power to interpret the amended act, the powers reserving the right to modify or revoke judicial, executive, or legislative decisions on certain political or international questions.

The commissioners visited every district of the islands, and held meetings of the natives. They brought about a reconciliation between the adherents of the Tanu and Mataafa parties, and

learned the views of the people in regard to the form of native government that would be acceptable and best adapted to their requirements. After having decided upon the amendments necessary and proper to be made in the Berlin general act, the commissioners called a meeting on July 14 of all the leading and common chiefs of both the Malietoa and Mataafa factions at Apia. At this meeting 450 chiefs of all ranks were present. The commissioners explained the general propositions contained in their amendments, and these were agreed to and adopted and signed by 13 chiefs delegated by each party. When Chief-Justice Chambers returned to America on July 14 Dr. Wilhelm Solf, the new German municipal president, claimed that the office devolved upon him, but waived his rights at the instance of the German commissioner, and the commission appointed Luther W. Osborn, the American consul general, to act as chief justice until the nomination of a permanent incumbent under the new Constitution. The commission advised the abolition of the office of municipal president, the division of the municipality into three districts instead of two, the election of a mayor by the six councilors, and the submission of the regulations passed by the municipal council to the administrator for approval, instead of to the consular representatives. After appointing Dr. Solf as adviser to the new provisional Government, consisting of the consuls of the three powers, the high commissioners departed on July 18. It was not till a week later that the consular board issued a proclamation assuming the government. The Malietoans failed to obey the orders of the commissioners to leave Mulinuu and dissolve their Government. The Mataafans complained, and the consuls ordered them anew to go to their homes, but failed to give effect to their proclamation.

Division of Samoa between Germany and the United States.—The three governments, adopting the conclusion of their commissioners that the *tridominium* in any form would not lead to permanent tranquillity, negotiated on the basis of a partition of the islands, and on Nov. 14 concluded the following convention:

"The commissioners of the three powers concerned having in their report of the 18th July last expressed the opinion, based on a thorough examination of the situation, that it would be impossible effectually to remedy the troubles and difficulties under which the islands of Samoa are at present suffering as long as they are placed under the joint administration of the three governments, it appears desirable to seek for a solution which shall put an end to these difficulties, while taking due account of the legitimate interests of the three governments.

"Starting from this point of view, the undersigned, furnished with full powers to that effect by their respective sovereigns, have agreed on the following points:

"ARTICLE I.—Great Britain renounces in favor of Germany all her rights over the islands of Upolu and of Savaii, including the right of establishing a naval and coaling station there, and her right of extraterritoriality in these islands. Great Britain similarly renounces, in favor of the United States of America, all her rights over the island of Tutuila and the other islands of the Samoan group east of 171° longitude east of Greenwich, Great Britain recognizes as falling to Germany the territories in the eastern part of the neutral zone established by the arrangement of 1888 in West Africa. The limits of the portion of the neutral zone falling to Germany are defined in Article V of the present convention.

"ART. II.—Germany renounces in favor of Great Britain all her rights over Tonga Islands, including Vavau, and over the Savage island, including the right of establishing a naval station and coaling station, and the right of extraterritoriality in the said islands. Germany similarly renounces, in favor of the United States of America, all her rights over the island of Tutuila and over the other islands of the Samoan group east of longitude 171° east of Greenwich. She recognizes as falling to Great Britain those of the Solomon Islands, at present belonging to Germany, which are situated to the east and south-east of the island of Bougainville, which latter shall continue to belong to Germany, together with the island of Buka, which forms part of it. The western portion of the neutral zone in West Africa, as defined in Article V of the present convention, shall also fall to the share of Great Britain.

"ART. III.—The consuls of the two powers at Apia and in the Tonga Islands shall be provisionally recalled. The two governments will come to an agreement with regard to the arrangements to be made during the interval in the interest of their navigation and of their commerce in Samoa and Tonga.

"ART. IV.—The arrangement at present existing between Germany and Great Britain and concerning the right of Germany to freely engage laborers in the Solomon Islands belonging to Great Britain shall be equally extended to those of the Solomon Islands mentioned in Article II, which fall to the share of Great Britain.

"ART. V.—In the neutral zone the frontier between the German and English territories shall be formed by the river Daka as far as the point of its intersection with the ninth degree of north latitude, thence the frontier shall continue to the north, leaving Morozugu to Great Britain, and shall be fixed on the spot by a mixed commission of the two powers in such manner that Gambaga and all the territories of Mamprusi shall fall to Great Britain, and that Yendi and all the territories of Chakosi shall fall to Germany.

"ART. VI.—Germany is prepared to take into consideration, as much and as far as possible, the wishes which the Government of Great Britain may express with regard to the development of the reciprocal tariffs in the territories of Togo and of the Gold Coast.

"ART. VII.—Germany renounces her rights of extraterritoriality in Zanzibar, but it is at the same time understood that this renunciation shall not effectively come into force till such time as the rights of extraterritoriality enjoyed there by other nations shall be abolished.

"ART. VIII.—The present convention shall be ratified as soon as possible, and shall come into force immediately after the exchange of ratifications."

An explanatory declaration was exchanged at the same time:

"It is clearly understood that by Article II of the convention signed to-day Germany consents that the whole group of the Howe Islands, which forms part of the Solomon Islands, shall fall to Great Britain.

"It is also understood that the stipulations of the declaration between the two governments signed at Berlin on the 10th April, 1886, respecting freedom of commerce in the western Pacific apply to the islands mentioned in the aforesaid convention.

"It is similarly understood that the arrangement at present in force as to the engagement of laborers by Germans in the Solomon Islands per-

mits Germans to engage those laborers on the same conditions as those which are or which shall be imposed on British subjects nonresident in those islands."

Tutuila, the island that falls to the United States, has an area of only 55 square miles, but contains the only safe harbors in Samoa, of which Pago Pago, almost bisecting the island, has been occupied as an American coaling station. With the little adjacent islands, Tutuila has about 4,000 inhabitants, mainly engaged in fishing. The island is mountainous in the interior, and thickly wooded, and is considered the most fertile of the Samoan group. Sugar, coffee, cotton, and the cocoanut palm are the most promising products.

SANTO DOMINGO, a republic in the West Indies, a Spanish colony before independence was achieved in 1844, occupying the eastern part of the island of Hayti. The Congress is a single chamber of 24 members, elected by direct qualified suffrage for two years, 2 members for each of the 6 provinces, 2 for each of the 6 maritime districts. The President is elected for four years by an electoral college. Gen. Ulisses Heureaux was elected President for the term ending Feb. 27, 1900, having already served three terms in succession. The Vice-President is Gen. Wenceslao Figuereo. The Cabinet at the beginning of 1899 was composed as follows: Secretary of the Interior and Police, Gen. J. Pichardo; Secretary of Foreign Affairs, Enrique Henriquez; Secretary of Justice and Public Instruction, S. E. Valverde; Secretary of Finance and Commerce, J. Alvarez; Secretary of Fomento and Public Works, Gen. T. Cordero; Secretary of War and Marine, Gen. T. D. Morales.

Area and Population.—The area of Santo Domingo is 18,045 square miles. The population is estimated at 610,000. Santo Domingo, the capital city, has 14,150 inhabitants. At the head of each province and maritime district is a governor. The language of the country is Spanish. Almost the entire population is of negro or mixed blood. The state religion is Roman Catholicism, but all creeds are tolerated.

Finances.—The revenue, which is raised mostly by duties on both imports and exports, amounted in 1897 to \$1,601,294 in gold, against \$1,545,450 in 1896, \$1,382,500 in 1895, \$1,378,450 in 1894, \$1,115,500 in 1893, and \$652,500 in 1892. Gen. Heureaux has kept up an army of 2,500 men, well drilled and equipped, which has swallowed up half the revenue. He also maintained 3 well-armed gunboats.

The foreign debt was consolidated in 1897 into \$13,325,000 of 2½-per-cent. and \$7,500,000 of 4-per-cent. bonds guaranteed by the customs duties and other assigned revenues, the collection of which was intrusted to the Santo Domingo Improvement Company of New York, which effected the conversion of the debt and undertook to complete unfinished railroads and other improvements. There are also unfunded liabilities bringing up the total indebtedness to nearly \$30,000,000. Before Gen. Heureaux seized the presidency in 1882 the principal debt was the Hartmont loan negotiated with the Rothschilds in 1868, and amounting to \$3,675,000 nominally, although only \$35,000 reached the treasury. President Heureaux raised a loan of \$3,850,000 in Hamburg, Amsterdam, and Brussels in 1888 and one of \$4,500,000 in 1890 in Amsterdam for railroad construction. All these loans were assumed by the American syndicate that undertook to complete the railroads, and this syndicate received \$1,250,000 of bonds for the gunboats, which cost only \$300,000, then \$1,500,000 of bonds when the French in-

demnity of \$400,000 was paid, and \$1,750,000 bonds additional to pay off \$700,000 of advances from the French bank, afterward incorporated by the syndicate as the national bank of Santo Domingo. These were 4-per-cent. bonds, and when the whole debt was consolidated at lower rates of interest the nominal amount was increased, but not a twentieth of the total sum was legitimately expended for public purposes.

Commerce and Production.—Over five sixths of the area of the country is fertile. The forests contain valuable woods and other products. Coffee and cacao are cultivated on an increasing scale, and banana plantations have been established with American capital. Sugar cane also is planted more extensively than heretofore, while the cultivation of tobacco has declined. There is no mining industry, although iron and copper are found, as well as coal, salt, and alluvial gold. About 45 per cent. of the imports come from the United States, 12 per cent. from the Danish West Indies, 11 per cent. from England and her colonies, 7 per cent. from France, 7 per cent. from Germany, and the rest mostly from Curaçoa, Belgium, and Italy. The total value of imports in 1896 was estimated at \$1,875,000, and of exports at \$2,885,000. The export of sugar was 86,866,240 pounds; of cacao, 4,308,820 pounds; of tobacco, 6,332,148 pounds; of coffee, 2,437,400 pounds; of molasses, 1,777,120 gallons; of divi-divi wood, 1,304,930 pounds; of mahogany, 264,254 feet; of other woods, 14,740 tons. The total imports in 1898 were \$1,694,280 and exports \$5,770,489. During 1898 the ports of Santo Domingo were visited by 544 vessels entered and 380 cleared.

Railroads, Posts, and Telegraphs.—The railroad from Samana Bay to La Vega, 62 miles in length, is being carried through to Santiago, and another line is to be built from Barahona to the Cerro de Sal, or Salt mountain. The length of railroads in operation in 1898 was 116 miles.

The post office handled 333,908 internal and 214,092 foreign pieces of mail matter in 1896. The length of telegraphs in 1896 was 430 miles. Several new lines were projected. The cable of the French company transmits foreign dispatches.

Revolution.—Formerly Mexican dollars constituted the principal currency. As these steadily depreciated, while the commerce of the country was mainly with gold-paying nations, President Heuraux, being urged thereto by the merchants and planters, had a law enacted in 1895 retiring the silver currency and declaring a gold basis. All customs dues were made payable in gold, and Mexican money was declared to be no longer current. There being but little gold in the country, a dearth of currency was felt immediately. A merchant and planter named Vicena, to whom the President was indebted, received permission to put into circulation for the payment of laborers and ordinary internal requirements the sum of \$2,200,000 in silver dollars and minor coins. They were minted in the United States, and contained at first 12, afterward only 8 cents' worth of silver. Although declared legal tender at 50 cents on the dollar in gold, the people would not accept them except at a heavy discount as soon as it became known that they were made of base metal. The scarcity of money was more and more severely felt, and to supply a circulating medium the National Bank was authorized in January, 1899, to issue \$4,200,000 of paper currency at the exchange rate of \$2 for \$1 of American gold or bills. It was guaranteed by the Government and declared redeemable in lawful money of the republic, but declared also to be itself lawful money. Congress appropriated

20 per cent. of the export duties for its redemption, a provision that carried little assurance, since the fund would not exceed \$125,000 a year. The National Bank is owned by the Santo Domingo Improvement Company, except one third of the stock, which was sold or given to President Heuraux. The new bills became known as Heuraux's money, and almost on the day of issue they dropped to four to one, falling soon to six to one, at which rate they were held as long as no more were put out. President Heuraux decreed that six to one should henceforth be the legal rate, and then began to issue more, upon which the rate fell till it was twenty to one, and merchants were afraid to accept the money, fearing that the emission was already much in excess of the authorized amount. The planters had agreed to pay laborers \$3.50 a day in currency for harvesting the sugar crop, but the prices of food and clothing rose to ten, to twenty times what they had been, and many storekeepers refused to take the bills at all. When the people began to starve the revolutionary spirit became rife. In May President Heuraux quit issuing the paper, and to check the rising anger of the people he announced that he would soon redeem the notes with gold at six to one. This remained an empty promise. He had so exhausted the credit of the Government by previous borrowings and financial mismanagement that he could no longer raise a loan on any terms. When he pleaded with merchants to accept the bills at six to one they demanded the redemption of the great quantity they had already taken in and could not get rid of.

Gen. Heuraux, taking what little gold he could get, determined to go into the most disaffected and hostile section of the interior and endeavor by publicly exchanging gold for bills and ostentatiously burning these to restore confidence among the common people and impress his enemies by his bravado. Taking only a small bodyguard, he journeyed on one of his naval vessels from Santo Domingo city to Samana Bay, from Sanchez to La Vega by rail, and thence on horseback to Moca. Arriving there, he was received by the municipalities with outward deference, but was alarmed to find that his orders were not obeyed. Still he went about courageously, giving gold coins to poor people, as was his custom. Suddenly he was surrounded by a band of conspirators and shot down by one of them. No one attempted to arrest the murderer, not even the members of the President's bodyguard who were present.

The American gunboat *Machias* and the cruiser *New Orleans* were ordered to Santo Domingo as soon as the news of the murder reached Washington, with orders to protect American lives and property in the event of public disturbances. The arrival of these war vessels had the effect of checking the machinations of some of the individual members of the Cabinet who aspired to the presidency and would have used force to realize their ambition except for the fear of American intervention. As it was, they united under the aged Vice-President in repressing the revolutionary movement against the existing system, each waiting for a favorable moment to unmask his own design. Rioting and shooting had begun in the streets of Santo Domingo, but ceased as soon as the *Machias* arrived.

The most popular and powerful candidate for the succession—one who had already fitted out expeditions and organized uprisings for the overthrow of Heuraux—was Juan Isidro Jimenez, the wealthiest and most enterprising of the Domini-

can merchants and planters. He had been an object of suspicion and jealousy to President Heuraux, and in consequence had lived in exile and had suffered losses through the discriminations of Government officials. He openly opposed the military despotism of Gen. Heuraux, and on May 31, 1898, he landed at Monte Christi from the United States steamer Fanita, having plenty of arms that he had obtained on the pretense of conducting an expedition to Cuba to supply the soldiers of Gomez. He expected to find 1,000 men ready, but his message had not been delivered to Gen. Toribo Garcia, and he was compelled to flee before the Government troops to his ship, and was arrested in the Bahamas on complaint of the United States consul, tried by a jury, and acquitted.

President Heuraux was murdered by Ramon Caceres, whose father was executed by his order in 1884. Gen. Figueroa, the Vice-President, immediately assumed the functions of President. Partisans of Gen. Jimenez who were living in exile at Cape Haytien prepared to enter Santo Domingo. Jimenez was in Havana. With a staff of Dominican and Cuban supporters he took passage at Cienfuegos, but was detained by order of Gen. James H. Wilson. Later he was released. War material had been collected on the east coast of Cuba, and he intended to conduct an expedition from Baracoa. Meanwhile his partisans rose at Moca. Caceres, who escaped to the mountains, raised 300 followers and entered San Francisco, the governor of which surrendered without a blow, although he had 150 men armed with repeating rifles. Business was suspended at the capital in consequence of the severe repressive measures taken by the Government to prevent an outbreak. Numbers of Liberals were put into prison every day. Five revolutionary generals occupied the towns of Guayabin, Sabaneta, Manzanillo, and Dajabon, which the Government troops abandoned. The insurgents were joined by 1,200 Dominicans from Hayti, who crossed the Yaqui river under fire of mitrailleuses and defeated the Government troops, killing 18. Gen. Francisco Liriano, who was ordered to march from Monte Christi to attack Gen. Ramon Pacheco at Dajabon, the revolutionary headquarters, was deserted when in front of the enemy by the main part of his command, and had to retire in haste. Gen. Pacheco next attacked the troops of Gen. Antonio and defeated them, inflicting a loss of 150 men and capturing two field pieces, losing only 13 of his own men. After this the revolutionists marched on Santo Domingo. The Government sent out commissioners to ascertain their demands. Porto Plata and all the other towns of the chief maritime district and nearly the whole of the interior were in their possession. On Aug. 30 they established a provisional Government in the city of Santiago, with Gen. Horacio Vasquez as President and Gen. Ramon Caceres as Minister of War. The general desire was that Gen. Jimenez should be the permanent President. The Government in Santo Domingo adjourned Congress. One city after another declared for Jimenez, and the governor of the province thereupon announced his allegiance to the cause of the revolution, and sent out the intelligence that the city had been taken by the revolutionists. There was no fighting except the few engagements with the trained soldiers of Gen. Heuraux that remained steadfast. On the day that the provisional Government was proclaimed and the revolutionists set out for Santo Domingo the Cabinet ministers had arms and ammunition loaded on schooners to be sent to Azua. The

people of the city collected together, demanded that the ministers should resign their posts, and broke into the palace and stoned the ministers' houses. The frightened ministers announced that they would turn over their powers to men selected by the citizens. Four were chosen by acclamation to act with the governor as a committee of safety until the arrival of the members of the provisional Government. Business and agricultural work were resumed and went on as usual, while the provisional President proceeded to the capital with an escort of horsemen. The town of Monte Christi did not surrender till Sept. 8. Provisional President Sanchez issued a proclamation declaring duties payable 70 per cent. in gold and 30 per cent. in national silver, and announcing that the value of paper money would not be decided until the meeting of Congress. This made paper no longer current, causing dissatisfaction, and therefore with the approval of Jimenez a fresh proclamation was issued announcing that paper would be accepted at the same rate as silver. When Gen. Jimenez arrived in the middle of September Gen. Sanchez resigned the presidency in his favor. An election was held later, in which Juan I. Jimenez was chosen President and Horacio Sanchez Vice-President for a term ending in 1903.

SERVIA, a kingdom in southeastern Europe. The legislative body is a single chamber, called the Skupshtina, composed of 198 members elected by the votes of all male Servians who pay 15 dinars, or francs, in direct taxes. The reigning King is Alexander I, born Aug. 14, 1876, who succeeded to the throne in 1889 upon the abdication of King Milan, his father, and assumed the government in person on April 13, 1893. The ministry, constituted on Oct. 23, 1897, was composed in the beginning of 1899 as follows: President of the Council and Minister of Foreign Affairs, Dr. Vladan Georgevich; Minister of Finance, Stevan D. Popovich; Minister of Commerce, Agriculture, and Industry, Sima Lozanich; Minister of the Interior, Jefrem A. Andonovich; Minister of Public Instruction and Worship, Andreas Georgevich; Minister of Justice, Costa N. Christich; Minister of Public Works, Gen. J. Atanatskovich; Minister of War, Col. D. Vutchkovich.

Area and Population.—The area of Servia is 19,050 square miles. The population at the census of Dec. 31, 1895, was 2,312,484, consisting of 1,186,594 males and 1,125,890 females. On Dec. 31, 1898, it was computed to be 2,413,694, comprising 1,240,105 males and 1,173,589 females. The number of marriages in 1898 was 22,521; of births, 84,789; of deaths, 55,300; excess of births, 29,489. Belgrade, the capital, had 59,259 inhabitants in 1898.

Finances.—In the budget for 1899 the total revenue was estimated at 68,824,500 dinars or francs, of which 22,035,000 dinars come from direct taxes, 6,000,000 dinars from customs, 3,850,000 dinars from excise, 2,500,000 dinars from courts of law, 19,461,000 dinars from monopolies, 6,200,000 dinars from state railroads, 660,000 dinars from instruction and sanitary funds, and 5,084,000 dinars from various sources. The expenditures were estimated at the total sum of 68,822,569 dinars, of which 1,200,000 dinars were for the civil list, 360,000 dinars for ex-King Milan's appanage, 76,810 dinars for court employees, 20,784,545 dinars for the service of the national debt, 150,000 dinars for the Skupshtina, 155,816 dinars for the Council of State, 341,400 dinars for general expenses, 2,722,051 dinars for pensions and subventions, 1,722,531 dinars for the Ministry of Justice, 2,937,366 dinars for the Ministry

of Worship and Public Instruction, 1,844,217 dinars for the Ministry of Foreign Affairs, 3,353,750 dinars for the Ministry of the Interior, 8,195,130 dinars for the Ministry of Finance, 15,754,613 dinars for the Ministry of War, 4,764,903 dinars for the Ministry of Public Works, Agriculture, and Commerce, 428,358 dinars for miscellaneous expenses, and 1,005,052 dinars for the Board of Audit.

The total debt on Jan. 1, 1899, was 416,912,807 dinars, of which 352,190,000 dinars were converted bonds of 1895, 29,785,000 dinars lottery bonds of 1881, 10,012,500 dinars revenue bonds of 1886, 3,750,000 dinars a Russian loan, 1,352,000 dinars a loan secured on the salt monopoly, 9,640,000 dinars one secured on the tobacco monopoly, 924,500 dinars a railroad loan, and 9,258,807 dinars borrowings from the national bank.

Commerce and Production.—In Servia nearly nine tenths of the men are farmers owning from 10 to 30 acres or more of glebe land, orchard, and pasture. The crops are Indian corn, wheat, barley, rye, oats, tobacco, hemp, flax, wine, prunes, and other fruits. The forests belong to the Government and the villages, and are cut methodically, cask staves being exported to Hungary and France. Pigs, cattle, and sheep are reared for export. The Government and various companies mine coal, iron, lead, zinc, antimony, silver, etc. The total value of imports in 1898 was 41,102,000 dinars, and of exports 56,991,000 dinars. The imports of horticultural and agricultural produce were 4,116,000 dinars, and exports 22,259,000 dinars; imports of food and drink 1,357,000 dinars, and exports 1,824,000 dinars; imports of colonial goods, 3,368,000 dinars; imports of animals and animal products 451,000 dinars, and exports 26,744,000 dinars; imports of hides, leather, and rubber 2,798,000 dinars, and exports 3,279,000 dinars; imports of wool and woollens 1,483,000 dinars, and exports 157,000 dinars; imports of seeds and seed products 1,483,000 dinars, and exports 157,000 dinars; imports of wood and wood manufactures 2,407,000 dinars, and exports 495,000 dinars; imports of metals 4,352,000 dinars, and exports 596,000 dinars; imports of stone, clay, and glass products 2,523,000 dinars, and exports 319,000 dinars; imports of paper, 984,000 dinars; imports of drugs, dyes, and chemicals 1,320,000 dinars, and exports 147,000 dinars; imports of machines and instruments 1,320,000 dinars, and exports 23,000 dinars; imports of cotton and linen goods 6,884,000 dinars, and exports 959,000 dinars; imports of silk goods, 660,000 dinars; imports of hardware, 1,111,000 dinars; imports of trimmings, embroideries, and bonnets 2,703,000 dinars, and exports 2,703,000 dinars; imports of fertilizers 2,000 dinars, and exports 71,000 dinars. The values in dinars of imports from and exports to different countries in 1898 are given below:

COUNTRIES.	Imports.	Exports.
Austria-Hungary	22,965,000	50,982,000
Germany	4,282,000	2,248,000
Turkey	1,806,000	1,989,000
Great Britain	3,887,000	
Roumania	2,357,000	200,000
Bulgaria	1,526,000	956,000
France	652,000	378,000
United States	1,053,000	
Italy	739,000	3,000
Belgium	546,000	
Switzerland	507,000	14,000
Greece	353,000	46,000
Russia	291,000	
Bosnia	39,000	167,000
Total	41,102,000	56,991,000

The Army.—Obligatory military service was decreed in 1896, commencing at the age of twenty-one and lasting two years with the colors, eight years in the reserve, ten years in the first ban, and ten years in the second ban. The authorized strength of the active army in 1897 was 1,248 officers and 21,200 men, of whom 14,000 were infantry, 1,400 cavalry, 4,000 artillery, 1,000 engineers, 300 train, and 500 sanitary troops. The number of horses was 4,846; of field guns, 192. The war effective is calculated at 5 divisions of 22,049 men, making 110,245 men in the regular army.

Railroads, Posts, and Telegraphs.—The length of railroads in operation is 377 miles, consisting of the Servian section of the international railroad to Constantinople and branches to Pirot, Velika Plana, and Kraguyevatz. There are 2,526 miles of telegraph, with 5,042 miles of wire. The number of dispatches in 1898 was 996,094, of which 838,828 were internal, 131,082 international, and 26,184 in transit. The postal letter traffic in 1898 was 11,222,000 in the internal, 3,864,000 in the foreign, and 1,513,000 in the transit service, and of registered letters and postal orders 310,000, with 101,728,000 francs, were sent in the internal, 151,000, with 57,644,000 francs, in the external service, and 671,000, with 30,440,000 francs, in transit.

Political Affairs.—The rivalry of the two native Servian dynasties, the Karageorgevichs and the Obrenovichs, which have alternately seized the supreme power, the contest between Austria and Russia for a predominating influence in Servian affairs, the rival ambitions of the Servian King and the Prince of Montenegro to unite all Serbs under one scepter, and the fierce and vindictive passions roused by the struggle for place between the leaders of the Radical, Liberal, and Progressive parties have kept the kingdom in a constant turmoil, and have retarded its political, social, and economic development, permitting it to be outstripped by Bulgaria and Roumania, which have inferior natural advantages. The Radical party, which represents the bulk of the peasant population, has always been bitterly hostile to King Milan, subservient to Russian influences, and clamorous for a reduction of the army and the substitution of a peasant militia, which would reduce taxation and relieve the people from onerous military service and at the same time curb King Milan's power, who has always been popular with the army, although he led it to defeat. The Liberals, who draw their main strength from the town population, have no definite political principles aside from a general leaning toward Russia. The Progressives have supported King Milan's policy of favoring Austrian aid and influence, being jealous of Russian interference with national independence, and looking to western Europe both for the impetus to political and intellectual progress and for the stimulus and the necessary capital for economic progress. While King Milan reigned he was engaged in an incessant conflict with his many foes, and in the end he succumbed to the Radicals, aided by Russian influence and the friends of his divorced consort. On being promised a liberal yearly allowance, he agreed in 1888 to go into perpetual exile. It was decided that Queen Natalie should likewise live abroad, and that the heir apparent should be proclaimed King, with M. Ristich, the Liberal leader, as regent. Queen Natalie, however, came back and was only expelled after a desperate resistance on the part of her adherents in 1891. The Radical party, under the lead of M. Pashich, then took the helm, and proceeded to carry out

to its ultimate conclusions the liberal Constitution extracted from King Milan at his abdication. Radical rule was wrecked on the rock of finance, and when the Government became insolvent, and a system of foreign control had to be accepted in regard to a part of the revenue, M. Ristich succeeded in ousting the Radicals and gaining the offices for his own party, which set to work exterminating the Radicals in order to make the tenure secure. The country was drifting toward civil war when the young King, on April 1, 1893, declared himself of age, dismissed the regents, and abrogated the Constitution. Ex-King Milan, who had suggested the *coup d'état*, was recalled from banishment, and, though residing much of the time abroad and keeping in the background at first, guided with his cunning hand the policy of his son, becoming gradually bolder, until, having effected a formal reunion with Queen Natalie, he was appointed generalissimo of the Servian army in 1898. At the elections which followed the Radicals were only allowed to send one Deputy to the Skupshtina, and he immediately resigned.

In the session of the Skupshtina which closed on Jan. 23, 1899, a general tariff was adopted, with other measures designed to strengthen the finances of the state. The Russian minister, M. Jadovski, lost no opportunity of showing dissatisfaction with the presence of ex-King Milan, who in violation of his compact to reside abroad and interfere no more in Servian affairs was now the supreme military dictator. Early in March M. Jadovski departed from Belgrade, leaving Russian interests in the care of a *chargé d'affaires*.

In the spring border fights occurred between Servian peasants and their Mohammedan neighbors, who had driven many of the Christians out of the Turkish vilayet of Kossovo and forced them to emigrate into Servia. This engendered conflicts, in which the frontier was violated on both sides. A serious affray took place on June 16, when a large body of Albanians gathered threateningly on the border was fired upon by Servians in ambush and Turkish *nzams* from the neighboring fort joined in the fighting. The Servian Government dispatched 8 battalions to the spot, informing the Porte that it was compelled to provide protection for the frontier, since Turkish promises to respect it had proved untrustworthy. The Turkish Government replied that the Ottoman troops had only acted in self-defense when they were fired upon and some of them killed by Servian gendarmes. The Albanians, who had recently been supplied with Mauser rifles from the Turkish arsenals, returned to their homes, and the incident was closed, without the blame being fixed on either side, by the appointment of a joint commission to prevent further disorders.

On July 6, as ex-King Milan was driving through one of the principal streets of Belgrade, a political adventurer fired at him twice with a revolver, grazing his body. His aid-de-camp interposed and received a wound, and as the would-be assassin was seized he fired a fourth shot at his own head, but missed. He was a Bosnian, who had served in the fire department, a young man named Giuro Knezevich, who implicated several of his acquaintances and told a story of going to Roumania and receiving a thousand imperials from a stranger, presumably the Karageorgevich pretender or his agent. Prince Alexis Karageorgevich, son-in-law of Prince Nicolas of Montenegro, was heard of at this time in a Hungarian town near the Servian frontier. A suspicious character who gave the name of

Krezovich, a Turkish subject, had recently been arrested and had given information against prominent members of the Radical party. Other informers told of peasants who had predicted a change of Government in a few days. King Milan assumed that there was a widespread conspiracy to overturn the Obrenovich dynasty in favor of Peter or Alexis Karageorgevich or the Prince of Montenegro. He assumed that all his enemies and critics were involved in it. Martial law was proclaimed, and all the leaders of the Radical party and the independent writers and speakers who had expressed disapproval of the Government were arrested, as well as the persons incriminated by Knezevich's confession and the villages who hoped for the return of the Radicals to power. A cousin of the Prince of Montenegro, one Bozo Petrovich, who had received a pension from the Servian Government, was conducted across the frontier. Gen. Sava Gruich, Servian minister at St. Petersburg, was relieved of his functions because he had censured the Government in a private letter. He was once the head of a Radical Cabinet, but had since taken no part in domestic politics. The Czar conferred a decoration upon him in response to the message discharging him from his post, dismissing him from the army, and summoning him home to stand trial for complicity in a treasonable conspiracy. When Pasich, the leader of the Radical party, was arrested the police found notes of a committee meeting at which the heads of the party discussed the plan of counseling the peasantry to withhold their taxes until the collectors called upon them to pay, as they expected in the meantime to get control of the offices. Pasich, Taushanovich, Listich, Protich, and other prominent Radicals were arrested, including the Pope Jurich, a renowned political orator, also Prof. Milenko Vesnich, of the Belgrade University. Russia and Austria-Hungary refrained from diplomatic interference, as they were bound by a secret mutual understanding not to intervene directly in the affairs of the Balkan states. Both, however, gave unmistakable unofficial warnings against the attempt of ex-King Milan to seize this opportunity to get rid of all his political opponents. Of 56 persons arrested, 16 were set at liberty after the preliminary examination. The trial, which was held at Nish, began, after several postponements, early in September, and lasted three weeks.

Meanwhile the Skupshtina was summoned to meet in extraordinary session, principally for the purpose of granting a bill of indemnity for the proclamation of a state of siege. Before it met the Minister of the Interior, M. Andonovich, and the Minister of Commerce, M. Lozanich, handed in their resignations, which were accepted. M. Petrovich, the Minister of Finance, was appointed on Aug. 11 to be Minister of Commerce *ad interim* and M. Genshich to be Minister of the Interior. On the eve of the state trial one of the prisoners, the Prefect Angjelich, believing that the Government had deserted him, and being anxious to secure for his widow her pension, found means to hang himself in his cell. As the trial was conducted under the law of the minor state of siege, the prisoners were not allowed to confer with their counsel, nor were the counsel informed of the specific charges and proofs brought out against their clients in the preliminary investigation; neither were they permitted to cross-examine witnesses during the trial. When the prisoner Knezevich was interrogated he retracted his former confession, and said that he alone had planned the crime, because an acquaintance had told him that ex-King Milan, to whom he

intended to apply for employment in the army, would be likely to send him to prison and have him tortured, as he hated Bosnians. The proofs that the prosecution relied upon to connect ex-Col. Nicolich and other persons with Knezevich or to trace the latter's journey to Roumania broke down. Knezevich repeated his accusations against the others, and before the end of the trial recanted them again, saying that he wanted to pay off grudges against those persons and to save his own skin. The wholesale denunciations of Krezich or Krezovich, whose real name was proved to be Payich, he having stolen the passport of one Dimitri Krezovich, were no better established. Ranko Tisich, once the aggressive Radical leader of the Servian peasantry, was included in the indictment, but he had been long a refugee, holding a post of honor in the Montenegrin Government. Several other accused peasants took flight before the arrests were made. Six of the prisoners, including Knezevich, were charged with being concerned in the plot to kill ex-King Milan, the other 23, on the information of Krezovich, with conspiring with members of the Karageorgevich family to overturn the Obrenovich dynasty. Ten more were placed on trial for the minor offense of *lèse-majesté* or for infractions of the press law. The *lèse-majesté* consisted in uttering insults against ex-King Milan, who was heir to the throne. This offense was proved by the evidence to have been committed by Taushanovich and others of the Radicals; but the antidynastic plot was not shown, nor were any relations with the pretenders, except on the part of the priest Jurich. The court ruled that offenses against ex-King Milan were offenses against the dynasty. To the surprise of many people who had followed the proceedings, the judges, on Sept. 25, found most of the prisoners guilty. Knezevich was sentenced to death, and was immediately shot, protesting once more before his execution that he had no accomplices. Three of those whom he had accused and exculpated by turns were sentenced to twenty years' hard labor, as were Jurich, Protich, Pavichevich, and even Milinkovich, who claimed to be a Government spy in the employ of the prefect that had killed himself after protesting that he had acted under instructions from ex-King Milan. Pasich, with seven others, was sentenced to five years' imprisonment; Taushanovich to nine years' imprisonment. Tisich and Uroshevich, a fugitive in Roumania, were sentenced *in contumaciam* to twenty years' penal servitude. Six peasants who had spoken of an impending change of administration were condemned to prison for five years, because, though not actually conspiring, they had omitted to inform the Government. M. Vesnich, Professor of International Law, was sentenced to two years' penal servitude, and M. Pavolovich, who had been previously deprived of a professorship for writing against ex-King Milan, received a three years' sentence, two others sentences of six and eight years, and six more various terms on the charge of *lèse-majesté*. Pasich was pardoned within an hour, and in thanking the King for his clemency he promised him his support. Plots against the Obrenovich dynasty were known to exist, although no direct connection of any of the prisoners with such a plot was legally proved at the trial, and in the course of his deposition Pasich had blamed himself for not having rid the Radical party of the antidynastic elements. His letter to the King was tantamount to a recantation of his Radical principles and a condonation of the constitutional changes which destroyed the Constitution of 1888.

After the court had rendered its unexpectedly severe verdict the Russian *chargé d'affaires* left Belgrade, intrusting to the second secretary the conduct of the business of the legation, after first calling the attention of the Servian Government to the painful impression produced abroad by the severity of the sentences. The representatives of France and Italy made similar representations.

The Skupshtina was convoked at Nish on Oct. 2. Stricter laws against sedition were submitted. A commercial convention with Turkey was approved. The revenue was increasing, and arrangements were made for the extension of railroad communications, especially a contract with an English firm for a railroad through western Servia. The development of the army, the raising of the material condition of the people, and the return of the people from political agitation to productive work were the avowed objects of the Government programme. The loyalty of the people not being agreeable to the subversive elements, these were represented in the royal speech as having hired a venal individual to strike at the life of King Milan with a view to the destruction of legal order. The state of siege was raised just previous to the convening of the Chamber. The Government, which has often before broken its pledges to its creditors and concessionaires, attempted to confiscate the railroad surplus that had been mortgaged to bondholders, offering to substitute for this security the profits of the match and cigarette-paper monopolies. The foreign creditors, who are mostly Germans, refused to accede to the change. The fruit harvest was so abundant in 1899 that only a part was marketed. The Government has offered inducements to English capitalists to improve the means of communication and open up the mines of the country.

SIAM, an absolute monarchy in southeastern Asia. The reigning King is Chulalongkorn, born Sept. 21, 1853, who succeeded his father Mongkut on Oct. 1, 1868. The King, who has power to name his successor from among the princes of the royal family, on Jan. 17, 1895, nominated as Crown Prince his eldest son, Maha Vajiravudh. By the royal decree of Jan. 10, 1895, a Legislative Council was created, consisting in 1899 of 43 members, including the Ministers of State.

Area and Population.—The territory east of the Mekong river as far as the mountain range of Annam, formerly claimed by Siam, was conceded to be French in the treaty of September, 1893. The present area of the kingdom is about 244,000 square miles, including 60,000 square miles in the Malay Peninsula. The population, estimated at 10,000,000, comprises about 2,500,000 Siamese, 3,000,000 Chinese, 2,000,000 Laotians, 1,000,000 Malays, and 1,500,000 Cambodians, Burmese, Indians, and others. Bangkok, the capital, has over 400,000 inhabitants. The labor of the country is mostly done by immigrants—Karens and Burmese in the teak forests of the north and Chinese coolies in the mines and factories of the south. The natives are liable to forced labor, and compelled to work for the local governors at certain periods of the year. Slavery for debt is legal, though by an edict of the present King no person born since his accession can be held in slavery after reaching the age of twenty-one.

The standing army numbers about 12,000 men, but not more than 5,000 are kept under arms. The principal vessel of the navy is the cruiser Maha Chakrkrri, of 3,000 tons, armed with 4 4.7-inch and 8 6-pounder quick firers.

Commerce and Production.—Rice is the chief agricultural product, being the common food of

the people and an important article of export. The cultivation has been extended by the cutting of irrigation canals through the upper part of the Menam delta. Pepper and sesame are also grown for export, and tobacco, coffee, hemp, and cotton for domestic consumption. Salt and dried fish are exported in considerable quantities. The forestry products are important. Most of the teak forests have been leased to Englishmen. The ruby and sapphire mines in Chantabun are worked by an English company. Concessions have been granted for gold mining. Coal, iron, copper, manganese, zinc, and antimony exist, but are not regularly mined. The trade of the country is carried on by Europeans, Chinese, and other foreigners. The total value of imports in 1897 was £2,484,807, and of exports £3,203,218. Included in the imports are £874,376 of treasure, and in the exports £116,520. The importation of cotton goods was £237,208; of silks, £91,519; of gunny bags, £75,692; of kerosene, £75,437; of piece goods, £68,863; of sugar, £82,316; of opium, £55,055; of cotton yarn, £46,016; of hardware and cutlery, £39,933; of iron and steel goods and machinery, £29,974; of other merchandise, £829,418. The exportation of rice was £2,342,619; of teak, £284,012; of fishery products, £84,888; of various woods, £39,173; of pepper, £22,693; of other articles, £313,313. During 1897 there were 533 vessels, of 431,611 tons, entered and 521, of 463,244 tons, cleared at the port of Bangkok. Over 73 per cent. of the vessels entered and 77 per cent. of the vessels cleared was British.

Railroads, Posts, and Telegraphs.—There is a railroad between Bangkok and Paknam, 14 miles, and of the railroad from Bangkok to Korat 98 miles have been completed. Another railroad has been sanctioned leading from the capital to Ban Mai, on the Patiew river, and a line running from Bangkok to the northeastern extremity of the country has been surveyed. An American company has constructed trolley roads and an electric-lighting plant in Bangkok.

The telegraph lines have a total length of 1,820 miles. The post office in 1896 forwarded 471,295 internal and 373,704 foreign letters, etc.

Political Affairs.—The reorganization of the Government and nation on European models with the help of foreign experts was the policy adopted by King Chulalongkorn when the encroachments of the British from Burmah and of the French from Annam threatened his kingdom with extinction. To prevent the undue growth of foreign political influence he has placed different departments of administration under the control of Europeans of different nationalities, preferably from the small and neutral countries that have no great interests or ambitions in the East. After the annexation of the five border Shan States to Burmah in 1884 he was for some time distrustful of Great Britain. The endless disputes with France since the rectification of the frontier of Annam and Tonquin in 1893 turned his animosity toward that power, and, as Great Britain supported him in his territorial claims against French pretensions, he has favored British commerce in Siam and employed British officials, and toward the French he has shown constant hostility. The assumption by France of protection over the descendants of Annamite and Laotian prisoners of war, colonies of whom are scattered over the Menam valley, has been a constant source of irritation. Although this class of people was recognized as entitled to French registration by the treaty of 1893, the Siamese authorities have raised every possible difficulty to

their claim, and have continued to subject them to taxation and forced labor. By the Anglo-French convention of 1896 the integrity of the Menam valley was secured by mutual pledges on the part of Siam's powerful neighbors. By her diplomatic support in securing the evacuation of Siamese territory when French troops occupied the capital in 1893 England obtained for herself the reversionary right to the Siamese Malay states, while France was restricted to the old frontier of Annam.

The Siamese Government is indebted to a distinguished Belgian jurist, Rolin Jacquemyns, its chief European adviser, for the reform of its laws and law courts and the general reorganization of the administration. The chief branches of the administration are in the hands of princes of the royal house. The Minister of Finance is a brother of the King, Prince Mahitson. The Minister of the Interior is Prince Damrong. The Minister of Justice, Prince Rabi, a son of the King, was educated in Oxford University and called to the bar in London. A college has been founded with an Englishman at its head for the education of the sons of the nobility, so that they can carry on the work of the administrative departments now intrusted to foreigners. The chief criminal judge is a Siamese who read law in England, and the attorney-general an advocate from Ceylon. Many of the smaller courts have Belgian advisers attached to them. A Dane has reorganized the rural police, with countrymen of his own for subordinates. The inspector of the police in Bangkok and on the river and railroad is an English official from Burmah, who has other Englishmen under him, and has introduced Pathans and Sikhs into the police force of 2,515 men. The foreign naval officers are all Danes. Belgians are employed in many of the departments, but since 1896 the leading part in the reform of the public services has been confided to English officials lent by the authorities of Burmah. An English surveyor general with ten English assistants has undertaken a cadastral survey of the country. The English conservator of the forests has effected a thorough reform of the forestry department. Effective control has been instituted, and regulations similar to those which have conserved the teak forests of Burmah have been enforced, arresting the wholesale destruction that threatened the teak forests of upper Siam. Leases are given for six years, and only trees of a certain girth that have been girdled for two years are allowed to be felled. Under the new supervision the royalties collected have increased fourfold, and a permanent source of revenue has been restored to the Government.

The reform of the financial administration was undertaken in 1896 by Mitchell Innes, of the Burmese Government staff, who was succeeded early in 1899 by Rivett Carnac, also from Burmah. In the year preceding the appointment of a financial adviser, the year ending March 31, 1896, the revenue was £1,080,000, being £30,000 more than the average for the last two previous years. For the year ending March 31, 1898, this amount had risen to £1,488,000. During the same time expenditure increased from £762,000 in 1896 to £1,416,000 in 1898. For 1899 the revenue was estimated at £1,740,000 and expenditure at £1,560,000. The increase in revenue is attributed partly to the increased prosperity of the country and partly to more punctual and efficient collection, partly also to the introduction of an improved system of accounts and to improvement in the administration of justice. The revenue from the farming of gambling privileges increased

from £116,800 in 1896 to £253,800 in 1898, that yielded by the opium farm from £165,600 to £190,200, and that of the spirit farm from £165,600 to £187,800. Customs receipts increased from £128,400 to £159,000, and the *likin* revenue from £72,600 to £82,200, notwithstanding the abolition of a large majority of the inland transit duties. There was an increase in the land tax on paddy land from £56,760 to £88,560, and in the revenue from teak from £7,380 to £33,240. The poll tax collected in 1898 was £56,100, having increased more than threefold. Old debts collected in 1898 amounted to £41,000. Increased expenditure is due chiefly to the reforms in the police and the courts of law, the large increase of European staffs, the cost of the cadastral survey, and a general increase in salaries, especially of the higher officials. The King's civil list, which was formerly 15 per cent. of the gross revenue, has been fixed at £126,000. The Burmese village system has been introduced.

The Siamese Government with British support is seeking a revision of the commercial treaties that have been in operation for more than forty years. The treaties define 3 per cent. as the highest import duty to be levied on foreign goods, payment of which frees them from all other imposts of any kind. It is desired also to reconsider the immunity of taxation enjoyed by foreigners and the multitude of foreign *protégés*, none of whom can be subjected to any impost, besides the land tax and the import duties, without the consent of the foreign consul. The privileges of extraterritoriality are extended in Siam to an extraordinary number of persons.

The Government of Siam has always paid current expenses and the cost of whatever public works have been constructed till now out of each year's revenue. A foreign loan has been proposed by the present European advisers. The productivity of the country can be increased by means of railroads and irrigation works, especially rice production in the upper valley of the Menam. A system of irrigation canals has been decided upon, and Dutch engineers were sent for to take charge of the construction and management.

By the treaty of 1893 a zone of 25 kilometres on the right bank of the Mekong was declared neutral. The French have the right to establish stations there, but neither French nor Siamese armed troops are allowed to enter the strip. In the spring of 1899 M. Doumer, Governor of French Indo-China, went to Bangkok, and in a series of conferences with the King and his ministers brought about a better understanding than had existed for years. The King promised to employ a staff of French engineers in the Public Works Department, to attach French advisers to other departments, to have French professors appointed in the colleges, and to have the French language taught in the schools.

SOUTH AFRICAN REPUBLIC (formerly Transvaal Republic), an independent state in southern Africa, between the Vaal river on the south and the Limpopo on the north, bounded east by Portuguese possessions and west by Bechuanaland. Capital, Pretoria. The legislative powers are vested in the Volksraad, consisting of 2 chambers, each having 27 members elected in as many districts. The members of the First Chamber are elected by burghers of the first class—white male citizens who were resident in the Republic previous to 1876 or who served the Republic in the war of independence, the Malaboch war, the expedition to Swaziland, or other native wars, or the operations against the Jameson raiders. The sons of

all such citizens are also first-class burghers from the age of sixteen. The second class of burghers, who are permitted to cast votes for members of the Second Chamber only, consists of naturalized white citizens. An alien may become a naturalized citizen after two years of residence by inscribing his name on the books of the field cornet and paying a fee of £2. To become eligible to the Second Raad, an alien must have resided two more years in the country and must take the oath of allegiance. The sons of naturalized burghers must also be naturalized before they are entitled to vote. Naturalized burghers may become first-class burghers after being naturalized twelve years; but even then the application must be signed by two thirds of the burghers in the district and be approved by a special vote of the First Chamber. No bill passed by the Second Chamber becomes a law until it is approved by the First Chamber. The President and the Commandant General are elected by the votes of the first-class burghers only, and the members of the Executive Council by the First Chamber.

The President of the Republic is Stephanus Johannes Paulus Kruger, elected for his fourth term of five years in February, 1898 (see page 412 of this volume). The Vice-President and Commandant General was P. J. Joubert; State Secretary, F. W. Reitz; Superintendent of Natives, P. A. Cronje; Keeper of the Minutes, J. H. M. Kock; nonofficial members of the Executive Council, J. M. A. Wolmarans and S. W. Burger.

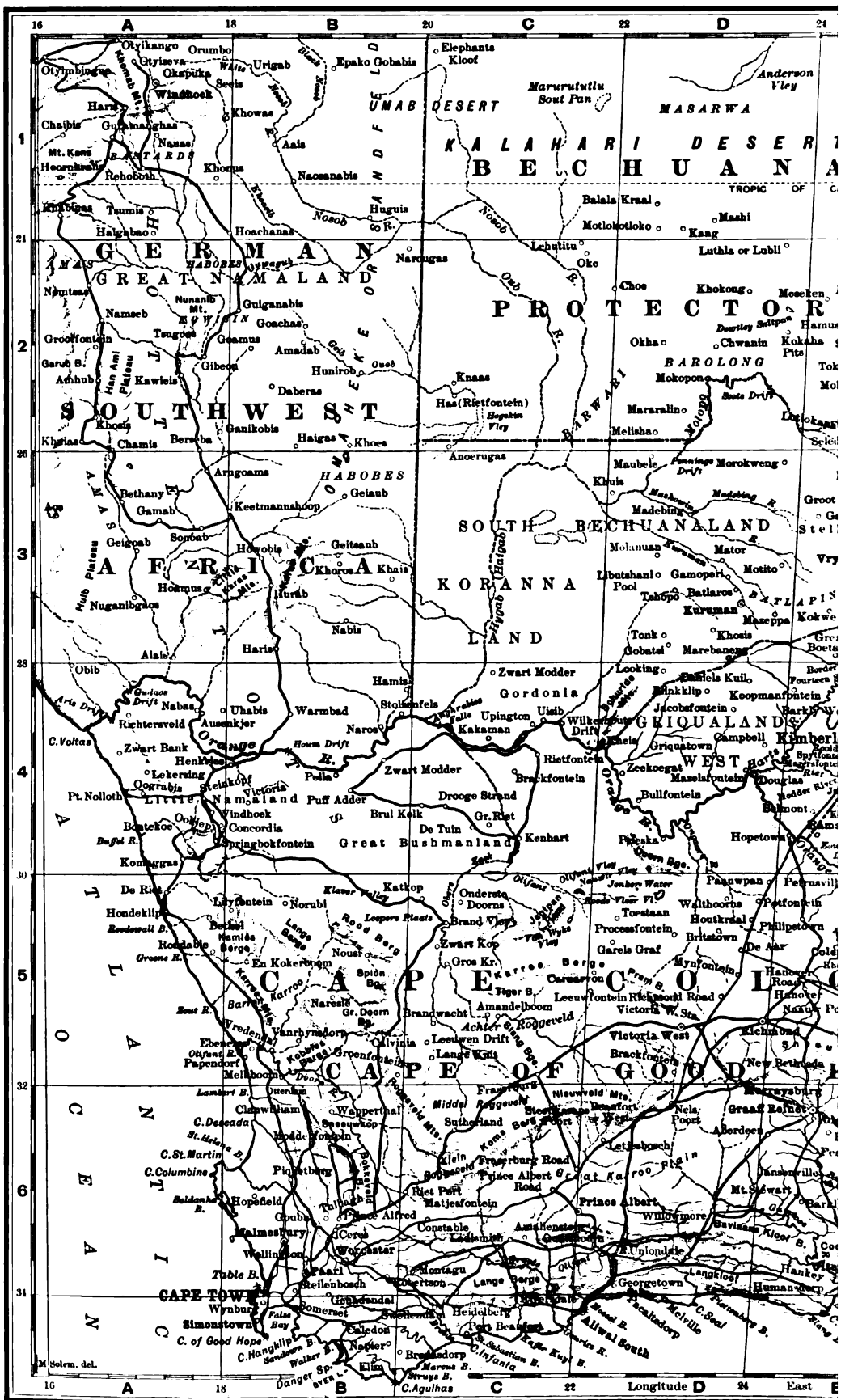
Area and Population.—The area of the South African Republic is 119,139 square miles. The population was estimated in 1898 at 1,094,156, of whom 345,397 were whites, comprising 137,947 males and 107,450 females, and 748,759 were colored, comprising 148,155 men, 183,280 women, and 417,324 children. Pretoria, the capital, has a population of about 10,000, counting whites only. Johannesburg, the chief town of the Witwatersrand, had a population in 1896 of 102,078, of whom 79,315 were males and 22,763 females, the total comprising 50,907 whites, 952 Malays, 4,807 Indian coolies and Chinese, 42,533 Kaffirs, and 2,879 of mixed race.

Defense.—All the burghers under the age of sixty are liable to be summoned into the field in case of war. The number inscribed on the rolls of the field cornets was 26,299 in 1894. Since the Jameson raid of 1896 3 bodies of volunteers have been organized, numbering 2,000 men, equipped by the Government. The artillery force numbers 32 officers, 79 noncommissioned officers, and 289 men.

Finances.—The revenue in 1897 amounted to £4,480,218, and the expenditure to £4,394,066. Of the revenue, £1,276,319 came from customs, £737,366 from the Netherlands Railroad Company, £427,230 from prospecting licenses, £300,000 from explosives, £258,396 from stamps, and £215,320 from posts and telegraphs. Of the expenditures, £1,012,866 were for public works, £996,960 for salaries, £396,384 for war, £271,435 for the purchase of explosives. The mining commission at Johannesburg received £896,044 and expended £101,369.

The public debt in September, 1897, amounted to £2,673,690, including a loan of £2,500,000 and £146,690 due to the British Government.

Commerce and Production.—The Boers devote themselves to raising live stock, but do not till more than 50,000 acres, and are obliged to import cereals. The number of farms is 12,245, of which 3,636 belong to the Government, 1,612 are the property of nonresidents, and 6,997 are owned by resident owners and companies. The gold-



mining industry of the Witwatersrand and Barberton districts has changed the economical, political, and social conditions of the country. The gold production, which was £6,010 in 1895, grew to £1,869,645 in 1896, £8,589,555 in 1897, and £11,476,260 in 1898, exceeding that of any other country. The quantity extracted in 1897 was 3,289,720 ounces, of which 3,034,678 ounces were from the Witwatersrand, 113,972 ounces from De Kaap, 84,781 ounces from Klerksdorp, 50,942 ounces from Lydenburg, 223 ounces from Zoutpansberg, and 5,120 ounces from Swaziland and other districts. The 72 principal companies in 1897 employed 8,060 whites, paying them £2,521,603 in wages. The number of natives employed in the mines was about 70,000. In 1898 the output of the Rand increased to £16,240,630 in value, with a prospect of its reaching £20,000,000 in 1899. Since the opening of the mines in 1884 the total production has been

£1,254,058 for clothing, £869,443 for railroad material, and £864,126 for iron goods.

Railroads and Telegraphs.—The railroads of the Republic have outlets at the Cape, Durban, and Delagoa Bay. There were 774 miles in operation on Sept. 1, 1897, and 270 miles were under construction and 252 miles projected.

The telegraphs erected within the boundaries of the Republic have a total length of about 2,000 miles, connecting the principal towns with the systems of Cape Colony, Natal, and the British South Africa Company's territory.

Swaziland.—The native territory of Swaziland passed under the administration of the South African Republic by a convention concluded with Great Britain in 1894; but it is not to be incorporated in the Republic, and the natives retain the right to govern themselves in accordance with their own laws so far as these are consistent with civilized customs, and must not be deprived of

PORT NATAL AND DURBAN.

£70,228,603. The investments in the mines are held not alone in Great Britain, but largely in France also, and to a considerable extent in Germany.

Coal is found within convenient distance of the Witwatersrand and other gold fields. The quantity raised in 1897 was 1,600,212 tons, valued at £612,668.

Besides gold, the principal exports are wool, cattle, hides, grain, ostrich feathers, ivory, and minerals. The dutiable imports in 1897 amounted to £13,563,827, paying £1,289,039 in duties. The total value of imports was estimated at £21,515,000, of which £17,012,000 came from Great Britain, £2,747,000 from the United States, £1,054,226 from Germany, and £701,774 from Holland, Belgium, and France. The values of the principal imports were £1,876,391 for machinery,

their lands and grazing grounds. The hut tax and other imposts have been collected since August, 1898. The territory has an area of about 8,500 square miles and a population of 40,000 to 60,000 natives and about 1,000 whites. The permanent chief, Ngwane, has an army of 18,000 men. Before the natives began to pay taxes the Government of the South African Republic had to provide about £48,000 a year for the expenses of the administration, which is in charge of a special commissioner, J. C. Krogh. Gold is mined to some extent, and recently coal mines have been opened. Tin was formerly obtained, but mining has been suspended.

The Boer Ultimatum.—After the failure of the Bloemfontein conference and the enactment by the Transvaal Volksraad of a seven years' qualification for the franchise, Mr. Chamberlain,

on July 27, proposed a joint commission of inquiry to examine the question whether it would give such substantial and immediate representation as would serve for a satisfactory basis of settlement (see CAPE COLONY). The Government of the South African Republic objected to a joint inquiry as prejudicial to the independence of the Transvaal in internal affairs. Accordingly, negotiations were opened between Dr. Smuts, the State attorney, and Conyngham Greene, the British agent, with a view of ascertaining what proposals would be acceptable to the British Government. If it would end the tension, the Transvaal Government was willing to give to the Uitlanders a five years' retrospective franchise, such as Sir Alfred Milner had demanded at Bloemfontein, and to increase the representation of the Rand from 2 to 10 seats in a Volksraad of 36 members, which was more liberal than the proposal of the High Commissioner; to grant also a like increase in the representation of the mining community in the Second Volksraad, if desired, and to guarantee that its proportional representation should in the future never be diminished. These offers would be made only on the assumption that the British Government would agree that a precedent should not be formed by their present intervention for similar action in future, and that no future interference in the internal affairs of the Republic would take place contrary to the terms of the London convention; and also that the British Government would not insist further upon the assertion of suzerainty, the controversy on this subject being tacitly allowed to drop. In regard to arbitration, it was assumed that it would be conceded, the foreign element being excluded and only British or South African jurists being admissible as arbitrators. Mr. Greene's notes mention the right of the new burghers to vote for President and Commandant General, and of the new members of the Volksraad to use their own language. Dr. Smuts denied that he had made such offers. Mr. Greene found the proposals such as he could recommend for the acceptance of his Government. As regards suzerainty, he felt sure that the British Government could not and would not abandon the right which the preamble of the convention of 1881 gave, but would have no desire to hurt Boer susceptibilities by publicly asserting it so long as no reason to do so were given by the Government of the South African Republic. Sir Alfred Milner having telegraphed that the proposals would be considered on their merits, they were drafted in a formal communication which was dispatched to London on Aug. 19. Mr. Chamberlain suggested that the additional concessions contained in Mr. Greene's minutes be added, but the Transvaal Government declined to make any alteration or amplification of the offered terms. On Aug. 28 Mr. Chamberlain sent a dispatch declining the conditions attached to the offer of a five years' franchise. The State Secretary, F. W. Reitz, in his reply on Sept. 2, intimated that his Government had been led to believe that the offer with the conditions attached thereto would be accepted. As the proposal had been rejected, the Transvaal Government considered that it had lapsed. If the British Government chose to make a unilateral inquiry into the working of the seven years' franchise, the Transvaal Government was ready to submit to the Volksraad any proposals that might be suggested which could make the franchise law clearer or more effective, though such inquiry appeared to it to be premature. In regard to a joint commission, assuming that it was not intended to interfere in the in-

ternal affairs of the Republic or to establish precedent, the Government of the South African Republic would be glad to learn from the British Government how it proposed that the commission should be constituted, and when and where it should meet. As to the suzerainty question, Mr. Reitz declared that his Government, though abiding by the views it had formerly expressed, had neither asked nor intended that the British Government should abandon any right that it really might have, on the ground either of the convention of 1884 or of international law, to intervene for the protection of British subjects in the Transvaal. In regard to arbitration, he desired to know what subjects the British Government was unwilling to submit to the court, since the assurance of a final settlement of all questions in dispute, or that might arise, might be frustrated by these limitations. On Sept. 8, after a Cabinet council had ominously been convened, Mr. Chamberlain replied that the British Government was not willing to drop the question of suzerainty, because the Government of the South African Republic had claimed the status of a sovereign international state. The British Government would not go back to the seven years' franchise, as the Transvaal Government had itself recognized that its previous offer might with advantage be enlarged. The latest offer would be acceptable, provided that the inquiry, whether joint or unilateral, showed that it was not incumbered by conditions that would nullify the intention to give substantial and immediate representation to the Uitlanders. It was assumed that they would be permitted to use their own language in the Volksraad. The acceptance of these conditions would remove the tension, and in all probability render unnecessary any further intervention on the part of the British Government to secure the redress of grievances which the Uitlanders themselves would be able to bring to the notice of the Executive and of the Raad. An immediate and definite reply was urged. If it were favorable, the details of arbitration could be arranged by a conference, Uitlander grievances and questions of interpretation being excluded from the consideration of the tribunal. If the reply were negative or inconclusive, the British Government reserved to itself the right to consider the situation *de novo*, and to formulate its own proposals for a final settlement.

On Sept. 16 a dispatch was sent by the Transvaal Government declaring that the proposal of Aug. 19 had been induced by suggestions given by the British agent, which had been accepted in good faith and on express request as equivalent to an assurance that they would be acceptable to the British Government. At the opening of the Orange Free State Volksraad President Steyn said that the Transvaal had been decoyed into making an offer which it otherwise would not have made. In its reply the Transvaal Government said that it was prepared to recommend the Volksraad and people to run the danger to the independence of the State involved in giving an immediate vote in the Legislature to a large number of inpouring Uitlanders, in order to avoid the greater danger to its independence of the continuous and threatening claim of suzerainty, the interference of the British Government in the internal affairs of the Republic, and the want of an automatically working manner of regulating differences between the two governments. Mr. Reitz could not understand why the British Government should refuse to agree to the joint inquiry into the existing franchise that it had proposed as soon as the Transvaal Government sig-

nified its acceptance of the invitation, nor why the Secretary of State for Colonies should expect the five years' franchise to be granted when the conditions attached to the offer were rejected, nor why he should now declare the seven years' franchise inadequate when he had proposed an inquiry to determine whether it gave substantial representation to Uitlanders. His Government was still willing to have a joint commission, and to consider amendments in the existing franchise law. That it had ever agreed to the use of the English language in the Volksraad he denied. The Government of the South African Republic was ready and willing to co-operate in the composition of a court of arbitration, having the firm intention of abiding by the convention of 1884, and desired to have it made clear what were the definite questions that would be discussed at the proposed conference and that could not be subjected to arbitration. If the British Government, abandoning the idea of making new proposals more difficult for the Transvaal and imposing new conditions, would abide by its own proposal of a joint commission, for which on its acceptance by the Transvaal Government it had substituted an entirely new proposal, it would put an end to the tension, race hatred would decrease and die out, and the prosperity of South Africa would be developed. On Sept. 22 Mr. Chamberlain telegraphed to Sir Alfred Milner, after another Cabinet council, that in view of the refusal of the South African Republic to entertain the offered settlement of the franchise difficulty, the British Government was compelled to consider the situation afresh, and to formulate its own proposals. It had no desire to interfere with the independence of the South African Republic provided the conditions on which it was granted were observed in letter and spirit, and was ready to guarantee that independence against attack by British or foreign foes, nor had it asserted any rights of interference in the internal affairs of the Republic other than those derived from the conventions or which belong to every neighboring government. On Sept. 26 Mr. Reitz sent a dispatch dealing with the petition of the Uitlanders to the Queen, which would have received attention had it been presented to the Transvaal Government, although the grievances are mostly chimerical. The petition emanated from British subjects who were unwilling to comply with the laws and institutions of the country under the convention, from the South African League which made a propaganda of race hatred, yet boasted of its influence over the policy of the Imperial Government and really supplied false allegations and exaggerated statements that received an official stamp by being printed in British blue books and repeated in the speeches of British ministers. As far as the Republic was concerned, the South African League was an organization having the object to create revolution and undermine its independence; and if the wrong impression that the policy of the League was approved by the Imperial Government were removed, then the tension would disappear, the Afrikaner people would fear no longer that the interests of the British Empire necessarily imply the destruction of the republics and the enslavement of the Afrikaner population, and both sections of the white race would return to the brotherly harmony that had set in before the treacherous compact of 1895 revived passions on both sides.

The fresh proposals of the British Government were not sent, but on Sept. 30 another Cabinet council was held, at which it was decided to call out the reserves. Troops were sent to South

Africa from England and from India, and the troops that had gradually been collected there were massed on the Natal border at Ladysmith and Glencoe. In answer to this movement, the Transvaal Government called out a part of the burgher militia and formed laagers near Laings Nek, at Zandspruit and Volksrust. Commandant Ben Viljoen assembled a force in the Orange Free State near Van Reenen's pass, Commandant Piet Cronje one on the Bechuanaland border, menacing Mafeking, and Kimberley was threatened by another commando. The British Government recalled Gen. Sir William Butler, who as acting High Commissioner had tried to settle the disputes with the Boers amicably, informing the Government in London that it would require two army corps to conquer the Transvaal. In his place Lieut.-Gen. Sir George S. White was appointed commander in chief of the forces, with headquarters at Ladysmith.

On Oct. 9 a note from the State Secretary was delivered to the British agent, in which it was set forth that, save in the article of the London convention guaranteeing the right to enter, travel, and reside in any part of the Republic without being subject to unequal taxation, the British Government has no rights with regard to the Uitlander population; and that only a violation of those rights would furnish grounds for diplomatic representations or intervention, while the regulation of all other questions affecting the Uitlander population were handed over to the Republican Government, among which are included those of the franchise and representation of the people; that, although the exclusive right of the Government of the Republic and the Volksraad to regulate the franchise is indisputable, the Government has found occasion to discuss the franchise with the British Government in a friendly fashion, but without recognizing any right thereto on the part of the British Government, and in framing the existing franchise law those friendly discussions were kept in view; that on the part of the British Government these friendly discussions had assumed a more and more threatening tone, creating tension in the minds of the people of the Republic and of all South Africa, and finally the British Government had broken off friendly correspondence on the subject and intimated that it must proceed to formulate its own proposals for a final settlement; that while friendly correspondence was still going on an increase of troops on a large scale was introduced and stationed on its borders which the Government of the Republic, having regard to occurrences in its past history, could only consider as a threat against its independence, and in answer to an inquiry the High Commissioner had made a mysterious reference to possibilities which strengthened the suspicion that the independence of the Republic was being threatened, the promised proposal for a final settlement meanwhile being withheld, although the promise was repeated. The unlawful intervention of the British Government in the internal affairs of the Republic in contravention of the convention of 1884 and the extraordinary strengthening of the troops in the neighborhood of the borders had caused an intolerable condition of things to arise, whereto the Government of the Republic felt itself obliged, in its own interest and that of all South Africa, to make an end as soon as possible and to press for its termination and request the assurance that all points of mutual difference should be regulated by friendly arbitration or whatever amicable way might be agreed upon; that the troops on the borders should be instantly

withdrawn; that all re-enforcements that had arrived since June 1 should be removed from South Africa on the agreement that no attack within a period of time to be agreed upon should be made by the Republic on British possessions during further negotiations, and that the armed burghers should be withdrawn from the borders; and that the British troops on the high seas should not be landed in South Africa. An affirmative answer was demanded within forty-eight hours; otherwise, the action of the British Government would be regarded as a formal declaration of war, and if any further movement of troops in the direction of the frontier took place in the interval that also would be regarded as a declaration of war. Mr. Chamberlain replied by telegraph on the night of Oct. 10 that the conditions demanded were such as the British Government deemed it impossible to discuss. In answer to inquiries made by Sir Alfred Milner, President Steyn formally stated that the Orange Free State would make common cause with the Transvaal.

An interchange of telegrams had taken place between Sir Alfred Milner and President Steyn, who suggested when the High Commissioner said that the Imperial Government desired to prevent action on the part of the Transvaal Government that would make a pacific solution impossible that the threatening movement of British troops should be stopped. He offered his services as mediator, expressing his conviction that two years' difference in the franchise could easily be bridged over if peace were desired, but that continued warlike movements could only result in war. Sir Alfred Milner resented any suggestion about the disposition of imperial troops, and retorted with a reference to the grave fact that both republics were placing their forces on a war footing. President Steyn replied that the Transvaal had armed because an alien and hostile population in its midst was stirring up hatred under the incitement of organizations that for political and financial reasons desired to undermine the independence of the state; the Free State, which had everything to lose and nothing to gain by a rupture, would only call out the burghers when convinced that the British troops menaced the independence of the Transvaal, which the Orange Free State was bound to assist.

On Oct. 1, and again on Oct. 5, when President Steyn asked what the fresh British proposals were, the Colonial Secretary replied that they were not ready. On Oct. 9 the mobilization of an army corps was ordered.

After the refusal of the British Government to comply with the Boer ultimatum, President Steyn issued a proclamation calling upon the burghers to rise against the oppressor and the violator of rights, charging the British Government with shameless breaking of treaties, violation of international justice, and transgression of laws on feigned pretexts; with having for years past placed troops on the frontiers of the sister republic to encourage revolutionary disturbance and compel the Republic by fear to accede to demands involving the loss of the independence of the country as a self-governing sovereign state. No gratitude had been shown for the magnanimity exhibited, at the request of the British Government, to British subjects who had forfeited their lives and property under the laws of the Republic, and no feeling of shame had prevented the British Government, after gold mines of immense value had been discovered, from making claims the consequence of which, if allowed, would be that those who, or whose forefathers, had saved the country from barbarism and won it for civilization would

lose that control over the interests of the country to which they were justly entitled according to divine and human laws. President Steyn denounced the unfounded claim of paramountcy over the whole of South Africa, affecting even the Orange Free State, and the policy of Great Britain which had denied to the South African Republic its original position in respect to foreign affairs. The conventions had been perverted from their original intentions and been used as a means for the practice of tyranny and of injustice and for the support of a revolutionary propaganda. The experience of the Orange Free State made it clear that the solemn promises and agreements of Great Britain could not be relied on, for when the burghers had overcome a barbarous black tribe on the eastern frontiers, the British Government had unjustly and unlawfully intervened; and when diamonds were discovered in a portion of the territory of the Free State the dominion over this district had been forcibly appropriated by Great Britain, contrary to existing treaties.

When the forty-eight hours of the ultimatum expired and military operations began the Cape Parliament closed its session, and Sir Alfred Milner issued a proclamation warning the Cape Colonists of the penalties of treason. This was countersigned by Premier Schreiner, who appealed to the members of Parliament to endeavor to save the colony from being involved in the vortex of war, and instructed the field cornets to try to calm the people. But many of the Cape farmers had already supplied themselves with rifles and ammunition.

The Investment of Ladysmith.—Two days before the dispatch of the Boer ultimatum the mobilization of a field force for service in South Africa was ordered by the commander in chief of the British army with the approval of the Secretary of State for War. The increase of the force in Natal by 10,000 men had been ordered nearly a month before, and Sir Redvers Buller was appointed to conduct the expected campaign. Troop ships began to leave in the middle of September, when Sir George White left with his staff to take command of the troops in Natal, which, with the re-enforcements from England, amounted to a division, consisting of 18,000 officers and men. In Cape Colony also the garrison had been gradually strengthened, especially with engineers, artillery, and railroad troops; and troops had been moved toward the frontier of the Orange Free State to protect the railroad and garrison Kimberley, where fortifications were being constructed. The defenders, consisting of a British battalion and volunteers, numbered 2,500 men. Cecil Rhodes went to the threatened diamond mines. The ramparts were mounted with Maxims and heavy guns, more of which were cast in the De Beers workshops. The railroad officials for a long period had been preparing for the emergency by eliminating Afrikaners from the service and employing loyal Englishmen, who thus had time to become thoroughly familiar with the tracks. Col. Robert Baden-Powell had been engaged in recruiting and training a force of about 1,000 Cape volunteers for the defense of Rhodesia and Bechuanaland, with which he went to Mafeking, the headquarters of the Bechuanaland border police. The Indian military authorities thought they could spare 12,000 men from the European army in India, but not more with safety, and of this contingent 5,800 embarked for South Africa on Sept. 18 and subsequent dates.

The mobilization of the Transvaal Boers was ordered on Sept. 25. The distribution of Mauser rifles and cartridges was completed in three days.

and the burghers were moved in detachments to the front. Under the law, every male old enough to carry arms was liable for service, and any article needed for warlike purposes could be commandeered or requisitioned. Horses were annexed from their stables or taken out from the shafts in the street. Stores containing provisions, saddlery, clothing, or other requirements for the army were stripped of their contents, a receipt being given to the owner. The forces were thus hastily equipped and sent to the front by rail. The Free State commandos were also ordered out to guard the passes of the Drakensberg. Gen. Jan Kock commanded the forces on the Natal border, Gen. Schalk Burger those on the eastern frontier of the Transvaal, and Gen. Cronje took charge of the western frontier. The State artillery, with many large Creusot and Krupp guns, left Pretoria for Zandspruit and Volksrust on Oct. 4. That was the chief point of concentration, and before the sending of the ultimatum 8,000 armed burghers were assembled there. The arrival of troops from India made the English feel secure in their fortified positions, but it was decided not to defend the small town of Newcastle. The Australian colonies and Canada offered to raise regiments for the British army. The war officials decided at first to accept only units of 125 men—two units from the larger and one unit from the smaller colonies. Of 25,000 reserves called out in the United Kingdom 84 per cent. responded. These are time-expired short-service men who have returned to civil occupations, but in consideration of part pay are bound to return to the colors when summoned for active service. The Imperial Light Horse was recruited in Natal, mainly from Johannesburg refugees. The Boers raised an Irish corps, which Major Blake commanded. One corps of German volunteers went into camp near the Natal border under the command of Col. Schiel, who was the chief artillery officer. The Free State commandos assembled on the border near Aliwal North to the number of 9,000 men. Another commando under Piet Cronje moved toward Kimberley, and one section took up a position on Modder river.

The first hostile act was the commandeering of a railroad train at Harrismith on Oct. 11, as soon as the term of the ultimatum expired. Martial law was proclaimed, and British subjects who had not obtained permits to remain were ordered to leave Transvaal territory within eight days. Although a proclamation was issued commanding foreigners to join the Boer army, as one of the articles of the Constitution requires, the law was not put in force, and none but volunteers were accepted. The mines on the Rand were commandeered, and many miners remained to work there for the Government. All available troops in Cape Colony were sent up to De Aar, the junction of the railroad from Port Elizabeth and the line to Kimberley and Rhodesia from Cape Town. Gen. Piet Joubert, commandant general of the Transvaal, directed the campaign in Natal. Gen. Prinsloo was elected commandant general of the Free State forces, but Commandant Cronje directed operations in the field in the west. When the British agent was recalled and war was certain, President Kruger sent a message to sympathizers in the United States, in which he said the republics were determined that if they must belong to England a price will have to be paid that will stagger humanity; but that they have faith that the sun of liberty will rise in South Africa as it rose in North America. On Oct. 12 the Free State forces encamped on the eastern frontier advanced into Natal by Olivier's Hoek, Tintwa and

Van Reenen's passes. At the same moment the Transvaal commandos entered the northern corner of the colony from Volksrust and Wakkerstroom and marched southward to the passes in the mountains near Glencoe and Dundee. The Rustenburg and Marico commandos concentrated on Mafeking. An armored train returning from Vryburg was wrecked and the soldiers and two guns were captured. Vryburg was taken afterward with the aid of resident Boers. Repeated attacks with artillery were made upon Mafeking. Commandant Cronje crossed into Bechuanaland and commanded the investing force.

The British forces in Natal were deployed along a strategical line of about 60 miles, extending from Estcourt to Dundee, so as to hold both ends of the Biggarsberg range and protect the railroad. When the Boers crossed the Drakensberg at Van Reenen an equal force was sent out of Ladysmith by Sir George White to give them battle and prevent their getting into the rear of Ladysmith to cut the railroad. Ben Viljoen, crossing at Botha's pass, occupied Newcastle, and Charlestown was seized by the main column under Piet Joubert, consisting of a mixed force of Transvaalers and Free Staters, with the Hollander volunteers and one of the German legions, which crossed at Laings Nek. As these troops advanced along the line of the railroad to Ingogo and Ingagane they were joined by the columns from Wakkerstroom and Utrecht, which crossed Buffalo river at Meyer's and De Jaager's drifts. Meanwhile, Ben Viljoen's column pushed on to Dannhauser, while the Free State columns on the other British flank occupied Acton Homes, from which there was an easy line of advance to Colenso, where the railroad crosses Tugela river, and those that crossed the Drakensberg by Van Reenen pass and Nelson's Kop went into laager near Bester's Station, whence they could strike the Glencoe Railroad line in the vicinity of Modder Spruit. Sir George White sent out a detachment to Acton Homes as well as to Besters, in the hope of engaging both columns, but both declined battle until the arrival of the columns from the north. The plan of the Boer leaders was to envelop the whole British position, cutting off railroad communications in the rear, and at the same time sever the troops guarding Dundee and Glencoe under Gen. Symons from the main body at Ladysmith and crush these before closing in on the latter camp, which was provisioned for four months. Gen. Joubert had planned to draw out and entrap the British by first engaging them with a column advancing from Ingagane to Hatting Spruit, on the main road from Dannhauser. When they were well engaged in repelling this frontal attack, Lucas Meyer, who had marched down from Vryheid, crossed Buffalo river at Landman's drift, and approached Dundee from the northeast, could assail them in the rear, and Ben Viljoen, advancing from Waschbank, could fall on their left flank, cutting off retreat by the railroad or the direct wagon road to Ladysmith.

The Boer columns, numbering 9,000 men to 4,000 under Sir William Penn Symons, could not keep up telegraphic communications, and consequently they arrived at different times. Gen. Symons first perceived the troops of Gen. Meyer, 3,000 strong, with six guns, deploying on Talana hill, commanding his camp, and he sent the greater part of his force to attack them, while the rest remained to watch the force that was advancing from the left. The battle was opened at dawn on Oct. 20 by the Boer guns, placed in the night on Talana ridge, 3 miles from the camp. The Boer shells were defective and did

not explode, though they were well aimed and all fell in the camp. It was easy, therefore, for the heavy artillery of the British to silence the Boer guns; but Boers moved over the hill toward the south with the evident intention of turning the British position. To check this movement, Gen. Symons ordered an advance of cavalry and infantry. The infantry pushed forward toward the hill in the face of a terrific rifle fire. Although they were protected by the guns, which poured shrapnel into the Boer position on the summit, they stopped and fell back in the hottest zone of fire, rallied and rushed ahead once more, were checked again on the hillside, reformed a second time under the personal lead of Gen. Symons, charged up the hill for the third time, and finally reached the top and drove the Boers back to the

necessary to oust them from their position among rocky hills in order to keep open the line of retreat for the forces at Dundee. During the previous day, while Gen. Symons was engaged with Lucas Meyer's commando, his forces were kept busy by demonstrations of the Boer commandos on the west, which feigned an advance in force upon Ladysmith in order to prevent re-enforcements from being sent to Glencoe. On Oct. 21 the Imperial Light Horse and an infantry regiment, making a wide circuit along the crest of the ridge, fell upon the right flank of the slender detached force at Elands-laagte, while another regiment of foot delivered a frontal attack, supported by three field batteries, and this was followed up by charges of lancers and dragoons. Night fell before the manœuvre was completed,

MALIKOE-MARICO FORD, IN THE SOUTH AFRICAN REPUBLIC.

east. Of 4,000 British troops engaged 214 were killed or wounded. The Boer column under Commandant Erasmus, which the British supposed to be the main body of the enemy, did not advance from Hatting Spruit, but halted as soon as it came in contact with the British cavalry screen. The British commander, supposing that the Boers had left Talana hill in disorderly flight, ordered a cavalry force with a Maxim to go around the hill to intercept them. This detachment was itself put to flight by a large Boer force, and one squadron of hussars was surrounded and captured. Besides prisoners the British lost 224 killed and wounded in the battle.

Jan Kock's Johannesburg commando, eluding the patrols from Glencoe, crossed the Biggarsberg, and established its camp, with artillery, on the hills commanding the railroad at Elands-laagte, within 16 miles of Ladysmith. After capturing a cattle train they cut the railroad there, and afterward it was more effectually cut by the destruction of the long bridge at Waschbank. Scouts from Ladysmith discovered the enemy at Elands-laagte, and Gen. White deemed it neces-

and this enabled the bulk of the Boers to get away. They defended their position with great tenacity, their gunners returning to their guns whenever the British cannonade ceased for a moment. Their shells were not defective, but they did no more damage to the British than those fired into Glencoe camp, although the pieces were skillfully and pluckily served by trained German and Hollander artillerymen, whose fire was not as accurate as that from Talana hill. The British cavalry, who charged through the Boers three times, were exasperated at being fired at from behind, and the lancers when they caught a company of Boers in a place from which they could not escape refused quarter and stabbed them all after they had grounded their arms. Gen. J. T. P. French directed the British attack, and Jan Kock, who was mortally wounded and captured, was the Boer general. Commandant Schiel, leader of the German corps, was also taken prisoner. The Boer position was naturally strong, but the British, outnumbering them three to one, surrounded them and broke them up with a destructive bombardment before attempting the assault.

They lost about 100 killed and 200 prisoners, including wounded, nearly a third of their entire force, while the British casualties were 253. The Transvaal commando expected to be re-enforced by the Free State troops north of Ladysmith, but these remained away.

Lucas Meyer with the Utrecht and Vryheid commandos, re-enforced by the column of Erasmus, closed in again on the British camp.

The converging movement on Dundee had failed for the moment because Commandant Erasmus did not arrive at the rendezvous. Nevertheless, a hasty retreat to Ladysmith was all that could save the force of Gen. Symons, now commanded by Gen. Yule. Gen. Symons, mortally hurt, and the other British wounded were left in the hands of the Boers in the town of Dundee, for the gallant charge of the British infantry had accomplished nothing. Piet Joubert was advancing with a powerful body by way of Hatting Spruit. Evacuating Dundee and abandoning the camp between Dundee and Glencoe and everything in it, Gen. Yule, when the Boers appeared in force on the northern road on Oct. 21 and began shelling the camp—ineffectually as before, for the shells did not burst—tried to retire by way of Glencoe. He intended to take up a defensive position there and hold the Boers in check for some time, thinking that the victory at Elandslaagte had restored railroad communications, and that his cavalry could intercept the defeated Boers when they attempted to recross Biggarsberg pass. Finding the Boers in possession of the Glencoe route, and the railroad bridge over the Waschbank destroyed, he took up a defensive position on a hill, which he evacuated in the night of Oct. 22, and by forced marches made his way to Ladysmith by the longer western road that passes through Beith, coming into touch with the garrison in the night of Oct. 25, Sir George White having averted an attack by the Boers at Beaters by moving out a force to meet Gen. Yule's troops, which held the Free Staters in check at Rietfontein, near Modder Spruit. The British, commanded by Gen. French, consisted of 4 cavalry and 4 infantry regiments and 3 batteries, and they lost 19 killed and 91 wounded, but did not succeed in driving out the Boers, whose artillery fire was remarkably good. The Boers not only failed to intercept the column, but their investment was not completed in time to stop considerable re-enforcements that came up by railroad, the most important being a naval detachment with ship's guns mounted on special carriages, without which the artillery in Ladysmith would have been outtraged by the heavy guns of the Boers.

The force concentrated at Ladysmith numbered more than 12,000, including 4 regular cavalry regiments and the colonial mounted troops, 6 field batteries, a mountain battery, and the naval battery. On Oct. 28, two days after Gen. Yule entered Ladysmith, the Boers began to close round the place and to plant position guns on the neighboring hills. Lucas Meyer's force, which had pursued Gen. Yule's retreating column, brought up several heavy guns and began to bombard the town at a distance of more than 6,000 yards. Gen. White, on Oct. 30, made a sortie with his whole garrison, moving out in 3 columns in the night, cavalry scouts having on the previous day ascertained the nature of one of the enemy's main positions and the number of his guns. A brigade under Col. Grimshaw, with 4 field batteries, was directed against the Boers' left; one under Col. Ian Hamilton, with 3 field batteries and a mountain battery, moved upon

their right; Col. Carleton, with 2 battalions and a mountain battery, was ordered to seize Nicholson's Nek in order to turn their right flank; while Gen. French, with the cavalry manœuvring on the same flank, attempted to draw them out from their position. The position previously observed, on which they had mounted guns, a hill 5 miles north of Ladysmith, was the vulnerable point toward which the evolution was directed, but when this was reached it had been evacuated. Instead of converging on the Boer position, one of the columns found itself a mark for the Boer artillery posted in a semicircle around it, and the others had to hurry to its aid. One of the British columns, however, that commanded by Col. Carleton, which advanced early to inclose the position where the enemy was supposed to be, became isolated, and was surrounded by a superior force after it had first been thrown into confusion by the stampede of the mules attached to the mountain battery. The result was, that the guns were lost and the Irish fusiliers and the Gloucester regiment had to surrender at Nicholson's Nek. The number captured was 843, while 52 were killed and 150 left wounded. A like fate would have overtaken Col. Grimshaw's brigade, which was attacked on both flanks by the enemy that was supposed to be in front, but the guns that had been shelling the empty hill quickly changed front and covered the retreat, facilitating also the recapture of 2 field pieces that had fallen into the enemy's hands. The battalions were ordered to retire because the Boers had made a feint on Ladysmith from the north, and were thrown into confusion when crossing an open space under fire. The quick-firing naval guns arriving at a critical moment silenced the Boer siege artillery and enabled the British to bring off their forces and silence the great Creusot siege gun that had dropped 13 shells into Ladysmith.

The result of Gen. White's unfortunate sortie, for which he held no one responsible but himself, was to reduce the garrison to fewer than 10,000 men. The Orange Free State Boers joined hands with Gen. Joubert, and before the end of October four commandos were laagered in a semicircle round the north side of the town at a distance of less than 10 miles. A few days later the town was beleaguered on all sides by a force estimated at 18,000. It was not a well-chosen position, because it was commanded at long range by hills, from which the Boers fired shells into the town daily, which caused few casualties, however, as the garrison soon constructed intrenchments and pits, which were strengthened day by day. Many of the women and children, the sick and wounded, and other inhabitants were permitted to leave the town by Gen. Joubert. The rest deserted their dwellings and lived in bomb-proof caves. Cavalry and light artillery sallied out several times, but accomplished nothing to recompense them for their losses. Armored trains went back and forth from Colenso until that place was occupied on Nov. 2, the garrison retiring to Estcourt, the day on which the bombardment of Ladysmith was begun in earnest. On Nov. 6 a cavalry action took place near Dewdrop, in which the British lost 28 men, including 2 officers, the object being to drive the Boers from their commanding position at Groblers Kloof and recover Colenso, which they had not yet occupied in force. A Boer commando marched through Zululand, raising the Transvaal flag. The northern part of Natal was declared to be annexed to the South African Republic by a proclamation from Pretoria. On Nov. 9 the Boers made a general attack on Ladysmith,

which was repelled by the British, who had planted guns on the nearer hills, the bombardment having been intermitted. An assault was attempted after it had been prepared by artillery fire, but British riflemen stole forward and fired volleys on the Boers at close range, occupying in one instance a trench that had just been dug by the Boers, who finally retreated from the ridge and kopjes they had occupied adjacent to the British position. They were demoralized by the lyddite shells, against which Gen. Joubert had protested as inhuman. More guns arrived later from the Transvaal, and when the line of investiture was complete Gen. Joubert detached several thousand men, who occupied Colenso, blew up the long lattice-girder railroad bridge across the Tugela, began to destroy the railroad south of that place, and in small parties raided the country as far as Weenen and the outskirts of Estcourt. The commando that advanced through Zululand traversed the eastern districts. The people of Pietermaritzburg were in a panic, and the English colonists in Natal joined the volunteers. The Dutch farmers of the colony enlisted under the Republican standard or aided the invaders in other ways. At Estcourt a force of about 2,000 British was concentrated under Gen. Wolfe Murray. After the arrival of troops from India there was no more fear that Pietermaritzburg or Durban would be captured by the Boers. Armored trains from Estcourt tried to protect the railroad to Colenso until a detachment of about 500 Boers appeared on Nov. 15 with artillery, entrapped a train by getting between it and Colenso and throwing it off the track, and brought their cannon to bear on the overturned trucks. The engine, which was behind, was brought away with 12 men, and others escaped on foot, but 132 were made prisoners. With the captured was the newspaper correspondent Winston Churchill, who was held a prisoner of war because he assisted the soldiers with a rifle, but was allowed to escape afterward from Pretoria.

For the first few days after the Boers closed in around Ladysmith the British dreaded an assault, and the naval gunners drew their fire while all other troops were at work building breastworks. These were so far complete at the end of a week that the besieged were confident of holding their own, which they did when a determined attack was made on the works on Nov. 9. After this failed the Boers gave up the effort to take the place by storm and relied on shell fire to compel a surrender. They mounted guns on all points of vantage within range. They had not completed their siege dispositions when Sir Francis Clery's relief force began to concentrate south of the Tugela. When they had six guns in position on Bulwana hill capable of dropping shells into the town, and emplacements also on Telegraph Kopje and the other hills, the garrison, cheered with the hope of relief, began to make sorties, and more than once surprised the tired Dutch gunners by night. Before the end of November the rigors of the siege were severely felt.

The Isolation of Kimberley.—Col. Kekewich, an engineer officer, was sent to Kimberley before the outbreak of hostilities, with a small detachment of regular troops, to put the town into a defensive condition. Cecil Rhodes arrived afterward. A force of irregular cavalry was recruited in Griqualand West, and a considerable body of volunteers was raised among the townsmen. A ring of fortifications was constructed that made the town practically impregnable to assault. Immediately after the expiration of the time allowed by the Boer ultimatum bodies of Free State and

Transvaal troops simultaneously crossed the western frontier at various points between Orange river and Mafeking. Except a small body of cavalry under Col. Gough at Hopetown and the garrisons of Kimberley and Mafeking, the British had no troops in this part of the colony. The Boers destroyed the railroad in numerous places, their plan being to isolate and then invest and capture the two fortified towns. They blew up the railroad bridge over the Modder river on Oct. 12, and a day later the force advancing on Mafeking cut off its communication with Rhodesia by destroying the Malopopo bridge. Botha's commando, advancing from Boshof, captured Border Station on Oct. 13. Two days afterward Taungs and Vryburg were occupied, half the inhabitants of the latter town welcoming the Boers. Riverton was next seized and destroyed, and Klipdam and Windsorton were occupied, and 14 streams also, which the British evacuated on Oct. 15, after which President Steyn proclaimed the annexation of Griqualand West to the Orange Free State. To this Sir Alfred Milner responded in a counter-proclamation. By Oct. 15 the investment of Kimberley as well as of Mafeking was complete. The artillery fire of the Boers, however, had little effect, and the defenders made some spirited sorties, inflicting losses on the Boers at Spytfontein on Oct. 16, and at Macfarlane's farm on Oct. 24. By Nov. 1 Gen. Cronje had concentrated his force on Kimberley, and a closer investment began. On Nov. 4 the Boers attacked the town vigorously, but were beaten off. The Boer commandant demanded the surrender of the town on pain of bombardment, and Col. Kekewich in reply invited him to effect its occupation as an operation of war. The bombardment of Kimberley had less effect than in the other beleaguered towns. On Nov. 7 and succeeding days the town was hotly bombarded. The Boers encircled the place with intrenchments, and when Lord Methuen's relief column appeared on Orange river Cronje drew off his troops, leaving only a containing force at Kimberley, and marched southward to contest the advance. The artillery force was equipped by Cecil Rhodes at the expense of the De Beers Company, and additional guns were made in the company's workshops. The water supply having been cut off, wells were sunk. Provisions had been stored up for a nine months' siege.

When the Boers hoisted the *riekleur* at Vryburg on Oct. 18 and proclaimed the annexation of Bechuanaland to the Transvaal, Col. Kekewich issued a proclamation warning all colonists that they would be dealt with as rebels and traitors if they joined the enemy's ranks. After the police had left the native town and mission station of Kuruman, a Boer force appeared and demanded its surrender. The missionary in charge, who had armed many natives and half-castes with rifles, defied the Boers, who, after laying siege to the town, withdrew.

The Siege of Mafeking.—Col. Robert Baden-Powell went out in the summer to take command of the Bechuanaland protectorate forces and defend the border in the event of war. He at once began to put Mafeking in a state of defense for the impending siege by surrounding the town with wire entanglements, constructing barricades, digging shelter trenches and bomb-proof pits, and mounting guns. He collected about 1,000 men and sent most of the women and children down to Kimberley as soon as a Boer commando on Oct. 6 lagged on the Transvaal border at Rooigrond. The burghers, commanded by Piet Cronje, advanced at once on Mafeking the day that hostilities were declared, hoping to reduce

it speedily and go back to their farms to harvest their crops. They found the place so strongly entrenched that they could only approach it by siege works. Some vigorous sallies of the garrison, supported by an armored train, made them the more cautious, though the losses of the British were severe, amounting to 18 in the first action fought on Oct. 14 by the mounted troops under Lieut. Fitz Clarence. An attempt to bring up two more guns for the defense on an armored train sent down to Kimberley under Lieut. Nesbitt ended in the capture of the guns and the force by the Boers, who threw the train off the track at Kratpan on Oct. 12. On Oct. 15 they made an attack on Mafeking, and were repelled. Commandant Cronje brought up a heavy gun from Pretoria after a futile bombardment and general attack on Oct. 23, and when he renewed the attack on Oct. 30, killing 2 officers and 4 men, he summoned the commander to surrender so as to avoid useless bloodshed. Col. Baden-Powell sent word that he would say when he had enough. Commandant Cronje retired later with the major part of his force in order to take charge of the siege of Kimberley, leaving his son Piet Cronje in command. The bombardment was kept up continuously sometimes for several days. The Boers occupied Lobatsi, and destroyed the railroad both north and south of the beleaguered place. During a bombardment all the people had to creep into their underground shelters. Col. Baden-Powell, however, kept them from losing heart, and baffled the besiegers by ingenious resources. He sent out a party to steal into the enemy's trenches and create a panic by a bayonet charge at night. In this action, which took place on Oct. 24, the British had 15 casualties. A car loaded with dynamite was pushed down the track, and when the Boers approached and fired at it some of them were killed. The natives, whose town was alongside of the European settlement, were not only employed on the earthworks, but according to Boer statements they were armed and took part in the military operations. The Dutch commander, Snyman, complained of this, and Col. Baden-Powell retorted that since the Boers had raided native kraals the natives had a right to defend themselves. Another controversy took place over the buildings protected by the Red Cross flag, which Baden-Powell charged the Boers with deliberately shelling; this they denied, but they wanted to know why the flag was flying from three of the largest buildings, and received the reply that these buildings harbored women and wounded persons, and that the Geneva treaty set no limit to the number of buildings that could fly the Red Cross flag.

Col. Plumer, who commanded the forces in Rhodesia, could not come to the relief of Mafeking, because he was confronted at Tuli by another Boer commando. On Oct. 31 the Boers made a determined assault on the works, in which their commander and many others were killed and on the British side 5 were killed and 5 disabled. The Boers gradually drew their trenches more closely round the town, so that their marksmen could pick off any soldier who showed his head over the parapet. The bombardment compelled all who were not necessary to man the trenches to remain most of the time underground. Sickness was caused by the unsanitary conditions long before the food supply grew short. The constant strain was relieved only on Sundays, when both sides rested by agreement. The Boers worked their trenches up to 500 yards, and the situation was so desperate that toward the end of December Col. Hore led out a force, covered

by the guns of the armored train, with the object of storming one of their works, which had been previously reconnoitered. The Boers, however, strengthened this weak place in time, and of 80 assailants 21 were killed and 33 wounded. The besiegers became more aggressive after administering this check, and the situation was so desperate that Col. Baden-Powell sent word secretly to the burghers that they would be well treated after the war if they would disband and return to their farms. This exasperated Commandant Snyman not less than the accusation that he had fired on the women's quarters. Relief was looked for from Col. Plumer, who pushed his way to Gaberones, 100 miles north, but was held in check at that point. The native chief Khama sent his regiments to the border, but the Boer commandant evaded a conflict. Col. Holdsworth approached within 120 miles of Mafeking, and was then compelled to retire. On Feb. 11 Col. Plumer attempted to surprise the opposing force at Crocodile Pools and capture a gun. The Boer position was well fortified, and Major Bird, who commanded the assailants, withdrew with a loss of 31 officers and men. On Feb. 17 and the day following the Boers made fierce assaults on the works at Mafeking. In March Col. Plumer's column advanced as far as Lobatsi, where it was opposed by the bulk of Commandant Snyman's force, only a small number of men being required to man the siege works at Mafeking.

Invasion of Cape Colony.—The Boers neglected the opportunity they had of overrunning Cape Colony at the beginning of hostilities when there were not 3,000 British troops to defend it. The burghers of the Free State were not as enterprising and bellicose as the Transvaalers, and those of both states were unwilling to serve at a distance from their homes. Natal was chosen for attack by the Transvaal because there was a large burgher population within short reach of that frontier, which had only to be supplemented by commandos assembled along the railroad line from Volksrust to Pretoria to make a formidable force. Another reason for making Natal the battle ground was that its rough and broken surface was favorable to Boer tactics. Yet another was that they hoped to regain this territory that once had belonged to them. The burghers of the eastern part of the Transvaal went to defend the Portuguese and Swazi border. Mafeking was besieged by a force gathered from the neighboring western districts. In the Free State the eastern commandos marched into Natal to co-operate with the Transvaalers, while the western ones went to attack Kimberley.

The burghers of the south were anxious about the attitude of the Basutos, and for some weeks a commando of about 3,000 men was kept on the border of Basutoland. Their suspicions were strengthened by the fact that the Basuto laborers who were accustomed to reap their crops and gather their fruit for them could not be induced to perform these services this year. This lack of labor, moreover, kept some of the Boers at home. They asked the British administrator of Basutoland, Sir Godfrey Lagden, to allow the Basutos to come and work for them as usual, but he refused unconditionally. The Basuto chiefs that were most loyal and obedient to their British rulers were desirous of fighting the Boers; others would have fought on the Boer side; but both the Boers and the British, although accusing each other of endeavoring to draw the Basutos into the war, firmly set their faces against arming these natives to take part in the white men's quarrel. In the north Col. Baden-Powell was re-

ported to have armed some of the Baralongs, and when one reverse after another had overtaken British arms and a commando went through Zululand hoisting the Transvaal *cierkleur* flag, Mr. Balfour announced in Parliament the intention of arming the Zulus so that they could defend their country. This policy was not carried out, however. Natives were employed freely on both sides in transport service and other labor which white men are not used to doing in Africa. The extensive fortifications of Kimberley supplementing the bulwark already existing that was formed by the mounds from the diamond mines were entirely the work of the 20,000 native miners.

Just before the meeting of the hostile forces at Dundee commandos began to gather at Donkerspoort, near the southern border of the Free State, and soon afterward to move down to Bethulie, Norval's Pont, and other points on Orange river. Sailors were sent from Simon's Bay to assist in the defense of Naauwpoort. Colesberg was evacuated by the British when a Boer commando appeared on the other side of Orange river with artillery. In the early days of November the burghers crossed into Cape Colony at Norval's Pont, another force at Bethulie, and not till the middle of the month a third commando at Aliwal North. They destroyed the bridge at Achterung on Nov. 6, and Colesberg bridge two days later. The Dutch joined the invaders in large numbers. In Barkly East the citizens seized the arsenal before the arrival of a Boer force. The British fell back from Aliwal North, Naauwpoort, and Stormberg, to the railroad junctions, concentrating at De Aar and Queenstown, which were put in a state of defense with feverish haste. Premier Schreiner issued a circular adjuring the colonists to remain loyal. Martial law was proclaimed by the Cape Government in the northern districts on Nov. 15, and the proclamation of the Free State annexing the districts occupied by the burgher forces was denounced as of no effect by the Governor. Although re-enforcements from England sufficient to defend the colony had not arrived, those that had arrived having been sent out to Natal, still the burghers were not aggressive, but seized only those places where they were welcomed by the colonists. They gave receipts for all supplies requisitioned by them. They were still nervous lest the British should allow the Basutos to ravage their own country, and their advance to Colesberg was delayed till Nov. 15. Van Hendric Olivier, chief commandant of the invading forces, ordered the burghers of the districts in which he had hoisted the Free State flag to take the field. Though only the young Dutch colonists who voluntarily joined his commandos were taken, the loyalists were ordered out of the occupied districts. On Nov. 18 Sir William Gatacre arrived at Queenstown with the advance guard of the force that was destined to defend the colony and repel the invaders. Gen. French, who had been recalled from Ladysmith before the siege was complete to take command of the cavalry division, advanced by the railroad from Port Elizabeth and reoccupied Naauwpoort in order to support Sir William Gatacre and protect the flank of Lord Methuen's Kimberley relief column. The arrival of re-enforcements at De Aar enabled Gen. French thus to assume the offensive soon after he took the command. On Nov. 23 a sharp skirmish ensued at Arundel when a British reconnoitering force appeared. On Nov. 6 the British advanced and occupied a strong position in the direction of Colesberg. The invaders who crossed at Bethulie, led by Swanepoel and Du-

ploy, deferred their advance to Burghersdorp until after the western force had occupied Colesberg. Steynsburg was occupied on Nov. 20, and Stormberg not till Nov. 28. From there they overran the whole country as far as Molteno. Gen. Gatacre soon got into touch with these advance parties. On Nov. 22, following a reconnaissance to Molteno, he advanced to Putter's Kraal, on Nov. 24 Sterkstroom was occupied, and on Nov. 27 an advanced position was occupied at Bushmanshoek, causing the Boers to fall back on Molteno. In the Barkly and Aliwal districts the Boers from Rouxville, who crossed at Aliwal North, found no British force to oppose them. They seized Aliwal North on Nov. 14, Ladygrey on Nov. 18, and Barkly East on Nov. 22. A detachment occupied Jamestown on Nov. 18, but evacuated it on Nov. 24.

The plan of operations that military men recommended for the British was to advance slowly and surely with overwhelming strength from Cape Colony to Bloemfontein and Pretoria, leaving Ladysmith and Kimberley to be reduced by the Boers or to be relieved automatically by the withdrawal of the besiegers for the defense of their own country. Political and sentimental considerations dictated the splitting up of the British army corps and the sending of one large division to Natal to raise the siege of Ladysmith and another to the west for the relief of Kimberley. The forces under Gen. French and Gen. Gatacre in the center were only large enough to stay the tide of invasion and preserve the Cape railroads from destruction, hardly large enough to restrain the growing rebellion among the colonial Dutch. Jamestown and Dordrecht were occupied by the Boers, and at Stormberg, their fortified camp, they were gaining accessions not only from the Free Staters, but from the colonists. Sir William Gatacre, when his force had grown to more than half a division, decided to begin aggressive operations with a night attack on Stormberg. Bringing up his troops from Putter's Kraal to Molteno by train, he set out with 2,500 men, and marched all night. Owing to the treachery or ignorance of the guides, he had not reached his objective when the morning light appeared on Dec. 10. The Boers were aware of his movement, and instead of surprising them he was surprised by volleys poured into the marching column from an unscalable ridge running alongside of the road. The British formed for action, and their guns played upon the enemy's position. The infantry ascended one of the hills in skirmishing order, only to find themselves exposed at the top to rifle fire from front, flank, and rear. They fell back and sought cover, while the two field batteries engaged in a duel with the Boer guns. A retreat was ordered, and in the beginning it was executed in good order. The Boers had guns and mitrailleuses, and when the British retreated they followed along the crest of the hills and did good execution with their artillery, which was well served and carried accurately 5,000 yards. The British threw down everything and made their way back over 9 miles of hills, pursued and shelled almost to Molteno, all except the wounded and 672 men who were cut off and forced to surrender. Two guns were abandoned. The British commander had intended to attack the southwest part of the Boer position, but the guides had led him around to the northwest end. The Boers had 6 laagers at Stormberg, commanded by Commandants Swanepoel and Olivier.

After his reverse Gen. Gatacre was obliged to remain inactive, and the spirit of rebellion spread among the population. On Dec. 18 he directed

that all the inhabitants within 12 miles of his camps should be removed from their houses and confined in laagers close to the military camps. The young loyalists of the northern districts joined Brabant's horse, a corps that performed valuable scouting services. When re-enforcements arrived Gen. Gatacre moved his camp to Sterkstroom, and on Dec. 25 occupied Dordrecht, which the enemy, mostly Cape Boers, made a vain attempt to recapture.

Gen. French's division was composed largely of mounted men, including the Australian and New Zealand volunteers. The district about Colesberg was suitable for cavalry operations, and with only a small force of active skirmishers he kept the opposing Boers employed. On Dec. 13, when 1,800 of them advanced toward Naauwpoort, Col. Porter, with dragoons, hussars, and horse artillery, occupied Vaal Kop and checked them. The division, after receiving accessions of infantry and cavalry, and by flanking movements, compelled the Boers to evacuate both Rensburg and Arundel. Threatened on both flanks, they retired still farther toward Orange river, until they were re-enforced by troops drawn from Modder river. On Dec. 30 the British occupied a position flanking the Boers at Colesberg, and on Jan. 4 a rash night attack was made upon a hill overlooking the town. The Boers shot down nearly all the officers, destroyed half of one company, gave the bugle signal for retreat to throw the others into confusion, and captured one of the companies, the total British loss amounting to 30 killed, 54 wounded, and 119 captured. When the force at the front was increased to 7,000 of all arms an enveloping movement was carried out, and after the British had occupied Slingsersfontein and other positions northwest of Colesberg in the middle of January, the Boers, seeing their line of retreat threatened, began to fall back to Norvals Pont. Re-enforcements arriving from Magersfontein, they pressed the British in turn, who evacuated all their positions and fell back on Rensburg. A 40-pounder on Bastard's Nek and some Vickers-Maxim and other guns gave the Boers a decided superiority. Later Gen. French and his cavalry were called away to take part in the strategic movement for the relief of Kimberley, and then the Boers, who had on their side all the inhabitants of the district, became aggressive once more and forced the British to retire to Rensburg. The British advance had, in fact, covered the withdrawal of the cavalry for operations against Cronje. The 5,000 troops that were ostensibly destined to re-enforce this division were also diverted to the west, and Gen. French soon followed. The retreat from Slingsersfontein on Feb. 12 was attended with considerable losses. The Boers under Commandant Petter surrounded two companies of the Wiltshire regiment and captured 142 men. Gen. Clements retired his whole force to Arundel, and was there invested by the Boers, who were held at bay by the skillful manoeuvring of the Australian mounted men.

Activity was shown at this time by Sir William Gatacre's command to divert the attention of the enemy from the real objective of Lord Roberts. The British advanced on Dordrecht, and attacked the Boers sharply, and on Feb. 16 Gen. Brabant occupied the town.

Kimberley Relief Force.—The column with which Lieut.-Gen. Lord Methuen intended to relieve Kimberley was a picked force, composed of the Highland brigade, the Royal Guards, a brigade of the line, a naval brigade, a good force of scouts and light cavalry under Col. Gough, and 3 field batteries. Col. Gough reconnoitred

on Nov. 10 and found the enemy in position near Belmont, about 700 strong, with 1 gun. In the skirmish he lost 4 officers and 2 privates. The relief column concentrated at Orange river on Nov. 10.

Methuen's division, consisting of 10,000 infantry and 1,000 cavalry, was not ready to move until Nov. 23, when it advanced on the Boer position. In this time the Boers had concentrated on Belmont in great force and had prepared the position there and others in the rear to fall back upon. The British with their guns broke the Boer center in the end. The guards made the march at night, attacked at dawn after a brief artillery duel, climbed the kopjes under a heavy fire, and cleared them with the bayonet only. Three ridges were thus taken in succession, the last attack having been prepared by shrapnel. The Boer force was about 2,000, with 5 guns. Kaffir's Kop, where they made the final stand, was defended with great pertinacity, and the British had to suffer from a cross fire delivered from behind bowlders. The cavalry pursued the Boers from both flanks, but they got away with their guns, transport, and stores, except a few that the British captured. In the assault the British lost 226 killed or wounded, and 83 captured. The Boer losses were much smaller, but 36 were made prisoners, and some of their horses were captured. Lord Methuen accused the enemy of using soft-pointed bullets, of flying white handkerchiefs to deceive his men, and of firing on his troops after being wounded. Such charges were made against the Boers several times later, and all acts in violation of the recognized laws of war were repudiated and denied by the Boer commanders. If such were committed, it was against orders. If dum-dum bullets were used, they must have been captured from the English, as the Boers had none of that kind, though a few of the farmers from remote districts may have brought their elephant rifles and used explosive bullets. The effects of Mauser bullets were found to be sometimes like those of explosive projectiles. They would go through muscle, occasionally even bone, injuring only the tissue in their path, but in striking sacs containing fluids would cause a destructive disturbance.

At Belmont, as in all the actions, the British officers suffered disproportionately, although care had been taken to remove all distinctive marks from their uniforms. This was owing to the custom in the English army for regimental officers to lead their men in every assault. The mounted infantry in this engagement, in an attempted flank movement, fell into an ambush and came off with difficulty. On the day of the battle the garrison at Kimberley, which was in heliographic communication with Lord Methuen, attempted a sortie, which failed. In trying to storm the Boer redoubts Major Scott-Turner, the commander, another officer, and 21 men were killed.

On Nov. 25 Lord Methuen advanced on a position occupied by a body of 2,500 Boers at Enslin, near Graspan. They had 6 guns and 2 machine guns. The position was strong, and was held with great stubbornness. After firing shrapnel the British infantry advanced to the attack, and after several hours of hard fighting the Boers gave way, and in retreating left many ammunition wagons behind. Early in the action a detachment of 500 was sent to attack the British rear guard, but it was repelled. The Boers were driven back at the point of the bayonet from one kopje to another, and their last position was stormed by the naval brigade, which lost heavily. They made good their retreat, and when the lancers

and the colonial scouts tried to intercept them these suffered severely from a withering rifle fire and were forced to retreat. The total British loss was 198 killed and wounded.

At Belmont the Boers had depended on the natural protection offered by the rocky kopjes. This was their reliance also at Enslin, or Graspan, except that they threw up on the first and strongest kopje a *schanse* or stone parapet that was a source of weakness rather than strength, because when the British infantry advanced to the assault the gunners burst shrapnel along the crest of the wall, preventing the Boers from rising to take aim at the storming party rushing up the slope. From this time they were under the command of Gen. Cronje, an expert in earthworks, who chose and elaborated his positions in accordance with modern theories of intrenchment and protected them with guns, few, but of the best kinds, skillfully placed and well served under the direction of Col. Albrecht.

On Nov. 28 Lord Methuen continued his advance and attacked the strongly intrenched position held by the Boer forces on Modder river. They were about 8,000 strong, and had 2 heavy guns, 2 Krupp field guns, and machine guns. The battle lasted all day. The guards brigade attacked on the right and the infantry of the line on the left, supported by the naval brigade from the railroad. The British had 24 guns. The Boers held a position extending 4 miles, and were intrenched on both sides of the river. Gen. Cronje, the Boer commander, restrained the fire of his guns and rifles until the British had deployed and advanced well within range. By a feint on the extreme left he drew off their artillery strength from his main position. The British general found at heavy cost the strength and disposition of the opposing forces and the location of their works. The steep river banks, covered by a belt of trees on both sides, afforded an excellent natural defensive position, which the Boers had strengthened by the construction of deep trenches and gun pits concealed by the brush growth. Rifle pits in front of the elevated position were not suspected by the British, who were told by spies that the Boer forces had retired to Spytfontein, leaving only a rear guard at this point. Concealed in low trenches, they fired with telling effect on the British as they advanced in widely extended formation. From their concealed trenches on the south side of the river and from the buildings they opened a murderous fire on the British infantry when it advanced unsuspectingly into range. The assault cost the British 474 killed or wounded. The river was in flood, and therefore the British could not execute any flanking operation. Lord Methuen described the battle as one of the hardest and most trying in the annals of the British army. The men were exposed to a burning sun, without food or water. In the end the Boers were forced by shell fire to withdraw from some of their positions, and Gen. Pole-Carew succeeded, with the aid of sappers, in getting a small party over the river. Gen. Cronje had brought up re-enforcements shortly before the battle. Troops had been drawn also from the besieging force before Kimberley, and the garrison took advantage of their absence to make another sortie in order to lighten the task before Lord Methuen's column by making a diversion or perhaps breaking through and joining hands with him. But the attempt was a failure. At nightfall the British were in possession of the ford at the extreme right of the Boer position on the Modder, and their artillery would be able to enfilade the whole position. Therefore the Boers

evacuated it, retiring to prepared positions that were much stronger at Magersfontein. The Free Staters on the right wing had become demoralized by the British gun fire, and their weakness caused Col. Albrecht, the German commander of the artillery, to fear for his guns, which were consequently removed under cover of the night.

In the 3 engagements the relieving force had lost more than 1,000 men. It was re-enforced after the last battle by horse artillery, Highlanders, the Canadian regiment, Australian contingents, and 3 British battalions. The railroad had been repaired up to Modder river, but the bridge would have to be reconstructed before trains could go farther. It was necessary, too, to accumulate stores and ammunition. When Lord Methuen was ready to move forward again he had 10,500 infantry, 2,000 cavalry, 3 field batteries, and a flying battery, with an equal force behind to guard communications. On Dec. 8 Commandant Prinsloo, with 1,000 men, stole behind the British position and began to tear up the railroad, but was driven off before much damage was done.

The new Boer position was only 6 miles back, and before the British again advanced they had time to render it almost unassailable by digging tiers of trenches with connecting galleries. Re-enforcements of Transvaal troops, which replaced the Free Staters, brought up the strength of the defending force to nearly 8,000, little more than half the British strength, with still greater inferiority in artillery, but these disadvantages were counterbalanced by their position of great natural strength skillfully fortified by Gen. Cronje. The position was too extended to permit of an enveloping movement, running in a semicircle from Magersfontein to Spytfontein. Gen. Methuen therefore decided on a frontal attack prepared more thoroughly by artillery fire, which had proved so effective in the last engagement. After half a day of shelling, which this time had small effect in the sheltered trenches, and did not even draw the fire of the Boer artillery, so that their gun positions could be located, the Highland brigade led the attack in the gray dawn of Dec. 11. There were concealed rifle pits in front of the hill, and before the Scots deployed they were struck down by a cross fire at short range. They sought cover, having lost 50 officers and 650 men killed or wounded. Other losses brought the total up to 963. The assault of the Highlanders, intended as a surprise, was undertaken against the advice of Gen. Wauchope, their commander, who was one of the first to fall. They ran into barbed wire, and the fire was opened from rifle pits dug in the open ground in front of the kopje. Supports coming up, they tried to storm these trenches, but failed. The cannonade that followed silenced the Boer artillery at times, but no further attacks or bombardments could dislodge the Boers, who made one attempt to get at the rear of the British over the open ground, but were driven back by the artillery. On Dec. 13 Lord Methuen retreated to his former position on Modder river. After this defeat at Magersfontein he made no further attempt to storm Gen. Cronje's works, which were daily strengthened and extended until they covered a front of 30 miles and reached the flanks of the British camp with the object of forcing a retirement to Orange river.

Operations on the Tugela.—The British field force began to arrive in the middle of November. Sir Redvers Buller, who landed at Capetown on Oct. 31, sent one division with a strong artillery and cavalry force to Natal to advance at once for the defense of Estcourt and the subsequent

relief of Ladysmith. The first of the transports conveying the army corps arrived at Cape Town on Nov. 9, and proceeded forthwith to Durban. Another division, under Lord Methuen, proceeded along the line of the Kimberley Railroad for the purpose of raising the siege of that town, and the third, under Sir William Gatacre, went to the northern part of the old colony to oppose the Free State commandos that had found a lodgment south of Orange river and were commanding Cape Colony Dutch. Sir Francis Clery commanded the forces in Natal except those locked up in Ladysmith until Gen. Buller assumed the command. Gen. Hildyard and Gen. Barton took their brigades to relieve Estcourt, and stopped the Boer raids south of the Tugela. The British under Gen. Barton encamped first on Mooi river, where they were attacked by a strong force of Boers, but held their position by artillery fire. The Boers, who were raiding Natal far and wide, were not alarmed when the first British troops arrived at Mooi river and Estcourt. They even attempted to confine these camps as well as Ladysmith, while threatening to attack Pietermaritzburg.

The British force in Natal, besides the Ladysmith garrison of 9,800 men, was 24,000 in the third week of November. After a fight at Willow Grange, in which Gen. Hildyard, with a loss of 15 killed and 72 wounded, drove the Boers from the high ground dominating the place, he was compelled to abandon it and retreat to Estcourt. Considerable bodies of Boers were still raiding the central districts of Natal. A strong division had entered Natal from the Utrecht district on the east and taken up a position at Highlands, while the Boers that crossed the Tugela and destroyed an armored train near Frere on Nov. 15 concentrated at Ennersdale. They began to pass northward as the newly landed troops concentrated at Estcourt and on the Mooi river. Even between these two camps communication could not be established without a struggle. The Boers held the ridges between them and shelled both camps. Gen. Hildyard made a second attack on the Boers who besieged Estcourt and gained a position on the high ground. Afterward the Boers retired to Tugela river, and the British columns united at Frere.

Sir Redvers Buller landed in Durban on Nov. 25, and at once began to press re-enforcements to the front.

The situation in Ladysmith was becoming graver. Rations were reduced, and enteric and typhoid fevers were prevalent. The Boers had placed two more heavy guns in position, and were firing at a range of 5,000 yards, instead of 8,000 yards as before. Johannesburg miners built, under the banks of the river a subterranean town with chambers and connecting galleries, and into these the people hurried whenever a shell entered the town. After the besiegers began to bombard at irregular intervals by night as well as by day the citizens remained most of the time in these unwholesome shelters. On Dec. 8 Major-Gen. Sir A. Hunter led a force of 600 Natal volunteers against Lombard's Kop, surprised the Boers, and destroyed two of their guns. Another sortie, made by Col. Metcalfe with 500 men, had for its result the destruction of another gun, but was attended with the loss of 12 killed, 43 wounded, and 6 prisoners.

On Dec. 15 Gen. Buller advanced with all his force (20,000 strong) from his camp at Chieveley for a general attack on the Boer position on the Tugela at Colenso, with the intention of forcing a passage by one of the two fords. All the time

that the English were waiting for the forces, stores, and transport to be brought up the Boers toiled incessantly to convert the naturally strong position on the Tugela into a fortress. They had trenches on both sides of the river, protecting each other, and all protected by cannon on the elevations back of them. Barbed-wire entanglements were stretched in front of the intrenchments and even in the bed of the river, which had been cunningly dammed in such a way as to form a deep current where the fords had been. Buller's plan was for one brigade to advance upon one of the fords, one upon the other, and a stronger one to attack in the center and support either of the others. Gen. Hart's brigade on the left, attacking valiantly and suffering great losses, was compelled to retire. Gen. Hildyard's brigade went forward to cover its retreat and seized the railroad station and other buildings. The Irish soldiers in the leading battalion, in attempting to ford the river, found themselves in deep water, and a few swam across. The artillery of the Boers was believed to outclass the British field pieces, but the gunnery of the Boers was supposed to be bad. Col. Long, the officer who commanded the artillery, advanced close to the river, as the range was too far for his guns from the place where they stood. The guns in the forts did not disclose their positions when the naval 12-pounders began shelling with lyddite, and the Boer infantry in Colenso village held their fire till the British battalions and field batteries got into close range. Sharpshooters in unseen trenches 700 yards away then killed the horses, so that only 2 of the guns could be brought off. Twelve guns were captured by the Boers after Lieut. Roberts and other officers had been shot in attempting to rescue them. The attack of Gen. Barton's brigade on the right, supported by Lord Dundonald's cavalry, was met by a flank attack of the Boers from Hlangwane hill. The cavalry and mounted infantry had been ordered to occupy this hill, which was unexpectedly found to be a strong Boer fort. It had not been discovered previous to the battle that the Boers had guns mounted on Hlangwane or any trenches south of the Tugela. After Gen. Buller had lost all his artillery he could do nothing but order a retreat. His losses in killed, wounded, and captured were 1,114. The Boer losses in killed and wounded were reported to be only 30. The Boers held back their fire until the British were within close range, although they themselves were all the time under shell fire. Their position was well planned, and both their intrenchments and their gun emplacements were completely hidden. As in all their attacks, the British were in front of an invisible enemy whose position could not even be fixed by the smoke of the rifles. The shell fire of the Boers was accurate and the projectiles exploded, yet they did little damage. The naval battery was unable to silence any of the Boer guns, as the gunners had made bomb-proof shelters for themselves. It was the rifle fire that caused nearly all the casualties. The magazine rifles with smokeless powder, when properly handled, render a direct assault on an intrenched position an almost impossible manœuvre. It is necessary to rush through a series of zones of fire about 20 yards broad, beginning more than 2 miles from the position, when advancing over open ground. The British commanders who attempted to carry these intrenched positions by storm exaggerated in every instance the number of the enemy, because not only could the Boers stop a charge of ten times their number, but by their sheltered galleries leading to the trenches

they could move men and guns to the point at which the attack was directed, which was indicated to them in time by their pickets on the heights. Their intrenchments they constantly extended, until on the Tugela they covered a line of 20 miles. A trench could be dug under cover of night to a depth sufficient to hide the men, who completed the excavation by day. The Boers were much more skillful with their rifles in volley firing, as well as in marksmanship, than the English, among whom only the officers carried glasses, while of the Boers every fourth man had a binocular. The ranges for their cannon were also measured and marked in front of their position on the Tugela.

On Jan. 6 the Boers made an attack in force on the redoubts south of Ladysmith at Cæsar's camp and Wagon hill. The intrenchments on Wagon hill were three times captured and retaken, and Besters hill was held by the Boers till evening, when they were driven out at the point of the bayonet. Their losses were heavier than the British losses, and the failure of the assault discouraged them from another attempt. The attack on the main objective was prepared by diversions at two other points, and when it was renewed in the afternoon it was supported by troops drawn from the intrenched position on the Tugela. Gen. White signaled that he was very hard pressed, and Gen. Buller made a demonstration against the Colenso trenches, but he found them manned in sufficient numbers to oppose his advance. The British loss in repelling the attack on Ladysmith was 417.

Gen. Buller's force was increased until it amounted to 24,000 infantry, 5,000 cavalry, and 2,000 artillery, with 70 guns, including 20 naval and siege guns. Gen. Joubert's was estimated at 18,600 mounted infantry and 1,500 artillery, with 60 guns, on the Tugela and before Ladysmith. The British, while shelling the Boer works daily, carried out cavalry reconnaissances east and west from Chieveley. On Jan. 11 Gen. Buller began a flanking operation west of Colenso. He occupied the bank of the river at Potgeiter's drift, 4½ miles south of an intrenched position of the Boers. If he could force back their left wing and reach Acton Homes, he would find a level road to Ladysmith. On Jan. 10, the Boers having retired from the south side of the Tugela on account of the flood in the river, Lord Dundonald seized Zwart Kop, an eminence commanding Potgeiter's drift, enabling the infantry to follow on the next morning. On Jan. 16 Gen. Lyttleton's brigade crossed to the north bank by the ferry, and the next day howitzers bombarded the Boer position. The naval guns were mounted on Mount Alice at the northern end of Zwart Kop. The Boers, who had offered no opposition to the crossing, added constantly to their defenses. They intrenched Spion Kop and the kopjes opposite Potgeiter's drift. At Trichard's drift, 5 miles farther west and 20 miles from Colenso, Sir Charles Warren with another column effected a passage by means of a pontoon bridge. While these movements were carried out a demonstration in force was made by Sir Francis Clery against Colenso and another position to the east of it. While Sir Charles Warren's advance was directed against the northern side of Spion Kop, Lord Dundonald's cavalry passed round to the west of Acton Homes, and in a skirmish at Dewdrop took 23 prisoners. The main force was that under Sir Charles Warren. The Boers were known to be strongly intrenched in front of Potgeiter's drift, but it was supposed that they had made no preparations to oppose an advance over Tri-

chard's drift. The forward movement took longer than was expected, on account of the great difficulty of transport over the wet ground. The first plan was to turn the enemy's position by the route opened by the cavalry; but this was abandoned when the Boers were found swarming on the heights commanding the route, and a frontal attack on their position, with the object of breaking through, was decided on. The cavalry were therefore ordered to retire from Acton Homes. On Jan. 20, while Gen. Hildyard on the right drew the attention of the Boers and an advance was made in the direction of their main position by dint of constant shelling, Sir Charles Warren's column worked its way along Taba Myama ridge toward Spion Kop. Gen. Hart's brigade attacked them and, though they had few guns and were subjected to a very heavy shrapnel fire, they stuck to their position on a commanding ridge, where they were sheltered behind bowlders and stone breastworks, and when they abandoned the trenches in the night they fell back half a mile on a still stronger position. The British casualties were 92. The opposing forces held their respective positions for three days, keeping up a fire of musketry, which did little harm. The British found that they could make no farther advance in this direction, because there was no position for their guns, and to attack the ridge they would have to cross a bare, open slope; so an advance on Spion Kop was ordered, as this eminence was supposed to command the Taba Myama ridge that the British were confronting and also the Boer positions on Brakfontein ridge, opposite Potgeiter's drift, where the Boers under Gen. Schalk Burger had constructed elaborate fortifications. As all the fighting had been on Gen. Warren's extreme left, while the mountain was outside of his right, he thought it would have few defenders and could be taken by surprise in the night. Two and a half battalions of Major-Gen. Woodgate's brigade were led by Col. Thorneycroft up the steep and narrow path in the darkness and rain, and when they reached the top of the southwest peak without being observed the 30 defenders, after one hasty volley, fled out of their trenches to escape the bayonets of the British infantry. The captors hastily dug trenches, only to find when the morning of Jan. 24 came that they were exposed to the fire of two Maxim-Nordenfeldts on the opposite peak of the mountain and four other guns behind the ridge of Taba Myama. Boer riflemen scattered over the hill slowly advanced in skirmishing order, while the machine guns shelled the trenches incessantly. The Boers drove the men out of the trenches, and were themselves driven out in turn at the point of the bayonet. Two battalions were sent up to re-enforce the rapidly dwindling detachment, while the guns that the British had placed in position on a kopje in front of Taba Myama ridge tried in vain to silence the Maxim-Nordenfeldts, drawing the fire of the unseen battery behind the ridge, with which a duel ensued. Two more battalions were sent from Gen. Lyttleton's brigade, which made an attack on the Brakfontein position to divert the attention of the Boers on that wing. These regiments climbed the eastern slope of Spion Kop, exposed at every step to the fire of sharpshooters on both sides of them. Two more battalions arrived, and the top of the hill was crowded with men who only made a better target for the guns and rifles which they could not answer effectively. To add to their difficulties, they could find no water. The men who found no shelter at the top sought cover on the side of the hill, where the Maxim-

Nordenfeldt shells played havoc among them. In the evening a mountain battery arrived, and two naval 12-pounders reached the foot of the hill, to be brought up the next day, when Gen. Hildyard's brigade was to advance against the main ridge of Taba Myama. Engineers were also on the way to intrench the position; but Col. Thorneycroft, who had succeeded to the command, Gen. Woodgate having been killed early in the action, had already given the order to retire in the night, and when the leading troops went down they met the sappers coming up. The failure to retain Spion Kop made all further attempts to cross the range hopeless, so on Jan. 25 Gen. Warren's division recrossed the Tugela. The British losses in the second attempt to relieve Ladysmith were 1,744, including 95 officers.

After another period of inactivity Gen. Buller made a third attempt to break through the line of fortifications and rescue the suffering garrison and population of Ladysmith. The movement this time had the additional object of engaging the attention and the activity of Gen. Joubert's forces so as to leave the way clear for Lord Roberts's operations. Already the Free Staters were leaving Colenso and the Ladysmith laagers, in order to be ready to resist an invasion of their country from the south or the west. Part of the Transvaal troops and guns were also withdrawn when the newly arrived British forces were seen to be concentrating in Cape Colony for action in some other quarter. The situation of Ladysmith was not as desperate as it was supposed to be after the assault of Jan. 6, and the pressure on the garrison was somewhat eased and the bombardment less trying than it had been before a part of the guns had been removed for the defense of the right flank on the Tugela and the strengthening and extension of its defenses to resist the British forces gathered there and prevent a turning movement. The British still retained Spearman's camp and their fortified position on Zwart Kop. On Feb. 5 another advance over the Tugela was made. Additional troops were brought up from Chieveley for the attack, which was made at a point east of Brakfontein, where the Boer line was weakest. While a feint was made on the left against Brakfontein by Gen. Wynne's brigade, Gen. Lyttleton's brigade crossed the river on a pontoon bridge that the engineers had built under fire and attacked and took the nearest kopje of the Vaal Krantz ridge. Creeping along under the high bank of the river for a quarter of a mile, the battalions formed in extended order, crossed an open plain under rifle fire from kopjes in front and dongas and broken ground on the right and right rear, and rushed the kopje with the bayonet. For the rest of the day they remained under a heavy fire of shrapnel, Maxim-Nordenfeldts, and rifles from the Doorn Kloof, a high mountain on the right, which was not supposed to be strongly occupied. But the Boers had posted a Long Tom and another Creusot there and concentrated a force of mounted infantry, in expectation that the British would make their advance in this quarter not by a bridge, but over the Schiet drift. Hence the hill that the British took was only weakly occupied. The advance over the river was covered by batteries on Zwart Kop previously masked. On the hill the British infantry were exposed to rifle fire from a large donga on the left, running down from Brakfontein, as well as from Doorn Kloof. They advanced along the ridge until they came to a higher kopje, where they intrenched themselves. In the night the Boers placed additional guns in position, one of them of the disappearing

pattern, and during the following day their batteries exchanged shots with the British guns on Zwart Kop and shelled the trenches on Vaal Krantz hill and the field batteries that the British were moving up. In the afternoon the Boers made a determined attack on the British in their intrenched position, and the latter wavered, but the officers rallied them till re-enforcements came presently. Other re-enforcements followed, and the British advanced along the ridge, which is a spur a mile long jutting out at right angles from the higher Brakfontein ridge. One day more they held their position, but could not advance on account of the raking artillery fire from Doorn Kloof, Brakfontein, and Spion Kop. During the night and on the morning of Feb. 8 they retreated across the Tugela.

The movement of the other force over the Pont drift, though intended only as a demonstration, was a difficult and dangerous operation both in the advance and in the retreat, executed in front of the highest part of Brakfontein. The trenches were constantly shelled by five British batteries, and there was no rifle fire until the retirement began; but shrapnel swept the column and almost put out of action a field battery, which was hastily retired.

A few days after the last action on the Tugela the Boers before Ladysmith began to withdraw in considerable numbers toward the north and across the Drakensberg.

On Feb. 14 Gen. Buller began a turning movement on the right flank. The first point seized was Hussar hill, a long ridge south of Hlangwane mountain. Infantry advanced over wooded ridges to a higher ridge east of Hlangwane and connected with it, where the enemy was intrenched, but the defenders were few and were driven back by Colt machine guns. The troops were kept still for two days on account of the heat. On Feb. 17 they captured Cingolo; and Green hill and Monte Cristo, defended by Boer artillery which did little damage because of the thick woods, were taken the next day. The British losses in the four days were 274. A British force reoccupied Vaal Krantz on Feb. 18 to reconnoiter the Boer positions on that flank, and found them practically undefended. The object of the movement was to turn the flank of Hlangwane, and that of the resistance of the Boers was to enable it to be evacuated with safety. They got their guns away from all their positions, and on Feb. 19, when the British occupied Hlangwane, their rear guard passed over Tugela river unmolested. On the same day Gen. Hart occupied Colenso, meeting with feeble resistance. The advance north of the Tugela was vigorously contested. The Free State Boers had yielded up the advanced position beyond the river in order to return to their homes and prepare for the invasion of their own country, and this necessitated the abandonment of the line of the Tugela and the raising of the siege of Ladysmith. Several days were necessary, however, to retreat beyond the Drakensberg and the Biggarsberg mountains with the heavy guns and all the stores and munitions. The artillery did not remain long to contest the passage of the Tugela. The British began the attack on Feb. 23, after what was considered a sufficient artillery preparation. They advanced, but were effectually checked by musketry fire and 1-pound shells. In a hopeless attack on Railway hill 250 Irish soldiers fell. Grobler's Kloof, immediately north of Colenso, had to be taken by storm. The Dublin fusiliers volunteered for the effort, and the heights were finally carried after a desperate contest. Two days more of

hard fighting ensued. Pieter's hill was attacked on Feb. 27, after being shelled with lyddite and shrapnel for three days, and the Boers held their trenches until forced out by the bayonet. After this Railway hill was occupied without opposition. The way was then open to Ladysmith, which was first entered on March 1 by the cavalry of Lord Dundonald, which had made a detour round the defenses on the right. The last train left with the last of the Boers' stores on the day that Gen. Buller entered the city. Some supplies were abandoned, but only 2 guns fell into the hands of the British.

The bad sanitary conditions and the resulting prevalence of disease had greatly weakened Sir George White's force, which had stood the siege for one hundred and eighteen days. The rations for the fighting men just sufficed to keep them on their feet. The only water came from Klip

ordered. At the same time Col. Baden-Powell with other officers went to Rhodesia to recruit two regiments of horse. He had at Mafeking a force of 1,500 volunteers, and Col. Kekewich at Kimberley had 3,000. Additional re-enforcements were taken from India, Egypt, and the Mediterranean stations. The addition of 10,000 men to the force in Natal was ordered on Sept. 7. This gave 25,000 regulars in South Africa. On Sept. 29 the Cabinet authorized the dispatch of a large field force, composed of an army corps of 32,000 men, a cavalry division of 6,000 men, and 9,000 men to guard lines of communication, making a total of 47,000 men, with 11,000 horses, 14,000 mules, 2,650 wagons, and 114 field pieces. Mobilization was ordered on Oct. 9, when President Kruger's warlike message was received. The battalions that were sent abroad were replaced by the militia, of which 33 battalions were called

A ZULU KRAAL.

river, which was so polluted as to cause fever and dysentery. The cavalry horses, and toward the end those of the artillery, were converted into food. In January the stock of medicines was exhausted, and the death rate increased enormously. In the fighting since the siege began 24 officers and 235 men were killed and 70 officers and 520 men wounded, while 6 officers and 340 men died of disease.

The British Mobilization.—The garrison in South Africa, from the time it was increased in May, 1897, till the failure of the Bloemfontein conference in July, 1899, consisted of three and a half battalions of infantry and two companies of fortress artillery in Cape Colony and three battalions of infantry and four batteries—three of field and one of mountain artillery—in Natal. The 6,000 infantry were without regimental transport, which was sent out in July. The first re-enforcement consisted of a battalion from Gibraltar and one from Ireland, dispatched in August when the concentration on the Natal frontier was

out. Parliament met in special session and sanctioned the dispatch of the army corps by voting £8,000,000 to maintain it in Africa for four months. The Government called out 25,000 of the 81,000 men in the regular army reserve, and of these 21,000 rejoined the colors. About 9,000 men were retained with the colors who would otherwise have been discharged from the army. The finding of steam transports and of supplies, vehicles, and animals delayed the shipment of troops till Parliament came together, when in the course of a few days 24,000 were sent off. Sir Redvers Buller was appointed commander in chief in Africa. Parliament was prorogued on Oct. 27 after a session of eleven days.

The use of heavy ordnance in the siege of Ladysmith and the skill of the Boer artillerists surprised the British, who had no siege artillery until they improvised some by sending up naval guns and gunners. The offers of the British colonies to send bodies of volunteers were not accepted at first with the idea of receiving sub-

stantial military assistance from them, but simply as an earnest of the spirit of imperial solidarity. The British military authorities had little confidence in the efficiency of such troops, and above all they wanted all the honors of victory to go to the regular army in order to redeem the inglorious defeats it had suffered at Majuba and the other battlefields of the war of 1881. For the same reasons the enlistment of Uitlander fugitives from the Transvaal and of Cape Colonists and Natalians was not encouraged at first. When afterward it became evident that the war would tax the military resources of the empire, and when the colonial corps and the South African volunteers proved better fighters than the average British soldier, larger bodies were accepted, and they were employed freely in operations where their mobility and their abilities as scouts and mounted infantry were of service, and hence some of the hardest fighting as well as the chief honors of the war fell to them. At the beginning of the war the Cape volunteers, numbering 7,000, and those of Natal, 2,500 in number, including the Imperial Light Horse, were called to arms so as to release the British garrisons, and 2,000 more were raised in Cape Colony and 1,000 in Natal.

At first a division was regarded as sufficient to establish British supremacy; but the fighting had hardly begun when the army corps was found insufficient. On Nov. 11 orders were issued for the mobilization of a fifth infantry division. On Nov. 30 a sixth division was called for, making a total force, including the cavalry division and the local troops, of 9,000 men. The Transvaal Government notified foreign governments on Oct. 12 that a state of war existed with Great Britain, but it was not till Nov. 26 that the British Government concluded to recognize the two republics as belligerent powers and notified the European cabinets to that effect. When the sixth division took its departure from England in the middle of December a seventh was immediately ordered to be mobilized, bringing the forces up to 89,070 regulars and, including the local and colonial contingents, to a total of 105,770 men of all arms. Sir Charles Warren, an old South African campaigner, was assigned to the command of the fifth division, and Lieut.-Gen. Sir Charles Mansfield Clarke to the command of the sixth. After the successive reverses of Gatacre, Methuen, and Buller, all in one week, it was found necessary to put forth the whole military strength of Great Britain, and the colonies were invited to send their best fighting men. An eighth division was ordered to be raised in the United Kingdom. All the reserves not yet embodied were called out. The militia were asked to enlist for the war, nine battalions in addition to three that had already been enrolled for foreign service, and those that had taken the place of regular troops at Gibraltar and Malta were sent to South Africa. A force of imperial yeomanry was recruited, each soldier furnishing his horse and equipment. Mounted infantry corps were enlisted, composed of men who could ride and shoot. This was the class that the colonies were expected to send also, and Gen. Buller was instructed to recruit as many as he could in South Africa. Re-enforcements of artillery, including three howitzers batteries, were sent out as soon as possible. The guns that had been sent with the army corps were found to be almost useless, as they were outranged by the Boer guns and were not effective against infantry sheltered in trenches or behind boulders on the kopjes and often hidden by hills. The ammunition was shrapnel instead of common shell. The employ-

ment of naval guns firing cordite shells was all that enabled the British troops to maintain their positions at Ladysmith, Chieveley, and Modder river. The new re-enforcements raised in the United Kingdom added 50,000 men to the 75,000 that were in the field and 20,000 that were on the way. The regular infantry numbered 61,860; cavalry, 8,660; artillery, 8,940, with 210 guns; engineers, 3,200; auxiliary services, 6,910; naval brigade, 1,100, with 38 guns; colonial contingents, 2,400; local South African forces, 13,200. The local troops were increased later to more than 25,000, the colonial contingents were increased to 4,000, and more volunteers were raised in Great Britain until there were more than 200,000 men in the field. Lord Roberts of Candahar was appointed commander in chief in South Africa, and Lord Kitchener of Khartoum his chief of staff.

The losses in battle up to January, 1900, amounted to 9,900 officers and men, and at least 30,000 were incapacitated by sickness.

The Republican Forces.—The two republics were able to put into the field, under their law of military conscription, which requires every burgher between sixteen and sixty years of age to report with horse and accouterments at the summons of his field cornet, an army of nearly 70,000 burghers, not including Uitlanders and recruits from Cape Colony and Natal. It was not necessary to mobilize their whole force at any time, because with their hardy ponies, able to subsist on the herbage that begins to grow abundantly in October, and to cover a distance of 40 or 50 miles a day, they could take their places in the ranks whenever their services were required, and even move from one frontier to the opposite one in eight or ten days, and when necessary they could carry a week's rations of jerked beef with them, and at other times enjoy an abundant commissariat supplemented by food prepared by the patriotic Boer women. The commandos were armed mainly with the Mauser rifle without bayonet, of which the South African Republic had obtained 40,000 after the Jameson raid, with 25,000,000 or more cartridges. They had also a great number of Martini-Henrys. Even before that event both governments had begun to order guns from Creusot and Krupp. The Boer gunners had been trained by French, Dutch, and German instructors. Their ammunition, however, obtained by contract, was inferior, and where their fire was most accurate the shells often failed to explode. The guns possessed by the Boers were estimated by the British Intelligence Department before the war at 60 of various sizes, including fortress artillery, in the Transvaal, and 25 field pieces of small caliber in the Free State. The military authorities of the South African Republic deceived British spies, who penetrated into the forts at Pretoria and took notes of the war material, old and new, that was visible, but did not get a chance to see guns and ammunition that were hidden away. Up to the beginning of hostilities ordnance and ammunition were imported by way of Lourenço Marques, marked as ordinary merchandise or concealed in locomotive boilers, piano cases, or other strange receptacles. After the campaign opened the Transvaal army was known to have 8 15.5-centimetre or 100-pounder Creusot guns of the Canet pattern, called by the English soldiers the Long Tom; 8 Krupp guns of the same caliber; 18 7.5-centimetre Creusot guns; 9 Maxim-Nordenfeldt 1-pound machine field guns, the kind most dreaded by the British soldiers; 24 3.7 automatic Maxim guns; 8 12-centimetre

field howitzers, half of them Krupps and half Creusots; and 4 3.7-centimetre Krupp mountain guns. The Free State artillery had 12 7.5-centimetre field guns. There were besides 18 guns of older designs. In all, with old guns, the Boers possessed about 108 pieces of artillery, and in various battles they captured 19 from the enemy. Col. Albrecht, Col. Schiel, and other German officers were the artillery instructors and commanders of the artillery in the field, and besides the Boer gunners there were many trained German, Hollander, and French artillerymen in the army. Col. de Villebois-Mareuil, a French officer, and other Continental military men served on Gen. Joubert's staff. A French engineer named Léon Joubert supervised the transportation of the great Creusot gun over the mountains from Laings Nek to Ladysmith, selected the positions for the siege guns, directed the operations of the artillery, and got it away safely in the retreat. M. Grunberg, another French engineer, saw to the repairing of the damaged matériel sent back to Pretoria and Johannesburg, the Long Tom among others, which the British in Ladysmith, by a bold sally, surprised and blew up with gun cotton. He also established a factory for projectiles in Johannesburg. The engineering, telegraph, postal, ambulance, electric, and other technical services, the search lights, the bakeries, etc., were intrusted to Europeans. The intrenchments were made by the Boers themselves, who often made them very deceptive by making mounds of the earth dug from the rifle pits on one side or in the rear, at which the English gunners fired their lyddite shells. Unseen trenches of this description excavated in advance of the elevated positions, and protected by other rows of trenches on the high ground behind them, enabled the Boer sharpshooters to inflict terrible havoc on the British infantry when it advanced to storm the position and unexpectedly received a cross fire at close range. Barbed-wire entanglements were a great impediment to the British bayonet charges. This barbed wire was imported in vast quantities shortly before the war, ostensibly for the fences along the Netherlands Railroad. The commissariat of the Boers was abundantly supplied with meat, bread, potatoes, rice, tea, and coffee, and clothing and equipment were liberally distributed. Rice, flour, and coffee began to grow scarce as the campaign advanced. The British cruisers stopped vessels going into Delagoa Bay. One was an English vessel with a cargo of American flour, and the United States Government protested. The German Government raised a protest when a German mail steamer was searched and merchandise seized. The Boer bases of supply were at home, and the transport was arranged on the relay system in three directions, requiring very few men for its protection. If one base was threatened, the supplies could be destroyed. The British, on the other hand, had to bring their supplies from over sea, and all their material as well, and to guard the long railroad lines of communication they needed almost as many soldiers as they could put into the field. The tracks were watched by natives, four in every mile, who signaled when the track was threatened or had already been tampered with. When Lord Kitchener and Lord Roberts arrived with re-enforcements their plan of campaign depended on the organization of a system of military transport equal to that of the Boers or better, one that would give mobility to the army and enable it to operate away from the railroad lines.

The entire Boer population capable of bearing arms was reckoned by the British War Office

just before the war at 31,579 in the Transvaal, including 800 artillerymen and 1,500 police, and at 22,314 in the Orange Free State. This comprised the whole estimated male population between the ages of sixteen and sixty, and was reduced in the estimate to 51,000 for both States because boys of sixteen years were not counted as fit for military duties, and to this number were added 4,000 probable recruits from the British colonies and 4,000 foreigners. Boys of less than sixteen actually fought in the Boer trenches, and showed themselves efficient soldiers and good marksmen. The actual strength of the Boer troops was estimated after the war began at 40,000 Transvaal Boers, 4,500 enlisted men, 5,000 Uitlanders naturalized before 1897, 3,000 naturalized since that date, 27,500 Free State burghers, 2,500 foreigners, and 8,500 Cape and Natal Dutch; total, 91,000.

British Invasion of the Free State.—When Field-Marshal Lord Roberts began to carry out his strategic plan he managed to conceal in a great measure the disposition and movements of his troops from the enemy. His plan was to cut off the retreat of Gen. Cronje to Bloemfontein when advancing upon the Boer position at Magersfontein in sufficient force to envelop it, though the Boer fortifications covered a front of 25 miles, both flanks touching Modder river. Col. Pilcher, on Jan. 1, with a force of Canadians, Queenslanders, and mounted infantry, surprised and captured a Boer laager at Sunnyside, northwest of Belmont, where Lord Methuen's line of communications by railroad was threatened. This was the beginning of active operations against Gen. Cronje. The important movements of troops were concealed. Freshly landed forces were sent to the front by railroad without any accurate information of their numbers reaching the enemy. On Jan. 6 Gen. Wood occupied Zoutpansdrift, a place where there was no opposing force, on the Free State side of Orange river. Gen. Cronje till now had counted on the fact that no considerable bodies of English troops could move or live in the arid country between Jacobsdal, his advanced base of supplies, and Bloemfontein. He was not ignorant of the improved mobility they had attained under the direction of the new staff. Between the British position on Modder river and Pretoria were 100 miles that had to be traversed without a railroad. To supply an army of 30,000 or 40,000 men on that march required nearly the whole of the transport that the British had collected in South Africa. Accordingly, the wagons and animals were assembled at De Aar and Orange river, and immense reserves of supplies were heaped up at De Aar and other points near the front. Gen. French was at that time spreading out his force of about 10,000 men over a front of 40 miles, and pressing the Boers back toward Orange river by threatening their flanks and rear, creating a diversion that caused them to dislocate a part of their forces to meet his advance just at the time that he quietly drew his off to take part in the intended operation of turning Gen. Cronje's position and cutting off his retreat. Gen. Kelly-Kenny, with part of a newly arrived division, was sent to Thebus, apparently threatening the central advance that everybody expected that Lord Roberts to make over the southern border of the Orange Free State; another part was attached to Gen. French's command, pointing to the same line of advance, yet within easy reach of the real objective; part moved up to Modder river. A ninth division was formed on the Modder under the command of Gen. Coleville,

composed of troops that had been holding the lines of communication. The army corps first sent to South Africa was an army corps only in name, and not only was it divided without regard to co-ordinate action, but the divisions and brigades were split up in defiance of all theories of army organization, and of the remnants of shattered units composite regiments and brigades were formed.

On Feb. 3 Sir Hector MacDonald, with the Highland brigade, to the command of which he succeeded after the death of Gen. Wauchope, a regiment of lancers, and 2 batteries of artillery, crossed the Modder, penetrated the Orange Free State to Koodoesberg, and occupied kopjes on both sides of Riet river. He was attacked on Feb. 7 by a force of Boers, who mounted guns on the same ridge; but Gen. Babington arrived with a regiment of cavalry and 2 batteries of horse artillery, and the Boers were shelled out of their positions on the mountain and at Painter's drift. The British lost 50 men. When Lord Roberts arrived at the Modder river camp on Feb. 9 Sir Hector MacDonald was recalled from his isolated position, having made a useful reconnaissance.

Already, in anticipation of Lord Roberts's plan to attack the line of communication between Jacobsdal and Bloemfontein, Gen. Cronje had begun to remove his guns and the bulk of his troops from Magersfontein and his stores from Jacobsdal, some eastward by the Modder river route, some northward around by Kimberley. The British operations when begun were executed more swiftly and thoroughly than the Boer leader expected.

On Feb. 12 Gen. French seized Dekiel's drift on Riet river, a detachment led by Col. Hanay having on the previous day defeated a Boer force on the way to Randam. On Feb. 13 3 brigades of cavalry with mounted infantry and horse artillery dashed northward to seize the drifts on the Modder. The same day saw two British divisions encamped in Orange Free State territory, having moved, one after the other, across the Riet to support the cavalry. Gen. French's cavalry seized Klip drift and occupied the hills north of the Modder, capturing 3 laagers of the retreating Boers with supplies. Col. Gordon's brigade was detached to make a feint on Rondevaal drift westward. Encountering little opposition, it occupied this drift and another nearer one, and captured 2 more Boer laagers. Gen. French made his march of 25 miles on an intensely hot day in a dust storm. Gen. Kelly-Kenny's division moved after the cavalry from Waterval drift on the Riet.

Gen. French's division pressed on, fought two engagements, and by forced marches entered Kimberley in the evening of Feb. 15. The seventh division under Gen. Tucker occupied Jacobsdal. The Boers in withdrawing from Magersfontein had pressed the siege of Kimberley and drawn their lines closer. When Gen. French arrived a considerable force was still there. He manoeuvred south of the town, and they scattered without offering much resistance. There were 14,000 white people and 19,000 blacks in the civil population, and the garrison numbered about 6,000. The meat ration was reduced to a quarter of a pound months before, and since early in January it had consisted of horseflesh. Typhoid fever, dysentery, and typhus were raging, and among the blacks scurvy also. The death rate was three times as great as in normal times. Supplies of provisions were brought up from Modder river as soon as possible, and a force under Lord Methuen occupied the place. When Gen. Kelly-Kenny's

division reached Rondevaal drift in the evening of Feb. 15, scouts brought in the intelligence that a large convoy was moving along eastward, and a brigade started in pursuit.

Gen. Cronje with the remainder of his force evacuated Magersfontein, fell back on Jacobsdal, loaded 1,000 transport wagons with the supplies and ammunition, and retreated in all haste along the Modder. By Feb. 15 the last of the Boers had left Spytfontein and Magersfontein. The British overtook the Boers, who formed a laager on Drieput kopje, by the Klip drift, abandoning 78 wagons laden with stores and 2 laden with Mausers, shells, and other munitions. Gen. Cronje was compelled to go into laager, owing to the fatigue of his oxen, and this gave time for the rest of the sixth division to come up. The seventh and the ninth divisions were brought up also as soon as possible. The cavalry, which had been engaged in dispersing the small force of Boers around Kimberley, returned to take part in the pursuit. Lord Kitchener assumed the command. The battle of Feb. 16 at the Klip drift went on all day. The British field pieces were overmatched. Naval guns were sent forward. The Highland brigade came up by a forced march, while the Boers continued their retreat to Paardeberg, greatly hampered in their progress by the ox wagons and harassed by Gen. French's cavalry. They occupied successive kopjes in order to protect the slowly moving convoy, and kept up a continual artillery fight with the British, following in the rear. A convoy of 180 wagons laden with provisions and ammunition and 2,800 oxen destined for the British forces was captured by Commandant De Wet after a fight with the guard in which the Boers took 58 prisoners. On Feb. 18 Gen. Kitchener endeavored to surround Gen. Cronje's laager near Paardeberg. He also made repeated direct assaults, in all of which the British were driven back with heavy losses, while those of the Boers were trifling. The object was to prevent the escape of the Boers and to hold them there until the British forces should be strong enough to complete the investment. Every mile that Cronje won brought him within easier reach of the re-enforcements that were coming from Natal and the southern border and farther from the British base. Commandant De Wet, with his 1,800 men, was already impeding the operation by driving parties from kopjes that they had occupied.

Gen. Cronje's laager was at Koodoosrand drift, a defensible position which he had made every effort to reach before being brought to a stop. The mounted infantry came up with the Boer rear guard in the night of Feb. 17 and drove it up the river toward the main body, which was laagered on the north bank. The main body of Gen. Kelly-Kenny's division advanced on the same side of the river to outflank the enemy, while mounted infantry on the south bank manoeuvred on the Boers' right front and flank, thus inclosing their whole position and holding the two drifts. The British troops advanced to the attack early in the morning and were under fire all day. They could only approach over level ground on either bank, and the Boer force, which had dwindled to a mere guard for the convoy, was able to check every advance in spite of the vast numerical superiority of the assailants, who were forced to retire or to lie down flat. At night the positions remained unchanged. The mounted infantry who harried their rear the Boers kept off by means of intrenchments thrown up during the night in the dry bed of the river. The attack was begun early in the morning. The

Highlanders forming part of Gen. Coleville's division, which had come up in the night, advanced on the right flank and rear while the enveloping movement was carried out, the other regiments swinging round in a long line to the front. The assault of the Highland brigade was stopped immediately, the men throwing themselves down on their faces. A large force which included the Canadian regiment was led by Gen. Smith-Dorrien in a charge against the laager, and was met by shell fire and stopped effectually by rifle fire. A Vickers-Maxim and other guns mounted on a kopje on the south bank prevented a convergent attack. The high banks on both sides of the river afforded excellent vantage ground for the Boer riflemen, who kept off the British infantry and mounted men on both sides. Toward evening the British batteries began firing from the rear, forcing the men in the river bed to fall back to the sheltered ground near the laager, which was shelled also with such destructive effect that the Boers removed their wagons, animals, stores, and whole camp to the bed of the river. Gen. French's cavalry division arrived during the battle and, proceeding to the front, confined the Boer detachments that were escaping. On the next day Gen. Tucker's division arrived, and the naval brigade a little later. Gen. Cronje could use his small machine guns at first with good effect, but his efforts to mount his heavier guns were frustrated by the British artillery fire.

Lord Roberts superseded Lord Kitchener in the command after the second day's battle. He was anxious to avoid the heavy loss to be incurred by following up the plan of an infantry attack, and, having great superiority in artillery and a line of investment inclosing Gen. Cronje's position, he decided after a reconnoissance in force to bombard the Boers in the river bed, using his large force of mobile troops to form an outside line for the purpose of intercepting the small bodies of Boers that were now pouring in from Natal and other quarters to re-enforce Gen. Cronje. Several of these bodies were driven off in various directions on Feb. 20, and on one kopje 50 men who had come from Ladysmith surrendered on being shelled. The bombardment with 56 guns was kept up two days. Lyddite shells exploded in all parts of the bed of the river, while shrapnel searched every bush and donga. The wagons and everything combustible were set on fire and the animals were killed, but the people found shelter under the banks of the river, except those on the firing line, some of whom crept out to take aim at the naval gunners, who were firing at a range of 1,000 yards. At the end of the first day's battle, when his cordon was drawn completely around Gen. Cronje's camp, Lord Kitchener asked the Boer commander if he would not surrender so as to avoid useless bloodshed. Piet Cronje replied that he still had men and ammunition, and saw no need of surrendering. He knew the need that Commandant-Gen. Joubert had of time to concentrate his widely distributed forces and prepare his second line of defense, and determined that he would hold the invading army in check as long as it was possible for him to prolong his resistance. Lord Kitchener began the bombardment the next morning, and at the close of the day Gen. Cronje requested an armistice for twenty-four hours to enable him to bury his dead. This was refused, and he sent word that if the British general was so inhuman he saw no other course than to surrender. Lord Kitchener set out to meet him, and was met by a messenger who said that Gen. Cronje had made

no proposal to surrender; that he would fight till he died. All the batteries then went into action, concentrating their fire on a space not a mile square. Gen. Roberts reconnoitered the position when he took command, and continued the bombardment. Commandant Botha brought a considerable force to relieve Gen. Cronje, but Gen. French's cavalry stopped him. Other re-enforcements kept coming, which required the attention of the mounted men and the infantry who occupied the surrounding kopjes. On Feb. 22 and succeeding days the shelling was continued intermittently while the British pushed their trenches nearer and nearer. The hope that the burghers who were known to be operating north and east of the British positions would break through the line and enable the besieged force to escape was abandoned after the dispersion of Botha's large command on Feb. 23. Howitzers had been brought up and observations from a captive balloon enabled them to drop lyddite shells wherever the Boers appeared in the bed of the river, and the other guns and the infantry to put a stop to any activity. The river bed and banks were raked by field and machine guns at a range of 1,000 yards, and the line of intrenchments was worked up to 600 yards. In the night of Feb. 26 the Canadians and engineers dashed forward and seized a place where they could intrench themselves only 80 yards from the Boer trenches. The Boers had expended all their ammunition, and could offer no resistance to the expected assault. The next morning Gen. Cronje sent a letter stating that he surrendered unconditionally, and afterward, on the demand of Gen. Roberts, he presented himself at the British camp and marched his men out of the laager after they laid down their arms. Only 3,000 were left out of 8,000 with whom he began his retreat from Magersfontein, most of the rest having separated from the command during the rear guard fight. The casualties had not been very heavy, but the condition to which the men were reduced before surrendering, the lack of food and water, and the effluvia from decaying corpses that they had to endure could not be supported longer. The men were sent in charge of their own officers to the prison ships in Simon's Bay, and Piet Cronje was deported to St. Helena.

Gen. Roberts had an army of about 50,000 men. On March 2 he established his camp at Osfontein. A few miles southeast of that place Col. Remington's scouts came in touch with the Boers. The united commands of Botha, Prinsloo, and De Wet formed a force of about 6,000 men, which acted as a corps of observation, retiring as the march of the British was resumed. When Lord Roberts entered Bloemfontein President Steyn and the officials had departed for Kroonstad, which was proclaimed the new seat of government. Lord Kitchener went to Arundel, where the Boers had lately been pressing the colonial troops under Gen. Clements. A rebellion that had broken out in Cape Colony was kept in check by placing a large force in the rebellious district, and the 3,000 rebels soon surrendered their arms or returned to their homes. The Republicans evacuated the positions they held in the northern part of Cape Colony and made their way northward, while of the colonists who had joined them some went along with them, some quietly resumed their peaceful occupations, and some surrendered their arms. Many of the burghers of the Free State in the districts occupied by the British gave up their weapons. The large body of Boers commanded by Olivier at Stormberg retired to Rouxville, and marched thence to join Gen.

Joubert near Kroonstad, having an immense train of wagons to protect, with which they made their way round by the Basutoland border and the Drakensberg before the arrival of Gen. French's cavalry, which sought to intercept them. Commandant Olivier's force from Colesberg joined the commands of Botha and De Wet in the attempt to re-enforce Cronje. After Cronje's surrender and the occupation of Bloemfontein President Kruger, after a conference with President Steyn, in a circular note to the United States and of the European powers, asked their mediation to secure peace on the basis of the preservation of the independence of the republics. The United States Government, which had undertaken at the beginning of the war to care for the interests of British subjects in the Transvaal through its consul in Pretoria, was the only one that addressed a communication to the British Government on the subject. Lord Salisbury replied that no proposals of mediation by a foreign power would be considered.

SOUTH CAROLINA, a Southern State, one of the original thirteen, ratified the Constitution May 23, 1788; area, 3,750 square miles. The population, according to each decennial census, was 249,073 in 1790; 345,501 in 1800; 415,115 in 1810; 502,741 in 1820; 581,185 in 1830; 594,398 in 1840; 688,507 in 1850; 703,708 in 1860; 705,606 in 1870; 995,577 in 1880; and 1,151,149 in 1890. Capital, Columbia.

Government.—The Governor, William H. Elerbe, died June 2. The Lieutenant Governor, Miles B. McSweeney, succeeded, and the President *pro tem.* of the Senate, R. B. Scarborough, became Lieutenant Governor. The other State officers in 1899 were the following: Secretary of State, Marion R. Cooper; Treasurer, W. H. Timmerman; Comptroller, John P. Derham; Attorney-General, G. D. Bellinger; Superintendent of Education, John J. McMahan; Adjutant General, J. W. Floyd; Railroad Commissioners, Messrs. Evans, Wilborn, and Garriss; Phosphate Inspector, S. W. Vance; Chief Justice of the Supreme Court, Henry McIver; Associate Justices, Eugene B. Gary, Ira B. Jones, and Y. J. Pope; Clerk, U. R. Brooks—all Democrats.

Finances.—The receipts for 1899 were \$3,253,020.79; this included the cash balance of \$450,077.06 left from 1898. The general taxes of 1899 (paid this year) amounted to \$586,982.57, and those of 1899 (paid) to \$243,213.85. The privilege fertilizer tax brought \$62,123.88, and the phosphate royalty \$39,279.28. The disbursements were \$2,744,145.14, leaving a balance of \$508,875.65. The larger items of expense were: Salaries, \$145,082.58; legislative expenses, \$43,589.94; educational, charitable, and penal institutions, \$227,359; pensions, \$101,145.55. The treasury received from dispensary sales \$1,593,240, paid on the account proper of the dispensary \$1,428,008.79, and transferred to the school fund from dispensary \$75,000.

The State entered a claim against the Government for reimbursement of expenses incurred in organizing and equipping troops for the war with Spain; and the treasurer was notified that the Government holds bonds of the State amounting with interest to \$248,750. On the other hand, again, the State has Revolutionary War claims amounting to about \$550,000; and of this about \$350,000 is said to be principal and interest of a debt acknowledged by the Government in 1831, as proved by official documents.

The taxable property as assessed for 1899 was \$176,422,288, an increase of \$3,185,183 over the amount in 1898.

The income tax law is not enforced. More than 20 counties made no returns, and less than \$10,000 was collected in 1898.

Education.—The total enrollment in the public schools is more than 276,000. The majority of pupils are colored.

The Winthrop Normal and Industrial School for Girls, at Rock Hill, has 348 students in the college classes. The Legislature this year increased the number of scholarships to 124.

The Citadel Military Academy, at Orangeburg, graduated only 9 this year—a small class, owing to the expulsion of 64 cadets last year.

Clemson College graduated 16 and had 325 students. Newberry College gave diplomas to 15, and Wofford College to 10.

M. B. MCSWEENEY,
GOVERNOR OF SOUTH CAROLINA.

The summer school for teachers at Rock Hill was the largest gathering of educators ever held in the State, about 300 having been present.

The Southern Chautauqua was chartered in May, with a capital of \$25,000, in 5,000 shares. The Isle of Palms, Charleston, is chosen for the location of the institution. Its objects as given are "to establish and maintain schools and lecture halls and to forward in every way literary, scientific, moral, and æsthetic culture."

There were 607 students at the State college for colored students, including those in the model school and the preparatory department; in the college classes, 60.

Charities and Corrections.—There was an average this year of 906 inmates at the State Hospital for the Insane; 1,399 were under treatment at some time during the year. The number of recoveries was 102, or about 25 per cent. of the admissions. The cost of maintenance was \$102,342.43.

The Institution for the Deaf and the Blind enrolled 196 pupils, who were taken care of at an average cost of \$132.

There were 801 convicts remaining in the Penitentiary Dec. 31. The receipts, including a balance of \$4,804.44, were \$68,322.67, and the disbursements \$58,436.

The Legislature ordered an investigation of charges against the management of the Penitentiary, and a committee was appointed. The retiring superintendent, W. A. Neal, was alleged to be short in his accounts; this was found to be true, and careless and dishonest management was also proved. The State property had been given away, and convicts had been employed to work for the superintendent's friends. Several men in public life were involved in this scandal. The convicts were found to have been treated well, and the State farms were well managed. The receipts of the institution were \$11,104.41 short, but the bondsmen could be held for only \$2,812.41, which they promptly paid. Three indictments were found against Col. Neal—one for failing to turn over moneys to his successor and two for breach of trust with fraudulent intent, upon which he is to be tried in 1900.

The report of the Attorney-General says there were 227 trials for murder in the State during the year, and 97 convictions.

The Dispensary.—The House, at the legislative session, passed a resolution condemning the beer dispensaries, and in September the Board of Control announced that they would be closed, and that semisterilized beer would be supplied to consumers through the regular county dispensaries. J. B. Douthit, a former member of the Board of Control, was chosen commissioner of the dispensary in April. He was removed in October by a vote of three to two members of the board. He refused to vacate, and this led to an investigation in which serious irregularities were charged upon the dispensary management in sworn statements. The judge before whom the case was brought decided in November that the commissioner had been improperly removed.

The number of seizures during the first six months of the year was 673; the cost of the constabulary \$15,634.89. The special dispensary school fund for 1898-'99 amounted to \$130,000. There were 372 violations of the dispensary laws and 100 convictions.

The Governor, in June, reduced the force of constables from 59 to 34. The Supreme Court decided in July that constables must wear their pistols in sight, having no more right to carry concealed weapons than other citizens.

Railroads.—The added mileage this year amounted to 237. The total earnings of the roads in the State were \$3,916,383, an increase of \$827,053 over those of 1898; the expenses, \$5,831,246; the taxes, \$383,716. The Governor says: "One of the most important changes in the railroad situation during the year has been the leasing of the South Carolina and Georgia Railroad by the Southern Railway system. The result of this transaction has been to give the city of Charleston a continuous mileage tariff to all sections of the State reached by these lines. The same is done by the Atlantic Coast Line system."

Insurance.—Premiums amounting to \$1,948,824.39 were reported for the year ending Sept. 30; on these the State tax, $\frac{1}{4}$ of 1 per cent., was \$9,743.63. This does not include taxes paid to counties and municipalities. No tax is laid upon fraternal or assessment companies, and no record is kept by the State of their operations. More than 100 companies operate in the State, and the Governor recommends an examiner for banks and insurance companies.

The Supreme Court decided in a case before it in March that in assessment insurance the contract is suspended by nonpayment of assessments, and if the property is burned before assessments are paid there can be no recovery of insurance.

Militia.—The militia has been reorganized, and the active force now numbers 3,000 men. The design is to have this force well organized and equipped. Small companies to the number of 34 have been disbanded, and 45 strong companies have been retained. The force is to consist of 1 regiment of cavalry, 2 regiments of infantry, 1 battalion of infantry, 1 battalion of naval militia, 1 battery of artillery, and 1 battalion of infantry known as National Guard.

Cotton Mills.—Statistics from the office of the Secretary of State show that 11 cotton mills have been chartered and fully organized this year, with an aggregate capital of \$3,275,000; existing mills, 16, have increased their capital stock by \$2,429,000; and 14 mills have taken commissions of incorporation with a total capital of \$2,275,000.

Cotton.—The production of cotton in the State in 1898-'99 is given as 960,000 bales.

Lawlessness.—For the murder of the negro postmaster at Lake City in 1898 (see Annual Cyclopædia for 1898, page 699) eleven men were placed on trial, April 10. Two others who were indicted turned State's evidence. The case ended in a mistrial, the jury having failed to agree; five, it is said, were for conviction. The citizens have petitioned for the reopening of the post office, which was closed by the Government after the crime. The closing of the office obliged them to go three miles for their mail.

Six colored men who caused the death of an old negro by whipping him after the manner of "whitecaps" for alleged immorality, and to imitate Florence, found guilty, and sentenced to imprisonment at hard labor for life. One other eighth was tried with them was acquitted, and an eleventh implicated had turned State's evidence.

In a case of a claim for damages on account of the lynching of a negro, Lawrence Brown, who had been arrested on a charge of arson and dismissed by the magistrate, a jury in Orangeburg County found for the county, under instructions from the judge, because he was not taken from officers of the law, and it was held by the judge that the provision of the Constitution of 1895 allowing \$2,000 or more damages to the estate of a person lynched did not apply unless the prisoner was in the care of officers. The Supreme Court reversed this decision and ordered a new trial, which took place, and in October a verdict was again brought for the county.

A negro who was found in a white girl's room in Greenville by her father, Aug. 22, and allowed by him to go, on the plea that he was drunk and did not know what he was doing, was taken at night by a mob, hanged to a tree, and shot.

An attempt by three constables to search the house of John Stuart, in Columbia, in February, for liquors said to be kept for sale contrary to the law, resulted in an affray in which Mrs. Stuart was mortally wounded by a shot from one of the constables, who was tried and acquitted in June.

Three days after the above-mentioned incident a newly appointed dispensary constable was shot by a former friend in a quarrel that began with the accusation against the constable that he was a spy. He lived only a few hours after being wounded.

Legislative Session.—The General Assembly met Jan. 10 and adjourned Feb. 21.

R. B. Scarborough was elected President *pro tem.* of the Senate and Frank B. Gary Speaker of the House. The right of the representative and the Senator-elect from Lee County to seats was questioned on the ground that the Supreme Court had declared the act of the General Assembly establishing the county to be null and void, since it was shown that the proposed change was not voted for by two thirds of the electors in the part of Darlington County that was to form part of Lee, and they were excluded.

About 150 acts and joint resolutions were passed. Several bills were introduced in regard to the distribution of the profits of the dispensary, and the two houses finally united upon a bill to apply the dispensary profits to make up the deficiencies in counties where the schools could not be kept open three months with the proceeds of the poll taxes and the constitutional 3-mill tax. Bills for radical changes in the dispensary system failed. The use of the palmetto tree upon dispensary bottles was forbidden.

Combinations of fire insurance companies to control rates were prohibited on penalty of revocation of license.

Provision was made for the increase and reduction of capital stock by corporations other than railway, turnpike, and canal companies. It is forbidden to levy and collect taxes to pay township bonds in aid of railroads not completed through the townships and not accepted by the Railroad Commissioners.

The law for inspection of fertilizers was amended. They are not to be sold without the stamp or tag showing that they have been inspected. Dealers in long, or sea island cotton in the seed are to pay a license of \$50. A maximum schedule of charges for the sale of leaf tobacco by warehouses was fixed. Cotton bales weighing 300 pounds or more are made merchantable, and buyers are required to accept them.

Loans by the Sinking Fund Commission must be repaid in gold or silver coin, in United States currency, or national bank notes. A poll tax of \$1 a year is to be levied, the proceeds to go to public schools. The penalty for nonpayment is \$5 to \$10 or imprisonment ten to twenty days. Liens for taxes are to expire in ten years.

An instrument without a seal shall be construed as having a seal attached when it is clear that the makers intended it to be sealed. It is required that the affidavits upon which a warrant attachment is granted be filed at once, and copies served upon the defendant.

A general law was made for the amendment of town and city charters. The metropolitan police law was repealed. Places of 45,000 may acquire lands for hospital, park, and other municipal purposes. Such cities or towns, before contracting debt beyond their income for the current year, except for light, water, and sewerage, must declare their intention by a two-third vote in council, must affirm this declaration by a two-third vote of electors, and must submit the proposition to the Legislature for approval. Towns of 500 to 1,000 may maintain fire departments and establish fire limits.

The act for establishing new counties and for changing county lines and moving county seats was amended. Recent legislative acts establishing new counties, found to be unconstitutional, were repealed and the former status restored. County supervisors may exchange convict labor and hire such labor, one county from another.

Persons holding offices of the State or in public institutions are forbidden to take compensation other than that provided by law. An act was passed creating a board of county commissioners, taking the place of the present county and township commissioners, who are to continue in office as county boards of equalization and township assessors.

The tax levy was fixed at 5 mills. Among appropriations were: To South Carolina College, \$25,000; to the Citadel Military Academy, \$20,000; to the negro college, \$15,000; to Winthrop, \$35,450, of which \$5,450 is for scholarships; for the militia, \$8,000; to the Asylum for the Deaf and Blind, \$19,000; to the Hospital for the Insane, \$108,800; Catawba Indians, \$800.

Among other measures were the following:

Making distress for rent subject to prior liens on property; landlords may issue distress warrants where tenants remove from their premises before expiration of the contract.

Making desecration of graves and cemeteries a misdemeanor.

Requiring travelers on roads, causeways, and bridges to keep to the right of the center.

Permitting the State Board of Health to order vaccination and enforce orders.

Requiring the State Board of Health to co-

operate with the Government in establishing quarantine rules for the protection of the live stock industry.

Authorizing the utilization of the county chain gang for labor for preserving public health.

Requiring employers of women in mercantile establishments to provide seats for them.

To prevent shooting on the highways.

Making it a misdemeanor to order work to be done in shops on Sunday.

To provide for immediate payment of wages due discharged laborers.

To punish persons digging ginseng from March 15 to Sept. 15.

Permitting convicts sentenced for less than five years, instead of three, to be employed in the chain gang.

Decisions.—The statute allowing an owner of land surrounded by private lands to gain a private road to a highway by condemnation proceedings was pronounced unconstitutional this year, as taking private property for private use without the owner's consent.

Two decisions were rendered in regard to dogs—one that they are property and may be subjects of larceny; the other, that a railroad company can not be charged with negligence and held for damages for the killing of a dog upon the track by a train.

In a case of the State against a railroad in which it was sought to collect taxes on property which, it was alleged, had been escaping taxation, the court decided that assessment was necessary to produce liability, and as the complaint did not claim that the property had been assessed there was no liability.

Claims against the Government.—The Governor in November wrote to the governors of other Southern States, asking their co-operation in recovering from the Government moneys claimed to be due to citizens of those States. The amount, the letter says, is about \$11,000,000, arising from the sale of cotton seized by the forces of the United States and its Treasury agents during the period of the war and during a few years thereafter.

SOUTH DAKOTA, a Western State, admitted to the Union Nov. 3, 1889; area, 77,650 square miles. The population, according to the census of 1890, was 328,808. Capital, Pierre.

Government.—The following were the State officers in 1899: Governor, Andrew E. Lee, Populist; Lieutenant Governor, John T. Kean, Republican; Secretary of State, William H. Roddle, Republican; Treasurer, John Chamber, Republican; Auditor, James D. Reeves, Republican; Attorney-General, John L. Pyle, Republican; Superintendent of Schools, E. E. Collins, Republican; Commissioner of School and Public Lands, David Eastman, Republican; Adjutant General, H. A. Humphrey; Mine Inspector, James Cusick; Oil Inspector, R. E. J. Meyer; Public Examiner, Maria Taylor; Commissioner of Insurance, L. C. Campbell; Surveyor, William L. Bruce; Veterinarian, J. W. Elliott; Chief Justice of the Supreme Court, Dighton Corson, Republican; Associate Justices, Dick Haney and Howard G. Fuller, Republicans; Clerk, Miss Jessie Fuller.

Finances.—The report of the Treasurer for the year ending June 30 shows the receipts from all sources to have been \$1,048,979.28. The disbursements were \$1,011,387.28. Among collections were: From counties, \$237,674.79; lease of lands, \$2,382.75; liquor license, \$56,752.28; insurance, \$21,239.87; miscellaneous, \$131,324.77; telegraphs, \$8,874.94; telephones, \$2,984.07. Receipts from counties for the insane tax were \$85,-

525.31; sleeping-car companies paid \$352; express companies, \$2,512; licenses for grain warehouses amounted to \$762; the State Reading Circle fund was replenished to the amount of \$1,460.85. On the bond interest and sinking fund \$145,004.87 was collected; on the constitutional bond fund, \$13,043.06; and on the Taylor deficiency school fund bonds, \$31,792.92. The bonded debt was decreased materially; the amount of bonds due was \$708,300, of which \$440,800 was in coupon bonds and \$267,500 in registered bonds. The entire debt falls due in twelve years. At the close of the year there was more than \$150,000 in the bond interest fund.

Education.—The school population this year was 116,278, an increase of 3,467 in one year. The amount apportioned from the land fund was \$202,436, giving about 30 cents more *per capita* than in any previous year. The Legislature appropriated \$22,000 for the Madison Normal School, \$25,000 for the Spearfish Normal, and \$19,500 for the Agricultural College, at Brookings. The college has established an experiment station at Highmore, in Hyde County, where special attention will be given to the growing of hard grasses that will do well in dry climates.

Charities.—A terrible catastrophe occurred at the hospital for the insane at Yankton at two o'clock in the morning of Feb. 12. A fire broke out in the laundry building, which was used as a cottage on account of the crowded condition of the institution. Of the 40 inmates housed in the 3 stories of the building, 17 lost their lives. The 12 attendants in charge of them escaped. The coroner's jury brought in a verdict, finding that no one was criminally responsible for the fire, but found also that "by reason of insufficient appropriations no night watchman had been employed on the hospital grounds for at least four years." There was no insurance upon the burned building. The Legislature appropriated \$70,000 for improvements. The contract for building the Northern Hospital for the Insane, at Redfield, was let in October for \$22,500. The Home for the Feeble-minded, for which the Legislature provided, is to be at Redfield.

The Government is to build an asylum for insane Indians at Canton. The site selected contains 160 acres, and the appropriation is \$45,000.

Military.—The Governor wrote to the President in April, asking for the return of the First Dakota Regiment from the Philippines, since the war for which it was enlisted had ended, and criticising the course of the Administration in carrying on the war in the islands as an "attempt to enforce title with bayonets to a nation of brown men purchased from a disgraced and vanquished despot," after this nation had spent blood and treasure "to repudiate the theory that the white man could buy the body and force the services and the allegiance of the black man."

The volunteers reached home in October, and were received with great rejoicing. A fund of \$31,000 for paying the transportation for them from San Francisco was raised in the State, with the understanding that the next Legislature will reimburse the contributors. A list of those in the service in the Philippines who lost their lives before May 14 numbers 57; of these, 30 died of disease, 1 was drowned, and the others were killed or mortally wounded in action.

The State has credit with the War Department for arms and equipment of troops, which will be returned in equipment for the reorganized militia.

River Improvement.—The War Department in the spring approved plans for improving the Missouri from Sioux City, Iowa, to Bismarck,

N. D., involving an outlay of \$170,000; of this, \$100,000 is to be used at Yankton, Elk Point, Pierre, and Fort Pierre.

Railroads.—Several new roads are projected, and preparations were made for beginning work in the autumn. A new road between Yankton and Omaha, and a road to the Black Hills, to be known as the Dakota Southern, are among the new enterprises. An estimate of the taxation of roads in the State makes the average \$89.52 a mile. The Railroad Commissioners are engaged in litigation with the Milwaukee Railroad in reference to maximum rates. The commission costs the State \$15,000 a year.

Banks.—The condition of the 26 national banks, Feb. 4, was given as follows by the Comptroller: Since the date of the last report, Dec. 1, the resources have increased from \$7,753,037 to \$7,904,095; loans and discounts decreased from \$3,344,339 to \$3,335,257; reserves increased from \$1,683,905 to \$1,732,693, of which gold holdings increased from \$310,322 to \$341,028. The deposits increased from \$4,792,607 to \$4,974,434, and the average reserve held decreased from 36.23 to 36.11 per cent. The Yankton Savings Bank suspended payment Nov. 22, in consequence, it seems, of a run precipitated by the fact that the county treasurer, who had defaulted, was known to have deposited public funds there.

Products.—The amount of gold produced from Black Hills mines in 1899 is reported by the Mine Inspector at \$9,131,436. The Homestake leads with \$2,674,336. The resources of the State have been summed up as follow: "South Dakota is third in the production of gold of all the States. She is also third in the production of wheat, first in the production of flax, fifth in barley, oats, and rye, about eighth in wool, and tenth in live stock. She is also high among the States in the production of dairy products, and is a liberal producer of almost all known minerals and coal, and even natural gas in many localities."

Lands.—From a statement published in March it is learned that of the 168,000 acres of Government land opened for settlement two years ago on the Yankton Indian Reservation in Charles Mix County, all but 15,000 acres have been entered by actual settlers. These lands have cost the settlers \$3.75 an acre, but when it is considered that they are in one of the favored sections of the State and largely on the Missouri bottom, it will be seen that the owners have made an excellent bargain. Much of the land is now worth \$12 to \$20 an acre.

Tolstoi.—The following was published in August: "Near the Nebraska line, in the eastern part of the State, lies the new village of Tolstoi. It is neither on the maps nor on the railroad, but is a thriving village. Although but two weeks old, it has a school, a church, and a store. Tolstoi is occupied by a band of Russians, exiled on account of religious persecution from their mother country. They came from the province of Kherson, in the eastern part of Russia. All are of the Dhouchoborski faith, which means spirit wrestlers. The store, as well as the farm and school property, is owned in common, but the members are allowed to have individual property, as they pay their quota of the running expenses of the plant. The colony has about 3,000 acres of land in one body."

Legislative Session.—The sixth biennial session of the Legislature began Jan. 3 and ended March 3. The Republicans were in a majority in each branch. A. G. Somers was Speaker of the House.

The Public Examiner made a report criticising

the management of the office of Oil Inspector Dowell, finding that it had been conducted with little or no system, that the fees had all gone to maintain the office, and that some items of the expense account indicated a scandalous condition of affairs. Report was made also on the State Treasurer's office. The Examiner could not find that any of the interest received by Treasurer Phillips had been turned over to the State. The Governor estimated that the Treasurer had received \$52,653.86, which should have gone to the State, but the Attorney-General could find no law to compel the Treasurer to account for interest on the daily balances.

A constitutional amendment was adopted at the State election of 1898, establishing the dispensary law for the sale of liquors, but it could not go into effect until a method of administering it should be prescribed by the Legislature. Bills with this intent were introduced, but none were passed. Instead, the question was resubmitted, and in 1900 the voters will have before them the question of repealing the amendment that they adopted in 1898. Meantime, the liquor license law continues in force, as was decided by the Supreme Court in a test case brought before it in September.

A new registration law was enacted.

A bill was passed prescribing the method of carrying into effect the initiative and referendum amendment to the Constitution adopted at the election of 1898.

The game and fish laws were made more stringent; provision was made for licensing hunters and for protecting large game.

An act was passed to classify cities according to their population. The issuing of bonds by cities for water works and the refunding of bonds were provided for.

Supplies for State and county institutions must be bought, as far as is practicable, within the State or county. An appropriation was made for a building for the care and training of feeble-minded persons. Tuition in State educational institutions is to be free to soldiers and sailors and orphan children of men who have served in the army or navy.

Acts were passed offering bounty for killing wolves, coyotes, and mountain lions; for preventing the spread of disease among swine, and for preventing the shipping or driving of stolen cattle from the State.

The laws in regard to location certificates on mining claims were amended, and it was provided that owners of mining claims must post copies of mortgages before employing laborers.

The levy and limitation of taxes was regulated. Taxes may be paid in two installments. Buildings must not be removed from city lots nor timber from claims till taxes are paid.

Property sold under judgment subject to redemption may be redeemed by payment of the purchase price with 7 per cent. interest instead of 12 as formerly.

Bonds for sites or buildings, or for refunding indebtedness, are limited to 4 per cent. of the assessed valuation instead of 3 per cent. as formerly. Districts having debts beyond the constitutional limit may issue extension coupons on bonds coming due.

Other measures were as follow:

Relating to the divulging of telegraph and telephone messages, imposing a penalty of \$50.

Providing that adulterated food must be labeled as such.

Creating a State board to license embalmers.

Providing that graduates of schools of oste-

opathy may receive certificates allowing them to practice, though osteopathy is defined as not the practice of medicine within the meaning of the law.

An act regulating the assessment and collection of taxes for artesian wells was declared partly void, since the assessments were graduated in proportion to the relative distance from the well, while the Constitution requires taxes to be in proportion to the value of property and limits special taxation for local improvements to cities, villages, and towns.

The general appropriation bill amounted to \$891,750; the appropriations for deficiencies to \$58,742.32; for judgments and claims, \$4,133.27; to replace burned public buildings, \$67,500; for new buildings, \$141,000; for legislative expenses, \$71,000; for printing, \$17,000; total, \$1,251,125.59.

Memorials to Congress were adopted relating to savings banks, to taxes on Indian allotments, to free homesteads, to Fort Meade (asking that it be made permanent), to the treaty with Spain (that it be heartily and promptly supported), and for the establishment of a branch of the national home at Hot Springs, S. D.

A law of 1893, providing that property sold under mortgage foreclosure might be redeemed within one year, or within two, provided the mortgagor pays at the end of the first year the taxes, the interest due, and the interest for a year in advance, is declared void as regards mortgages given before it was passed, on the ground that it impairs the obligation of contracts.

Political.—An election for 3 justices of the Supreme Court was held in November. The Republican convention, at Aberdeen, June 28, renominated Judges Dighton Corson, Dick Haney, and Howard G. Fuller. The resolutions were strongly in favor of the principles of the party and the policy of the national administration.

The Populists, Democrats, and Free-Silver Republicans united in convention at Mitchell, Sept. 4, and nominated Edmund Smith, Silver Republican, C. B. Kennedy, Populist, and Julian Bennett, Democrat. The resolutions approved the Chicago platform and advocated the nomination of Mr. Bryan; denounced the Philippine war as a repudiation of the Declaration of Independence and of the Monroe doctrine, and an assault upon liberty; demanded the political independence of Cuba; and deprecated the formation of trusts.

The Republican candidates were elected, receiving majorities of 6,231, 6,029, and 5,189 respectively, in the order of their names as above. The total vote cast was nearly 42,300, about half the number of electors.

SPAIN, a kingdom in southwestern Europe. The legislative power is vested in the Cortes, consisting of a Senate of 360 members and a Congress of 432 members. Of the Senators half are life and official members and half are elected by the provincial and communal assemblies, ecclesiastical bodies, universities, academies, and individuals paying the highest taxes. The Senators in their own right number 80, including royal princes, if there are any, grandees of Spain having an income of 60,000 pesetas, captains general of the army, admirals of the navy, archbishops, and the presidents of the superior tribunals. The Senators appointed by the Crown for life number 100. The elective Senators sit for ten years, the moiety being renewed every five years, but if the Cortes are dissolved all go out. Every Spaniard twenty-five years of age enjoying full civil rights and a citizen of a municipality for two years possesses the right of suffrage.

The present King is Alfonso XIII, born May

17, 1886, the posthumous son of Alfonso XII, for whom his mother, Maria Cristina, daughter of Archduke Karl Ferdinand of Austria, acts as Regent until he becomes of age.

The Cabinet of ministers constituted on May 18, 1898, was composed as follows: President of the Council, Praxedes M. Sagasta; Minister of Foreign Affairs, J. M. Sanchez y Gutierrez de Castro, Duke de Almodovar del Rio; Minister of Justice and Grace, C. Groizard; Minister of War, Gen. M. Correa; Minister of Marine, Capt. R. Aunon; Minister of Finance, Lopez Puigcerver; Minister of the Interior, F. R. Capdepon; Minister of Public Welfare, Agriculture, and Commerce, M. Gamazo; Minister of Colonies, V. Romero Givon.

Finances.—The revenue for 1897 was 822,411,446 pesetas and the expenditure 808,955,658 pesetas. For 1898 the revised estimates make the revenue 865,816,890 pesetas and the expenditure 868,479,417 pesetas. The budget estimate of revenue for 1899 was 865,816,890 pesetas, and of expenditure 868,479,417 pesetas. The law of May 17, 1898, provided for an extraordinary expenditure of 209,423,917 pesetas to be spread over six years and defrayed by means of an advance of 31,070,232 pesetas from the tobacco company, a loan of 90,000,000 pesetas on the guarantee of the Almaden mines, and a tax on traffic producing 88,353,685 pesetas. The revised budget estimate for 1899 makes the total revenue 805,816,890 pesetas, of which 297,360,810 pesetas come from direct taxes, 305,273,000 pesetas from customs and indirect taxes, 132,696,024 pesetas from stamps and *regie*, 24,787,056 pesetas from national property, and 105,700,000 pesetas from the public funds. The expenditures were estimated at 868,479,417 pesetas, of which 9,250,000 pesetas are for the civil list, 1,638,085 pesetas for the legislative bodies, 399,236,677 pesetas for the public debt, 1,614,651 pesetas for the judiciary, 61,749,730 pesetas for indemnities and pensions, 980,883 pesetas for the presidency of the Council of Ministers, 4,935,919 pesetas for the Ministry of Foreign Affairs, 54,748,649 pesetas for the Ministry of Justice, 145,929,521 pesetas for the Ministry of War, 25,190,539 pesetas for the Ministry of Marine, 28,381,198 pesetas for the Ministry of the Interior, 80,728,570 pesetas for the Ministry of Public Works and Public Instruction, 18,659,467 pesetas for the Ministry of Finance, 34,560,528 pesetas for contributions, and 875,000 pesetas for Fernando Po. The extraordinary budget for six years has reached the sum of 236,344,883 pesetas, of which 44,920,966 pesetas are for repayments, 58,000,000 pesetas for the army, 71,175,678 pesetas for the navy, and 63,248,239 pesetas for railroads. The total amount of the debt in 1897 was £283,046,000 sterling, of which sum £183,967,000 represent the consolidated debt, £66,225,000 the extinguishable debt, £14,574,000 debts of the public treasury, and £18,280,000 floating debt.

The payments made on account of Cuba from the commencement of the insurrection in 1895 to the final evacuation of the island were 1,796,269,000 pesetas. During the same period 7,098,000 pesetas were spent on Puerto Rico and 165,988,000 pesetas for the Philippines, making a total of 1,969,355,000 pesetas. The debt incurred by the Ministry of the Colonies amounted on June 1, 1899, to 1,445,280,000 pesetas. The annual amount required for the interest and redemption of these colonial debts is 211,013,000 pesetas, which became a charge on the general revenue of Spain when the colonies were lost, together with 48,044,000 pesetas formerly paid by the colonies. Pensions of military and naval officers and the

indemnity to the steamship company for services during the war represented a sum of 259,067,000 pesetas. The floating debt was reduced, by deducting 119,000,000 pesetas received from the United States, to 252,000,000 pesetas, which the deficit in the budget increased to more than 300,000,000 pesetas. The revenue for 1900 was estimated at 937,930,415 pesetas, and expenditure at 937,178,134 pesetas. These results were obtained by reductions in expenditure, by measures for the conversion and resettlement of debts, and by new sources of revenue that Señor Villaverde, who became Minister of Finance in March, proposed in the financial programme presented in June, 1899. The redemption of Peninsular redeemable and customs bonds and of Cuban and Philippine mortgage bonds was suppressed and interest on Cuban bonds was reduced by the imposition of a tax of 20 per cent., on the Philippine bonds by one of 15 per cent., on the bonds of the Ministry of the Colonies from 5 to 3 per cent. The Cuban and Philippine debts were further subject to a duty of 20 per cent. The treasury bonds, the floating debt, the customs bonds, the current requirements of the treasury, the bonds of the colonies, and those of companies and banking establishments for which the Government was liable, and a part of the debt due to the Bank of Spain it was proposed to consolidate in a new 5-per-cent. loan. The proposed new sources of revenue were an income tax on both capital and labor, including revenues from Government, provincial, and municipal bonds and bank shares; a surtax of 20 per cent. on town property and industrial and commercial concerns, agricultural property remaining exempt; a reform in *octroi* duties; an export tax on iron and copper ores; a tax on chicory; an increase in the price of tobacco; increases in stamps, succession duties, the tax on titles of nobility, railroad taxes on freight and passengers, and a salt tax; and special taxes on the manufacture of sugar and alcohol. An issue of 300,000,000 pesetas of 5-per-cent. bonds was guaranteed by the tobacco revenue. No reduction was made in the interest on the external 4-per-cent. bonds pending negotiations with the council of foreign bondholders in London, a pledge having been given in 1882 that these bonds would be exempt from taxation. The wide-reaching programme of financial reform encountered so much opposition in the country and was so distasteful even to many supporters of the Government that it was abandoned or postponed, with the exception of the provisions for the reorganization of the debt.

The Army.—The peace effectives on July 18, 1899, comprised 45,770 infantry, 12,447 cavalry, 12,834 artillery, 4,115 engineers, 1,460 administrative troops, 881 medical troops, 403 royal guards, 554 in the military academy, and 1,534 on special service; total, 80,000 men, not including 18,140 gendarmes. The army is composed of 64 infantry regiments of 2 battalions, each battalion consisting of 23 officers and 326 men, to be raised in time of war to 27 officers and 1,000 men; 15 battalions of rifles, each consisting of 23 officers and 716 men on the peace footing; 28 regiments of cavalry, the squadron consisting of 5 officers and 100 men in peace and 150 in war; 16 regiments of field and mountain artillery, each consisting of 4 mounted batteries of 6 pieces with 4 officers and from 71 to 98 men; 10 battalions, or 60 companies, of fortress artillery, the company numbering 4 officers and 88 men; 1 regiment of siege artillery, 4 companies of artillery artificers, 4 regiments of sappers, 1 regiment of pontonniers, 1 battalion of railroad troops, 1 bat-

talion of telegraph troops, 1 brigade for topographic service, 1 company of engineer artificers, 8 depots of reserve artillery, 8 depots of engineer reserves, 16 companies of administrative troops, and 6 sanitary companies. There are 55 regiments of infantry reserves and 14 of cavalry reserves. The effective of the active army was fixed for 1900 at 80,000 men.

The Navy.—The armored cruisers *Maria Teresa*, *Oquendo*, and *Vizcaya*, of 7,000 tons, and the *Cristobal Colon*, of 6,840 tons, with the destroyers *Furor* and *Pluton*, were lost at the battle of Santiago on July 3, 1898. The *Reina Cristina*, *Castillo*, *Antonio de Ulloa*, *Juan de Austria*, *Isla de Cuba*, *Isla de Luzon*, *Velasco*, and *Mindanao* were destroyed in the battle of Cavité on May 1, 1898. The gunboats *Delgado Parayo* and *Centenella* were burned at *Manzanillo* on July 20 and the *Jorge Juan* sunk at *Nipe* on July 21, 1898. Other gunboats were captured by the Americans in Cuba and the Philippines. The effective vessels left in the Spanish navy are 1 battle ship, 2 coast-defense armor clads, 4 armored cruisers, 5 second-class and 4 third-class cruisers, 60 gunboats of various sizes, and 20 first-class, 3 second-class, and 4 third-class torpedo boats. Three small cruisers, a gunboat, and 4 first-class torpedo boats were not yet completed when the war ended. The battle ship *Pelayo*, of 9,900 tons, built in France in 1887 and reconstructed in 1898, has a belt of steel armor 18 inches in the thickest part, carries 2 12.5-inch and 2 11-inch guns in barbette turrets, with 15 quick-firing guns, and has engines of 6,800 horse power, capable of making 15.8 knots. The *Emperador Carlos V* is an armored cruiser built at *Cádiz* in 1892, of 9,235 tons displacement, carrying a powerful secondary armament, and having engines of 15,000 horse power, capable of steaming 20 knots. The *Cataluña*, *Cardenal Cisneros*, and *Princesa de Asturias*, of 7,000 tons, are of the type of the belted cruisers that were sunk by the Americans, having 12 inches of steel armor and engines of 13,000 horse power, giving a nominal speed of 20 knots. The coast-defense vessels are the antiquated ironclads *Numancia* and *Vitoria*. The new protected cruisers *Alfonso XIII* and *Lepanto*, of 4,800 tons, have engines of 12,000 horse power, capable of a speed of 20 knots.

Commerce and Production.—Of the total area of Spain about 80 per cent. is productive, and of this 33.8 per cent. is given up to agricultural crops, 3.7 per cent. to vineyards, 1.6 per cent. to olive groves, 20.8 per cent. to fruits, and 19.7 per cent. to grazing and meadow. Wine is the most important product. Oranges, olives, raisins, grapes, and nuts are exported largely. The agricultural crops are wheat, rye, barley, corn, esparto, flax, hemp, and leguminous plants. In 1895 there were 383,113 horses, 1,496,703 asses and mules, 2,071,326 cattle, 16,469,303 sheep, 2,820,827 goats, and 1,910,368 hogs. The land has passed into the hands of a great number of proprietors. On the tax lists there are 3,426,000 separate properties, five times as many as at the beginning of the century. The mineral resources of Spain are valuable. The value of mineral produce in 1896 was 108,221,668 pesetas, and of metals extracted 141,476,545 pesetas. The quantity of coal produced was 1,830,771 tons; of iron ore, 6,808,000 tons; of pig lead, 170,790 tons; of copper ore, 2,825,000 tons; of zinc, 45,000 tons; of iron pyrites, 200,000 tons; of manganese, 100,000 tons; of salt, 350,000 tons; of silver, 222,900 kilogrammes; of mercury, 1,513,999 kilogrammes. The produce of the fisheries is worth about 38,000,000 pesetas a year, most of this coming from

the tunny, cod, and sardine catches. The sardines canned every year amount to 15,000,000 pesetas.

The bulk of the manufactures of Spain were formerly exported to the colonies. In 1892 the manufacturers of Catalonia obtained a practical monopoly of the colonial markets by securing a large increase in the customs tariff on manufactured goods. This gave a great impetus to the industries, and brought wealth to the capitalists of the industrial province and led to many new factories being started. Foreigners who had a business established in the colonies could only retain it by selling Spanish goods or building factories of their own in Spain. The exports to Cuba, Porto Rico, and the Philippines increased from 172,500,000 pesetas in 1894 to 210,500,000 pesetas in 1896, two thirds of the total consisting of manufactured goods. The export trade with the colonies was nearly a quarter of the total export trade of Spain. About 23,000,000 pesetas was paid annually to Spanish steamship companies for freight and passage money to the colonies. Two fifths of the Spanish exports to Cuba consisted of provisions. A considerable part of this trade is retained in spite of the loss of the island and the cessation of discriminating duties. Spanish goods are admitted by treaty on the same terms as American.

The total value of the imports in 1898 was 595,925,751 pesetas, compared with 784,196,987 pesetas in 1897; of exports, 859,747,055 pesetas, compared with 979,545,623 pesetas in the preceding year. Imports of stone, minerals, glassware, and pottery were 72,715,632 pesetas in 1897 and 58,120,006 pesetas in 1898; exports, 126,508,381 pesetas in 1897 and 127,217,080 pesetas in 1898; imports of metals and metal manufactures, 24,651,656 pesetas in 1897 and 6,850,248 pesetas in 1898; exports, 100,230,107 pesetas in 1897 and 101,303,110 pesetas in 1898; imports of drugs and chemicals, 60,183,616 pesetas in 1897 and 53,239,528 pesetas in 1898; exports, 23,861,030 pesetas in 1897 and 22,291,954 pesetas in 1898; imports of cotton and cotton manufactures, 93,300,414 pesetas in 1897 and 80,831,060 pesetas in 1898; exports, 61,877,408 pesetas in 1897 and 37,948,534 pesetas in 1898; imports of other vegetable fibers and manufactures thereof, 22,822,432 pesetas in 1897 and 21,848,147 pesetas in 1898; exports, 4,098,348 pesetas in 1897 and 2,564,513 pesetas in 1898; imports of wool and hair and manufactures thereof, 20,142,415 pesetas in 1897 and 15,124,126 pesetas in 1898; exports, 17,662,758 pesetas in 1897 and 19,903,614 pesetas in 1898; imports of silk and silk manufactures, 19,055,231 pesetas in 1897 and 14,469,342 pesetas in 1898; exports, 4,972,237 pesetas in 1897 and 4,847,623 pesetas in 1898; imports of paper and paper manufactures, 9,080,978 pesetas in 1897 and 7,082,525 pesetas in 1898; exports, 11,725,116 pesetas in 1897 and 8,774,969 pesetas in 1898; imports of timber and wood manufactures, 45,342,129 pesetas in 1897 and 34,045,202 pesetas in 1898; exports, 43,554,124 pesetas in 1897 and 46,848,309 pesetas in 1898; imports of machinery, vehicles, and vessels, 49,911,624 pesetas in 1897 and 39,551,263 pesetas in 1898; exports, 521,517 pesetas in 1897 and 1,750,226 pesetas in 1898; imports of grain, sugar, wine, and other alimentary substances, 148,235,985 pesetas in 1897 and 98,798,401 pesetas in 1898; exports, 334,036,792 pesetas in 1897 and 399,601,954 pesetas in 1898; imports of miscellaneous products, 5,822,002 pesetas in 1897 and 3,823,346 pesetas in 1898; exports, 15,400,305 pesetas in 1897 and 1,930,135 pesetas in 1898; various special imports, 21,532,866 pesetas in 1897 and 25,792,057 pesetas in 1898; imports of gold and silver

coin and bullion, 123,796,122 pesetas in 1897 and 70,223,934 pesetas in 1898; exports, 170,628,820 pesetas in 1897 and 21,403,150 pesetas in 1898. The wine exports in 1897 amounted to 143,471,188 pesetas, of which 681,600 pesetas represent heavy wines, 11,257,440 pesetas vintage sherries, and 101,393,600 pesetas common wine. The value in pesetas of the commerce with different countries in 1897 is given in the following table:

COUNTRIES.	Imports.	Exports.
Spanish colonies.....	170,881,439	872,827,080
Great Britain.....	155,076,488	263,643,588
France.....	146,856,965	264,459,511
United States.....	99,408,141	12,265,411
Germany.....	52,582,999	21,474,816
Portugal.....	37,614,127	34,575,353
Russia.....	49,350,795	1,140,921
Belgium.....	27,544,655	19,307,109
Italy.....	22,964,842	10,161,536
Sweden and Norway.....	34,025,088	2,211,557
Turkey.....	6,614,168	825

Navigation.—The total number of vessels entered at Spanish ports during 1898 was 17,355, of 13,278,151 tons, 9,706 of these, of 7,265,436 tons, with cargoes and 7,649, of 6,012,715 tons, in ballast; cleared, 16,957 vessels, of 13,995,920 tons, of which 15,298, of 13,013,250 tons, were with cargoes and 1,659, of 982,670 tons, in ballast. Of the total number entered 8,490, of 5,495,903 tons, and of those cleared 7,792, of 5,322,412 tons, were Spanish vessels. The merchant marine consisted in 1898 of 1,145 sailing vessels, of 164,504 tons burden, and 436 steamers, of 341,951 tons.

Colonies.—The loss of Cuba and Porto Rico and of the Philippine Islands and Guam, as the consequence of the war with the United States in 1898, left Spain with no colonial possessions in America, and with only the Caroline Islands and Palaos and the minor islands of the Marianne or Ladrones group in the Pacific. The Carolines, with Palaos, have an area of about 560 square miles, with a population not exceeding 36,000. The Ladrones without Guam have an area of perhaps 50 square miles and 1,000 inhabitants.

In Africa Spain possesses a sphere of influence on the Atlantic coast of the Sahara 243,000 square miles in extent, embracing the Rio de Oro territory and Adrar, with only about 100,000 inhabitants. The territory on the banks of the Muni and Campo rivers, having an extent of 69,000 square miles, with 500,000 inhabitants, is claimed both by Spain and by France. The settlement at Rio de Oro is administered by a local official under the orders of the Governor of the Canary Islands, which are politically joined to Spain. Ifni, near Cape Nun, is a Spanish settlement with an area of 27 square miles and 6,000 inhabitants. Other African possessions are Fernando Po, Annabon, Corisco, Elobey, and San Juan, having a combined area of 850 square miles and 30,000 inhabitants.

Politics and Legislation.—The Cortes met on Feb. 20, 1899, having adjourned in the previous September after authorizing the Government to conclude peace with the United States in accordance with the Washington protocol of Aug. 12, 1898. The consent then given by the Cortes to the renunciation of sovereignty and the cession of territories in the colonies did not cover, in the view of the Opposition at least, the surrender of sovereign rights in the Philippines and the Sulu Archipelago. Therefore Premier Sagasta prepared a bill sanctioning the cession of these islands, and it was passed before the Queen Regent ratified the treaty of peace. The Republicans and some malcontents in the army and

navy found fault with the Government for having made peace on such hard conditions, and the Carlists tried to make the surrender of the colonies the occasion of a new insurrection. The Basques and Catalans, however, unwilling to sacrifice their prosperity by engaging in another civil war, would give Don Carlos only a theoretical support, nor could he obtain financial assistance except from a few fanatical reactionaries in France and England. He had missed the favorable opportunity when the whole nation felt hurt and irritated in consequence of the peace. Just before the reassembling of the Cortes he issued a circular forbidding the Carlist Senators and Deputies to take their seats in the Parliament that was about to sanction the treaty of peace. At the opening of the session attacks were made upon the military and naval commanders who had capitulated to the United States forces. The Government had decided to prosecute Gen. Jaudez, who signed the capitulation of Manila, Gen. Toral, who made the surrender of Santiago, Admiral Cervera, and Admiral Montojo. The Ministry of the Colonies was abolished by royal decree. On Feb. 9 the constitutional guarantees, which had been suspended for seven months, were restored in all the provinces of Spain, the state of siege was raised, and the censorship of the press abolished. All persons who had been condemned for press offenses received pardons. In the election of a commission to report on the bill for the cession of the Philippines the Government suffered a moral defeat in the Senate, the vote being 99 to 90 for the ministry, with 17 Conservatives abstaining. When Gamazo withdrew from the Cabinet and seceded from the ministerial party in October, 1898, taking 30 Senators and 63 Deputies with him, the Sagasta Government no longer commanded a majority, but no hostile combination was willing to relieve it of the responsibility of carrying through the treaty bill and the financial and other measures rendered necessary by the defeat of the Spanish forces. The Conservatives, the dissident Liberals, and the Republicans all recognized the imperative necessity of accepting the peace treaty. The Republicans offered a formal opposition in order to disclaim any share in the responsibility for the loss of the colonies, since they had been out of power for a quarter of a century and had always advocated colonial self-government.

On March 1, in consequence of a virtual defeat in the Senate, Señor Sagasta offered the resignation of the Cabinet, declining to carry on the Government longer unless there was a dissolution of the Cortes. The Queen Regent then commissioned Señor Silvela to form a Conservative Cabinet. The Cabinet was definitely formed on March 4 as follows: President of the Council and Minister of Foreign Affairs, Francisco Silvela; Minister of the Interior, Señor Dato; Minister of Mercy and Justice, Señor Duran y Bas; Minister of Finance, Señor Villaverde; Minister of Public Works and Instruction, Marquis De Pidal; Minister of War, Gen. Polavieja; Minister of Marine, Gomez Imaz. The Queen signed the ratification of the treaty of peace on March 17, although it had not been formally sanctioned by Parliament, and on the same day the Cortes were dissolved and a decree issued convoking the new Parliament in June. The reform of Spanish finances was the main task of the new Government. The cost of the recent prolonged campaigns in Cuba and the Philippines and of the war with the United States, including the expense of the repatriation of troops and arrears of pay due to the colonial army, navy, and civil services, had

added about 3,000,000,000 pesetas to the obligations of the Government, half of which sum was owed to the Bank of Spain for advances. The interest on the national debt was consequently increased by about 150,000,000 pesetas. In 1898 it amounted to over 588,000,000 pesetas. The coupons of the Cuban debt were paid on April 1.

Disturbances occurred in various places when the elections were held on April 16. The supporters of Silveira were elected in 180, supporters of Gen. Polavieja in 33, Ultramontanes in 30, supporters of the Duke of Tetuan in 18, Liberals in 86, supporters of Gamazo in 30, Republicans in 15, supporters of Romero Robledo in 5, Carlists in 4 constituencies. Señor Castelar, who was elected in Murcia, resigned because his majority was small. In the senatorial elections the ministerialists obtained 110 seats, Liberals 50, Gamazists 7, Tetuanists 6, Carlists 3, Ultramontanes 1, Republicans 1, and 1 went to an independent, giving the ministerialists a majority of about 40. Before the assembly of Parliament the Government concluded an arrangement for the sale to Germany of the Caroline Islands, the Pelew Islands, and the Ladrones, with the exception of Guam, already ceded to the United States. The Cortes met on June 2. The Government programme, in addition to the refunding of debts, the creation of new funded obligations, the new taxes to be equally distributed among all classes, and the contemplated economies, included measures for the reorganization of the army and navy on the basis of compulsory service, for completing the coast and frontier defenses, for regulating the position of officials and their right to pensions, for decentralizing provincial and municipal administrations in such manner as to place them in certain necessary cases under the supervision of the state, for changing the jury system in criminal cases, for amending the municipal and commercial code, for altering the electoral law in regard to disqualifications, and for the construction of branch railroads. When the Minister of Finance brought in his budget demonstrations against the new taxes necessitated the intervention of the troops in several provinces. In Saragossa and Valencia martial law was proclaimed. In Granada and Murcia riots occurred. In most of the cities the stores were closed in accordance with a decision of the chambers of commerce. The rioters attacked convents in some places. In Barcelona and other towns there were demonstrations in favor of a revision of the trial of the anarchists confined in Montjuich prison. The Republicans in the Chamber proposed the expulsion of the Jesuits from Spain. In consequence of serious rioting in Barcelona a state of siege was declared there also. The Carlists were plotting in a desultory way, and in several places concealed arms were found by the police. The animosity of the Radical element against the priests and friars was excited by their open efforts, especially those of the Jesuits, to take advantage of the troubles of the country in order to regain their old political control. In a Church congress at Burgos violent antidynastic speeches were made by many priests, and the disasters of Spain were attributed to the Liberal Constitution. A letter from the Pope counseling legality and discountenancing Carlism was hissed, and finally the papal nuncio, who presided, broke up the congress by refusing to put the resolutions and leaving the hall.

After approving a bill for the reorganization of the internal debts, including a provision authorizing the Bank of Spain to put in circulation 2,000,000,000 pesetas of paper money on condition that it loan money to the Government at

2½ per cent., the Cortes adjourned at the end of July till October. The refusal of the Ministers of War and Marine to reduce the numerical strength or the expenses of the army and navy, their ground being that it would produce discontent and drive the dismissed officers to give their services to the Carlists or Republicans, destroyed any chance that there was of the new tax proposals being accepted. The principles of regionalism made progress in the country, especially in Catalonia, which was smarting under a sense of injury engendered by the loss of trade in the former Spanish colonies, and this caused the Government to study the question of conceding a greater degree of provincial autonomy. The court-martial that tried the officers concerned in the capitulation of Santiago exonerated them, but censured those who were responsible for the lack of munitions and supplies.

The opponents of Señor Villaverde's budget had no alternative proposal for the financial regeneration of the country. The only thing that they were united on was a demand for retrenchment in the pay rolls of the civil service, and especially in the army and navy. Before the Chamber reassembled on Oct. 30 the Prime Minister and the Minister of Finance endeavored to induce the Minister of War to agree to a large reduction in his budget. Gen. Polavieja originally proposed to fix the strength of the army for 1900 at 108,000 men, but consented to reduce it to 80,000 men. His first requisition for recruits was for 41,000; later, when the effective was cut down, he asked for 60,000, in order to pass them through the ranks rapidly and give more men a military training. He also demanded large sums for frontier fortifications and for defensive works in the Balearic and Canary Islands. The officers returned from Cuba and the Philippines increased the proportion of officers in the army, of whom there were 23,000, drawing 66,000,000 pesetas as pay; but he would not consent to a reduction of the number, nor to the admission of a smaller number of cadets. He was not supported in his position by his colleagues, and therefore resigned on Oct. 1, and was succeeded by Gen. Azcarraga. Barcelona merchants and industrialists who refused to pay taxes unless the Government modified its financial proposals were brought to terms by their goods being detained in the customhouse until they settled their accounts with the tax office. The tax that they refused to pay was the war tax on industry. They put forward a demand for fiscal autonomy, such as is enjoyed by the Basque provinces in virtue of their ancient rights. This the ministry would not consent to. On Oct. 23 Señor Duran y Bas resigned his portfolio as Minister of Justice because he differed with his colleagues on the question of decentralization. He was succeeded by Count Torrealanaz.

SWEDEN AND NORWAY, two kingdoms in northern Europe united in the person of the sovereign. The throne in both descends to the heirs of the house of Bernadotte. Affairs common to both kingdoms are referred to a mixed Council of State. The reigning King is Oscar II, born Jan. 21, 1829. The heir apparent is Prince Gustavus, Duke of Wermland, born June 16, 1858.

Sweden.—The legislative power is vested in the Riksdag, consisting of the First Chamber, of 150 members, elected for nine years by the provincial and municipal bodies, and the Second Chamber, of 230 members, elected for three years, 80 in the towns by direct suffrage and 150 in the rural districts, part directly and part indirectly by natives of Sweden who own or farm land of

a certain value or pay taxes on 800 kronor of income. The Council of State at the beginning of 1899 was composed as follows: Minister of State, Erik Gustaf Boström; Minister of Foreign Affairs, Count Ludvig Vilhelm August Douglas; Minister of Justice, Per Samuel Ludvig Annerstedt; Minister of War, Baron Axel Emil Rappe; Minister of Marine, Jarl Casimir Eugène Christerson; Minister of the Interior, Julius Edvard von Krusenstjerna; Minister of Finance, Count Hans Hansson Wachtmeister; Minister of Education and Ecclesiastical Affairs, Nils Ludvig Alfred Claesson; Councilors of State, Baron Albert Lars Evert Akerhielm and Sven Herman Wikblad.

Finances.—The total revenue for 1900 was estimated in the budget at 137,307,000 kronor, of which 93,450,000 kronor are the receipts classed as extraordinary, 22,541,000 kronor the ordinary receipts, and 21,316,000 kronor the balance from preceding budgets. Of the ordinary receipts 983,000 kronor are derived from the land tax, 1,500,000 kronor from tonnage dues, 2,200,000 kronor from rent of public lands, 700,000 kronor from the personal tax, 10,000,000 kronor net from railroads, 1,510,000 kronor from telegraphs, 4,600,000 kronor from forests, and 1,048,000 kronor from various sources. Of the extraordinary receipts 45,200,000 kronor are derived from customs, 10,800,000 kronor from the post office, 4,700,000 kronor from stamps, 17,500,000 kronor from the duty on spirits, 9,000,000 kronor from the beet-sugar duty, 6,000,000 kronor from the income tax, and 750,000 kronor from various sources. The total expenditures are made to balance the revenue. The ordinary expenditures are set down as 84,941,530 kronor, of which 1,320,000 kronor are for the royal household, 3,842,450 kronor for justice, 629,250 kronor for foreign affairs, 27,461,078 kronor for the army, 7,484,840 kronor for the navy, 5,831,900 kronor for the interior, 14,194,672 kronor for worship and public instruction, 3,429,450 kronor for pensions, and 20,747,890 kronor for finance, including 2,804,200 kronor for customs, 10,305,000 kronor for the post office, 450,000 kronor for excise, 1,510,000 kronor for telegraphs, 1,602,000 kronor for forests, and 4,076,090 kronor for other expenses. The extraordinary expenditures are 39,299,170 kronor, of which 19,525,132 kronor are for the army and navy, and 19,774,038 kronor for various expenditures, including 11,416,300 kronor for the debt, etc., 1,400,000 kronor for insurance of workmen against sickness and old age, and 250,000 kronor for accident insurance. The internal loan of 1887 amounted on Jan. 1, 1900, to 48,779,000 kronor and various foreign loans to 234,944,011 kronor; total public debt, 283,723,011 kronor, paying 3 and 3½ per cent. interest.

Commerce and Production.—Agriculture, forestry, and mining are of almost equal importance. Of the total area of Sweden about 8.4 per cent. is under crops, 3.6 per cent. meadow and pasture, and 47.5 per cent. forest. The crop of rye in 1897 was 8,316,400 hectolitres; of barley, 5,040,500 hectolitres; of oats, 20,605,900 hectolitres; of wheat, 1,611,200 hectolitres; of mixed grain, 3,356,200 hectolitres; of pulse, 848,300 hectolitres; of potatoes, 19,772,500 hectolitres. The total value of the cereal crops was 265,200,000 kronor. There were 512,406 horses, 2,554,577 cattle, 1,298,732 sheep, and 788,736 hogs in 1897. In 1896 the number of cattle exported was 25,146, and of sheep 12,793. The output of iron ore in 1896 was 2,038,094 tons; the production of pig iron was 487,147 tons and of bar iron 321,615 tons. The export of iron ore was 1,150,695 tons; of pig iron, 71,343 tons; of bar iron, 180,372 tons.

Of other ores 15,381 tons of silver lead, 27,351 tons of copper, 44,041 tons of zinc, and 2,056 tons of manganese ore were raised. The production of coal was 225,878 tons. The quantity of gold produced was 114, of silver 2,082, of lead 1,518, of copper 248,586 kilogrammes.

The total value of imports in 1897 was 408,332,000 kronor, and of exports 358,195,000 kronor. The imports of coal were 38,120,000 kronor in value; coffee, 26,838,000 kronor; machinery, 19,876,000 kronor; rye and wheat, 19,273,000 kronor; woolen goods, 17,639,000 kronor; hides and skins, 14,218,000 kronor; iron manufactures, 14,019,000 kronor; cotton, 11,201,000 kronor; woolen yarn, 10,405,000 kronor; fish, 10,355,000 kronor; cotton goods, 8,475,000 kronor; petroleum, 8,451,000 kronor; vegetable oils, 7,214,000 kronor; tobacco, 6,691,000 kronor; wood manufactures, 6,488,000 kronor; wool, 5,311,000 kronor; iron, 5,260,000 kronor; paper, 4,755,000 kronor; silks, 4,182,000 kronor; wine, 3,320,000 kronor; clothing, 3,276,000 kronor. The exports of timber were valued at 150,303,000 kronor; iron, 43,843,000 kronor; butter, 41,592,000 kronor; wood pulp, 16,730,000 kronor; iron manufactures, 8,381,000 kronor; machinery, 7,989,000 kronor; paper, 7,157,000 kronor; matches, 6,598,000 kronor; fish, 4,905,000 kronor; cotton goods, 4,603,000 kronor; animals, 4,367,000 kronor; glass, 4,197,000 kronor.

The commerce in 1897 was distributed among foreign countries as shown in the following table, giving values in kronor:

COUNTRIES.	Imports.	Exports.
Great Britain.....	121,813,000	149,968,000
Germany.....	186,102,000	45,853,000
Denmark.....	46,492,000	43,184,000
Norway.....	32,860,000	80,638,000
Russia and Finland.....	27,153,000	15,047,000
France.....	7,625,000	91,802,000
Netherlands.....	8,531,000	94,436,000
Belgium.....	18,013,000	12,128,000
Africa.....	.....	8,980,000
United States.....	7,421,000	181,000
Spain.....	1,123,000	2,586,000
Portugal.....	1,619,000	753,000
Italy.....	1,273,000	466,000
Australia.....	.....	1,086,000
West Indies.....	804,000	.....
All other countries.....	1,810,000	696,000
Total.....	408,332,000	358,195,000

Navigation.—The number of vessels that were entered at Swedish ports in 1897 was 32,785, of 7,429,000 tons, of which 16,575, of 2,652,000 tons, were Swedish; 2,249, of 863,000 tons, were Norwegian; and 13,961, of 3,914,000 tons, were foreign. The total number cleared was 32,837, of 7,449,000 tons, of which 16,423, of 2,648,000 tons, were Swedish; 2,444, of 876,000 tons, were Norwegian; and 13,970, of 3,925,000 tons, were foreign. Of the total number entered 13,296, of 3,007,000 tons, were with cargoes; of the number cleared 21,179, of 5,372,000 tons, were with cargoes. The number of steamers among the vessels entered was 15,196, of 6,057,000 tons, of which 5,044, of 2,444,000 tons, were with cargoes; the number of steamers cleared was 15,292, of 6,092,000 tons, of which 8,080, of 4,136,000 tons, were with cargoes. The merchant navy on Jan. 1, 1898, consisted of 2,002 sailing vessels, of 289,490 tons, and 786 steamers, of 230,636 tons.

Railroads, Posts, and Telegraphs.—The railroads on Jan. 1, 1899, had a total length of 6,432 miles, of which 2,282 miles belonged to the state and 4,150 miles to companies.

The post office during 1897 carried 61,825,000 internal, 13,883,000 international, and 230,000 transit letters, 7,745,000 internal, 1,116,000 inter-

national, and 21,000 transit postal cards, 101,913,000 internal, 7,932,000 international, and 62,000 transit newspapers and circulars, and 3,500,000 internal money letters and postal orders of the value of 779,877,000 francs, 361,000 in the international service of the value of 67,723,000 francs, and 2,000 in transit of the value of 931,000 francs. The post office receipts in 1897 were 14,620,431 francs; expenses, 12,901,663 francs.

The state telegraphs in 1897 had a length of 5,450 miles, with 15,635 miles of wire; the railroad lines had a length of 3,144 miles, with 10,390 miles of wire. The number of paid internal messages was 1,201,337; international messages, 796,702; transit dispatches, 294,238; service dispatches, 141,993; total, 2,434,270. The receipts were 2,255,844 francs; expenses, 1,902,944 francs.

The Army and Navy.—The Swedish army in 1899 was composed of 48 general and staff officers, with 233 employees; 56 battalions of infantry, numbering 27,633 men, including 1,220 officers; 50 squadrons of cavalry, numbering 5,269 men, including 232 officers; 3,509 field artillery, inclusive of 257 officers; 497 fortress artillery, inclusive of 30 officers; 172 artillery in Gotland, inclusive of 16 officers; 9 companies of engineers, numbering 77 officers and 914 men; and 8 companies of train, numbering 66 officers and 706 men; total strength, 39,124 men, including 1,946 officers, with 6,891 horses. In the reserves were 683 officers and 450 noncommissioned officers. The *beväring*, or militia, numbered about 250,000 men, the Landstorm 200,000 more.

The fleet consisted of 6 armored turret cruisers built since 1886, named the Svea, Göta, Thule, Oden, Thor, and Niord, averaging over 3,000 tons; 4 armored monitors, named the John Ericsson, Loke, Thordön, and Tirling; 9 ironclad gunboats; 3 torpedo cruisers, built since 1896; 3 old corvettes; 1 dispatch vessel; 9 first-class and 5 second-class gunboats; 1 destroyer; and 10 first-class, 9 second-class, and 5 third-class torpedo boats. The principal vessels are all modern, built entirely in Swedish shipyards. The older ones are available for coast defense, especially the 14 monitors. The aggregate tonnage of 40 effective vessels is 42,816 tons, not counting 17 small gunboats nor the torpedo boats; aggregate motive power, 56,410 horse power; armament, 289 guns. The 6 armored cruisers carry 118 modern guns. Several more vessels of this class are building.

Political Affairs.—The type of constitutional government actually existing in Sweden is the same as exists in Denmark. The ministers possess the confidence of the King and of the upper house of the Riksdag, but do not command a majority in the lower house. Yet this condition does not arouse such popular fermentation as in Denmark and formerly in Norway. The Farmers' party, which formerly constituted the great majority of the popular branch, is no longer united on any question of immediate importance. It has been able to impress its will upon the Conservative ministry by enforcing economy in administration and the promotion of agricultural interests. The protectionist issue was settled in accordance with its desires, and since then the Riksdag is divided up into six or more groups on minor questions. The agricultural element cherishes no greater antagonism toward the aristocracy, who compose the Conservative party, than toward the Radicals of the cities, and generally approves the unbending attitude of the Government in the quarrel with Norway and the development of the military power of the country under the law of compulsory service, the victory of the protectionists having prepared the ground

for the growth of national pride. The danger of Russian aggression was formerly advanced as a reason for increasing the army and navy; latterly it is the growth of the Norwegian armaments, the neglect of which has been for half a century the chief burden of the complaints made against the Norwegians by the Swedes, who said that the task of defending the frontiers was shifted upon them alone. The influence of Germany has caused the growth of militarism in Sweden and the creation of a strong military caste allied to and in great part identical with the landholding and titled aristocracy. The army has been almost entirely reorganized under the law of obligatory service adopted in 1892, and the new and growing Swedish navy is regarded with admiration by experts. In April, 1899, the Riksdag voted 10,000,000 kronor for the purchase of new military rifles and as much more for strengthening the fortifications. The ministerial changes made during the year were the appointment of C. H. T. A. von Lagerheim to succeed Count Douglas as Minister of Foreign Affairs, that of J. I. von Krusebjörn as Minister of War, that of Commodore G. Dyrsen as Minister of Marine, and that of D. G. Restadius as Councilor of State in the place of Baron Akerheim.

Norway.—The legislative power is vested in the Storting, containing 114 members, elected indirectly for three years, 38 by the towns and 76 by the rural districts. The Storting elects one fourth of its members to form the Lagthing, which has a veto power over the acts of the Odelsting, composed of the rest of the members. The Council of State in the beginning of 1899 was composed as follows: Minister of State, Johannes Wilhelm Christian Steen; Minister of Worship and Public Instruction, Vilhelm Andreas Wexelsen; Minister of Justice and Police, Ole Anton Qvam; Minister of the Interior, Georg August Thilesen; Minister of Public Works, Jörgen Gunderson Lövlund; Minister of Finance and Customs, Elias Sunde; Minister of National Defense, Col. Peter Theodor Holst; section of the Council sitting in Stockholm, Otto Albert Blehr, Minister of State, and Hans Hein Theodor Nysom and Einar Löchen, Councilors of State.

Finances.—The revenue for 1897 amounted to 69,047,000 kroner, of which 4,634,000 kroner came from direct taxes, 35,792,000 kroner from indirect taxes, 25,150,000 kroner from miscellaneous sources, and 3,471,200 kroner from loans. The total expenditure was 56,730,000 kroner, of which 22,651,000 kroner were for defense, 6,882,000 kroner for debt, 16,553,000 kroner for public works, and 30,644,000 kroner for general expenses and administration. The revenue for 1898 was estimated at 70,863,331 kroner and expenditure at the same figure. For 1899 the budget balances at 86,591,837 kroner. Of the estimated revenue 4,000,000 kroner come from income tax, 31,900,000 kroner from customs, 3,500,000 kroner from the spirit duty, 3,500,000 kroner from the malt duty, 550,000 kroner from the succession tax, 865,000 kroner from stamps, 850,000 kroner from judicial fees, 459,800 kroner from mines, 4,350,000 kroner from the post office, 1,770,000 kroner from telegraphs, 3,055,794 kroner from Government property, 10,139,400 kroner from railroads, 6,463,789 kroner from miscellaneous sources, and 15,188,054 kroner from loans raised for defense and railroad building. Of the estimated expenditures 482,838 kroner are for the civil list, 646,550 kroner for the Storting, 1,319,872 kroner for the ministries, 8,582,878 kroner for worship and education, 6,390,790 kroner for justice, 3,190,256 kroner for the interior, 8,697,200 kroner for the postal and tele-

graph services, 14,444,717 kroner for the Government railroads, 4,549,763 kroner for roads, canals, harbors, etc., 3,711,288 kroner for finance and customs, 585,450 kroner for mines, 1,521,960 kroner for amortization of debt, 5,796,378 kroner for interest, 15,824,000 kroner for the army, 3,018,300 kroner for the navy, 773,590 kroner for foreign affairs, and 2,056,007 kroner for miscellaneous expenses.

The national debt on June 30, 1898, amounted to 180,171,300 kroner, most of it paying 3 and $\frac{3}{4}$ per cent. The assets of the Government, including the invested funds, collectable arrears, and the value of the railroads, were 166,363,900 kroner.

Railroads, Posts, and Telegraphs.—The railroads in 1898 had a total length of 1,228 miles. The state telegraph lines had a total length of 7,480 miles, with 17,026 miles of wire; the railroad telegraph lines a length of 1,176 miles, with 2,158 miles of wire. The number of internal dispatches in 1898 was 1,326,979; of international dispatches, 795,715; of service dispatches, 24,778; receipts, 2,003,879 kroner; expenses, 2,170,350 kroner.

The post office forwarded in 1898 in the internal service 33,563,600 letters and postal cards, 2,236,900 money letters, containing 334,500,000 kroner, and 48,743,400 newspapers, etc.; in the foreign service, 11,206,500 letters and postal cards, 84,900 money letters, containing 23,500,000 kroner, and 5,002,700 newspapers, etc. The receipts were 4,497,867 kroner; expenses, 4,183,221 kroner.

Commerce and Production.—Only 25 per cent. of the land surface of Norway is productive, 22 per cent. being forest and 3 per cent. agricultural land. The cereal products of 1897 were valued at 37,792,700 kroner, the rye crop alone at 17,029,600 kroner. Of the forests, covering 26,320 square miles, 73 per cent. is pine. The Government forests are 3,870 square miles in area. The export of timber in 1897 was valued at 42,212,400 kroner; of wood manufactures, 19,461,900 kroner. The mineral products are not worth more than 3,000,000 kroner a year, metals not more than 1,300,000 kroner. Much more important are the fishery products. Their value in 1896 was 21,714,253 kroner, the codfish alone being valued at 14,332,606 kroner and herring at 2,648,514 kroner. This total does not include the catch of whale, seal, walrus, etc., worth 4,000,000 kroner a year.* The value of merchandise imports in 1898 was 280,179,000 kroner; of exports, 159,349,000 kroner. The imports of cereals were valued at 45,600,000 and exports at 700,000 kroner; imports of liquors at 8,000,000 and exports at 500,000 kroner; imports of colonial products at 24,500,000 and exports at 700,000 kroner; imports of fruits and vegetables at 4,700,000 and exports at 100,000 kroner; imports of animals and animal products at 14,500,000 and exports at 51,700,000 kroner; imports of coal at 17,300,000 kroner; imports of metals at 10,500,000 and exports at 1,400,000 kroner; imports of hides and leather at 10,200,000 and exports at 5,900,000 kroner; imports of textile materials at 5,300,000 and exports at 200,000 kroner; imports of timber at 5,700,000 and exports at 40,200,000 kroner; imports of minerals at 6,200,000 and exports at 7,200,000 kroner; imports of metal manufactures at 23,200,000 and exports at 2,200,000 kroner; imports of textile manufactures at 34,900,000 and exports at 500,000 kroner; imports of paper at 2,300,000 and exports at 8,800,000 kroner; imports of leather goods at 1,200,000 and exports at 400,000 kroner; imports of wood manufactures at 3,900,000 and exports at 21,500,000 kroner; imports of drugs

and colors at 1,500,000 and exports at 200,000 kroner; imports of oils at 13,300,000 and exports at 6,100,000 kroner; imports of miscellaneous articles at 47,400,000 and exports at 11,000,000 kroner.

The commerce of 1898 was distributed among foreign countries as follows, values being given in kroner:

COUNTRIES.	Imports.	Exports.
Great Britain	81,049,000	66,284,000
Germany	82,190,000	23,147,000
Sweden	23,618,000	15,348,000
Russia and Finland	22,974,000	4,967,000
Netherlands	12,043,000	9,274,000
Denmark	14,431,000	6,863,000
Belgium	12,581,000	6,698,000
United States	14,196,000	1,349,000
France	5,130,000	6,861,000
Spain	8,424,000	8,456,000
Italy	1,706,000	3,322,000
Portugal	1,490,000	502,000
All other countries	6,397,000	6,173,000
Total	280,179,000	159,349,000

Navigation.—The Norwegian merchant marine on Jan. 1, 1898, comprised 7,147 vessels of all sizes, of 1,552,199 tons, and of these 3,700, of 1,451,753 tons, were engaged in foreign commerce. The total number of sailing vessels was 6,143, of 1,169,079 tons, of which 3,109, of 1,090,100 tons, were in the foreign trade; the total number of steamers 1,004, of 383,120 tons, of which 591, of 361,653 tons, were in the foreign trade. The number of vessels entered at the ports of Norway during 1898 was 13,831, of 3,077,386 tons, of which 6,504, of 1,963,013 tons, were with cargoes and 7,327, of 1,114,373 tons, in ballast; the total number cleared was 13,729, of 3,055,931 tons, of which 12,502, of 2,533,729 tons, were with cargoes and 1,227, of 522,202 tons, in ballast. Of the total number entered 7,198, of 2,055,522 tons, were Norwegian and 6,633, of 1,021,364 tons, foreign; of the total number cleared 7,091, of 2,030,064 tons, were Norwegian and 6,638, of 1,025,867 tons, foreign.

The Army and Navy.—The Norwegian active army is composed of the young men between twenty-four and thirty years of age, who receive a training of from forty-eight to seventy days in the first year and twenty-four days in succeeding years. The Landwehr and Landsturm, in which all Norwegians capable of bearing arms are inscribed till they are fifty years old, are called out only for the defense of the country. The maritime population serve in the navy, and between the ages of twenty-three and thirty-six are liable to be called out for seventy days annually. The strength of the active land army is about 1,700 officers and instructors and 18,000 men. By means of the Landwehr this force can be doubled.

The fleet consists of 2 armor clads built in England in 1897, the Harald Haarfager and Tordenskjold, of 3,500 tons each, 4 ironclad monitors, 3 first-class and 8 second-class gunboats, 1 torpedo dispatch boat, and 6 first-class and 15 second-class torpedo craft. The 2 modern cruisers are capable of making 17 knots and carry 20 guns each, the largest being of 8-inch caliber. The aggregate tonnage of 37 vessels is 16,359 tons; their armament is 142 guns, but the vessels are mostly of antiquated types and few of the guns are modern.

Constitutional Conflict with Sweden.—The Norwegians in their struggle with the Swedish Government gained a moral advantage in 1899 by having the Swedish emblem symbolizing the

union stricken from their commercial flag. King Oscar signed the decree in accordance with the resolution of the Storthing, albeit under protest and against the desires of his Swedish subjects. The Interparliamentary Peace Conference was opened at Christiania on Aug. 2 by the Minister of State, who seized the opportunity to express the Norwegian view that the Scandinavian states are neutral and to proclaim the desire of Norway for international arbitration and its demand for entire liberty and independence. The action of the Swedish ministers in preventing the King from giving effect to the address of the Storthing asking him to try to have agreements made with foreign powers that any dispute arising between Norway and any of them should be settled by arbitration served as a test, in the view of the Norwegians, of the impossible position of Norway in regard to the conduct of foreign affairs. This address was first voted in 1890, and in 1897 a similar address was carried by the unanimous vote of the Storthing, yet no notice was taken of it. The rejection by Sweden on behalf of both countries of the arbitration proposals of the United States Government in 1891 was likewise objectionable to the Norwegian Radicals. The conflict between the two states has arisen since the alteration of the Swedish Constitution in 1885 for the reason that the changes made by the Swedes in their Constitution affected indirectly the relations between the King and Norway by compelling him to follow the advice of Swedish ministers. It is only since then that the Swedish Government has claimed a deciding voice in Norwegian foreign affairs, not only such as concern Sweden also, but such as may be held to concern Norway alone. The appointment of Swedes to represent both countries in the consular as well as in the diplomatic service, and the issuance of all instructions by the Swedish Ministry of Foreign Affairs controlled by the preponderantly Swedish Ministerial Council in Stockholm and responsible to the Swedish Parliament, has resulted in a state of affairs that gives Norwegians cause to complain that their commercial and shipping interests, as well as their political interests, are neglected or made subservient to those of Sweden. Under the act of union the King has the right to decide the preparation and administration of foreign affairs as he thinks best. Formerly he sometimes chose Norwegian ministers to prepare and administer Norwegian foreign affairs, and these were frequently discussed and settled by the Norwegian Cabinet Council without consulting the Swedish Foreign Minister, who was simply directed to carry out the decisions made. There existed a ministerial council for general foreign affairs affecting both kingdoms, and when responsible government was extended in Sweden this consultative body was retained, but its composition and character were changed. It consisted formerly of two Swedish ministers and one Norwegian minister. By the new Swedish Constitution its responsibility to the Riksdag was increased by the addition of a third Swedish member, the Premier; and, instead of the King having the right to prepare foreign affairs as he thought best, it became compulsory in Sweden that they should be prepared and laid before the King in the Council by the Swedish Minister of Foreign Affairs. By the Norwegian Constitution the King still possesses his former powers. The Swedish Government has repeatedly offered to add a second Norwegian minister to the Council, and the Norwegian Government has as often refused this compromise, because it would place Norway in the position of accepting the

unconstitutional status without effectually changing it. The law introducing a purely Norwegian flag was passed by the Storthing in the summer session and communicated to the Swedish-Norwegian Minister of Foreign Affairs in September. The Storthing has in the last two years voted millions of crowns for guns, ships, and fortifications, and has increased the active army to 25,109 men. This growth of armaments and the like active preparations on the part of Sweden appear suspicious in view of the tension between the two governments and the failing condition of the King's health. The Norwegian people have never entertained jealous feelings to any extent toward King Oscar nor toward his brother and predecessor, Charles XV, but the Crown Prince is believed to hold strong convictions adverse to the Norwegian pretensions, and when he visited Christiania in the spring of 1899 in the capacity of Regent he was received in silence by the people who gathered at the railroad station. The party of the Left placed at the head of its programme for the electoral campaign, issued late in 1899, a demand for Norway's independence to be brought about by means of a separate Norwegian Ministry of Foreign Affairs and a separate consular system; also a proposal to labor for a court of arbitration and neutrality. In regard to internal policy, it advocates a system of insurance against incapacity to earn a livelihood, to apply to the whole Norwegian people.

SWITZERLAND, a federal republic in central Europe. The legislative power is vested in the Federal Assembly, made up of two bodies, a National Council of 147 members, elected by direct universal suffrage for three years, and a States Council of 44 members, representing the cantons, in some of which they are elected by the direct vote of the people, in others by the cantonal legislatures. The executive authority is vested in the Federal Council, consisting of 7 Swiss citizens elected for three years by the Federal Assembly, and from among the members of the Federal Council the President of the Confederation and the Vice-President, who by custom is chosen President for the next succeeding term, are elected annually. The Federal Council for the term ending in 1899 was composed as follows: Chief of the Military Department and President of the Confederation for 1899, Eduard Müller, of Bern; Chief of the Department of Finance and Tolls and Vice-President, Walther Hauser, of Zurich; Chief of the Department of Justice and Police, Dr. E. Brenner, of Basel; Chief of the Department of the Interior, A. Lachenal, of Geneva; Chief of the Department of Commerce, Industry, and Agriculture, Dr. A. Deucher, of Thurgau; Chief of the Department of Posts and Railroads, Dr. J. Zemp, of Luzern; Chief of the Department of Foreign Affairs, Eugène Ruffy, of Vaud.

Finances.—The revenue of the Federal Government in 1898 amounted to 95,277,453 francs, of which 577,438 francs were derived from real estate, 2,067,278 francs from invested capital, 56,073 francs from the general administration, 39,285 francs from the Political Department, 476,087 francs from the interior, justice, and police, 2,915,096 francs from the Military Department, 49,027,205 francs from customs and finance, 297,822 francs from the Department of Industry and Agriculture, 31,248,554 francs from posts, 8,285,162 francs from telegraphs and telephones, 283,709 francs from railroads, and 3,745 francs from unexpected resources. The total expenditures were 94,109,943 francs, leaving a surplus of 1,167,510 francs. The expenditures were 4,304,603 francs for interest and amortization of the debt,

1,136,834 francs for the general administration, 648,805 francs for the Political Department, 12,805,151 francs for the Department of the Interior, including 10,323,847 francs for construction, 403,226 francs for justice and police, 26,498,658 francs for the Military Department, 4,952,589 francs for customs and finance, 4,413,549 francs for industry and agriculture, 30,204,417 francs for the post office, 8,285,162 francs for telegraphs and telephones, 381,106 francs for railroads, and 35,843 francs for unforeseen expenses.

The liabilities of the federation, including the currency reserve, were 84,392,065 francs on Jan. 1, 1899; the assets were 199,481,095 francs.

The Army.—All able-bodied citizens of the republic are liable to military service, and those not required to serve are subject to the military tax, of which the federal treasury receives half. Out of 527,074 men liable to military duty in 1897 the number enrolled in the Auszug, or active army, and the Landwehr was 242,529. The recruits for the Auszug in 1898 numbered 18,339. Service in time of peace consists of training in camp, which lasts from forty-two to eighty days in the first year and sixteen days every second year for the rest of the twelve years of service, with rifle practice for the infantry and exercises for the cavalry every year. Service in the Landwehr lasts for twelve years after the period in the Auszug is completed. All able-bodied citizens who are not incorporated in the Auszug or the Landwehr compose the Landsturm. The strength of the Auszug in 1898 was 147,191; of the Landwehr, 83,283; of the Landsturm, 271,780.

Commerce and Production.—The industry of Switzerland is mainly agricultural and pastoral, though the manufactures are important and handicrafts are frequently pursued in combination with husbandry. The cultivators are the proprietors of the soil, and more than half of the forest area is the property of the communes or cantons. Of the total area of the country, 28.4 per cent. is unproductive, 35.8 per cent. pasture and meadow land, 29 per cent. covered with forest, 18.7 per cent. orchard and vineyard, and 16.4 per cent. farm and garden land. The chief crops are rye, oats, and potatoes, of which the production is not half enough, however, to feed the population. The principal rural industries are the manufacture of cheese and condensed milk. In 1897 the export of cheese was 232,000 quintals and of condensed milk 202,000 quintals. The number of cattle in 1896 was 1,306,696. There are over 2,000,000 acres of forests, of which 1,100,000 acres, forming the belt stretching from Lake Lemán to the northern end of the Lake of Constance, are under strict federal supervision. In this area, which by the act of 1876 must never be diminished, new plantings are constantly being made. Fish culture is carried on extensively, in order to stock the streams and lakes. Salt is mined in five districts, and the manufacture of cement is considerable. In about 5,000 industrial establishments subject to the factory laws, which are quite strict, over 200,000 hands are employed. Half the machinery is driven by water power. The textile manufactures are the most important, giving employment in 1895 to 91,454 work people, while 16,334 were employed in the manufacture of watches and jewelry, 14,004 in manufacturing articles of food, 9,936 in metal industries, 8,365 in working leather and rubber, 4,058 in chemical works, and for woodworking and carving there were 7,528 separate workshops reported, employing 11,347 persons. Alcohol is manufactured by a federal *régie*, which sold 42,081 metric quintals of spirits for manufacturing

in 1897. The breweries produced 1,879,567 hectolitres of beer. There are over 14,000 hotels in Switzerland, which receive 90,000,000 francs a year.

The total value of imports in 1898 was 1,154,240,000 francs and of exports 781,423,000 francs, including 88,935,000 francs of specie imported and 57,597,000 francs exported. The value of silk imported was 124,700,000 francs; cereals and flour, 120,700,000 francs; live animals, 51,600,000 francs; coal, 48,600,000 francs; woolen goods, 44,400,000 francs; precious metals, 40,600,000 francs; wine, 37,800,000 francs; iron, 35,600,000 francs; chemical products, 35,100,000 francs; cotton goods, 32,400,000 francs; machinery, 31,700,000 francs; raw cotton, 25,600,000 francs; iron manufactures, 24,000,000 francs; timber, 23,600,000 francs; sugar, 21,300,000 francs; barley, malt, and hops, 17,400,000 francs; leather, 16,900,000 francs; coffee, 15,700,000 francs; wool, 14,000,000 francs; building materials, 12,300,000 francs; silk goods, 12,300,000 francs; books, maps, etc., 12,000,000 francs; linen goods, 10,200,000 francs; eggs, 10,200,000 francs. The export of silk goods was 141,800,000 francs in value; cotton goods, 110,400,000 francs; watches, 109,200,000 francs; cheese, 39,400,000 francs; raw silk, 38,800,000 francs; machinery, 38,000,000 francs; spun silk, 35,100,000 francs; chemical products, 26,600,000 francs; milk, 19,700,000 francs; cotton yarns, 16,600,000 francs; live animals, 12,800,000 francs; straw goods, 11,200,000 francs; hides, 9,900,000 francs; woolen yarns, 9,100,000 francs; precious metals, 8,100,000 francs; fruit, 7,500,000 francs; woolen goods, 7,300,000 francs. The value of the commerce with different countries in 1898 was in francs as follows:

COUNTRIES.	Imports.	Exports.
Germany	314,612,000	194,012,000
France	208,382,000	83,219,000
Great Britain	50,859,000	148,204,000
Italy	158,819,000	88,739,000
United States	73,065,000	73,738,000
Austria-Hungary	66,218,000	43,008,000
Russia	61,099,000	50,619,000
Belgium	26,516,000	12,868,000
Spain	15,550,000	5,098,000
Netherlands	3,205,000	5,090,000
Rest of Europe	13,574,000	24,486,000
Rest of America	24,898,000	18,798,000
Asia	86,852,000	82,171,000
Africa	13,465,000	5,777,000
Australasia	5,906,000	3,523,000
Not indicated		3,245,000
Total merchandise	1,065,305,000	723,896,000

Communications.—The railroads on Jan. 1, 1898, had a total length of 2,374 miles. Their cost up to the end of 1896 was 1,176,294,358 francs. The receipts for that year were 118,393,713 francs; expenses, 70,514,275 francs. The receipts in 1897 from 12,568,109 tons of freight and 46,231,354 passengers were 111,155,255 francs. In pursuance of the law of Feb. 20, 1898, the railroads will be transferred to the Government in May, 1903.

The telegraphs, which belong to the Government, had a total length in 1898 of 4,443 miles, with 13,092 miles of wire. The number of messages in 1898 was 3,977,576, of which 1,684,719 were internal, 1,569,071 international, and 157,256 official.

The post office in 1898 forwarded 93,049,000 domestic and 41,136,000 foreign letters, 24,617,000 domestic and 18,380,000 foreign postal cards, 35,296,000 newspapers and circulars in the domestic and 22,372,000 in the foreign mails, and 5,131,000 domestic postal orders for 563,346,000 francs and 1,086,000 foreign ones for 46,762,000 francs.

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TENNESSEE, a Southern State, admitted to the Union June 1, 1796; area, 42,050 square miles. The population, according to each decennial census since admission, was 105,602 in 1800; 261,727 in 1810; 422,771 in 1820; 681,904 in 1830; 829,210 in 1840; 1,002,717 in 1850; 1,109,801 in 1860; 1,258,520 in 1870; 1,542,369 in 1880; and 1,767,518 in 1890. Capital, Nashville.

Government.—The following were the State officers in 1899: Governor, Benton McMillin; Secretary of State, William S. Morgan; Treasurer, Edward B. Craig; Comptroller, Theodore F. King; Superintendent of Agriculture, John T. Essary, succeeded June 1 by Thomas H. Paine; Superintendent of Instruction, Morgan C. Fitzpatrick; Insurance Commissioner, E. B. Craig; Adjutant General, Horton C. Lamb; Attorney-General, G. W. Pickle; Commissioner of Labor and Inspector of Mines, A. D. Hargis, succeeded June 1 by Robert A. Shiflett; Railroad Commissioners, N. W. Baptist and Messrs. McKenzie and Williams; Factory Inspector, Martin J. Noonan; Prison Commissioners, W. M. Nixon, John H. Trice, and W. M. Morrow, succeeded in July by A. J. McWhirter; Librarian, Jennie Lauderdale; Chief Justice of the Supreme Court, David L. Snodgrass; Associate Justices, W. C. Caldwell,

John S. Wilkes, W. K. McAllister, W. D. Beard; Clerk, A. W. McMillin; Justices of the Court of Chancery Appeals, M. M. Neil, S. F. Wilson, R. M. Barton, Jr.; Clerk, James Turney. All are Democrats.

Finances.—The receipts of the treasury for the first quarter of the year were larger than usual owing to the enforcement of the law requiring county officials to make prompt collections and returns.



BENTON McMILLIN,
GOVERNOR OF TENNESSEE.

The receipts were \$1,364,611, the disbursements \$1,478,490. The cost of the legislative session was about \$86,000.

The bonded indebtedness of the State at the opening of the year was more than \$16,000,000, bearing interest at 3 per cent., and due, most of it, in 1913. The floating debt was \$850,000; \$250,000 of it was paid by June 1, and \$600,000 was then borrowed in New York at 3½ per cent.

The State has a claim against the Government of about \$1,500,000, for the use of public buildings, prisons, railroads in which the State had interest and damage by National troops during the civil war. The Government has a counterclaim against the State, amounting to about half that sum, for bonds and unpaid interest upon them. The State has also a claim for equipment of troops during the Spanish war, amounting to about \$40,000.

Education.—The school population, by the returns of 1899, was 760,183, while in 1898 it was

732,823. There were 7,924 public schools and 9,078 teachers in 1898. The amount distributed from the State school fund for the first half of the year was \$68,899.

The State Board of Education decided in May that no Senator may reappoint negroes to the colored institutions of the State, and that hereafter scholarships will be good for only two years.

The summer normal schools were enabled to do better work this year, by reason of an increase in the appropriation from \$1,500 to \$2,500. They have help also from the Peabody fund.

The report of a committee of the Legislature appointed to investigate the affairs of the Peabody Normal College was quite unfavorable to its financial management; the matter was afterward taken up by a committee of the State Board of Education, which found that the finances had been mismanaged, but did not fix the responsibility, and referred the reports and the testimony to the trustees of the Peabody fund. Other educational institutions of the State were found by the legislative committee to be in satisfactory condition.

A new building for a gymnasium and a manual training school was opened in December at the School for the Blind. W. K. Vanderbilt has supplied Vanderbilt University with funds for a dormitory. The University of the South, at Seawancee, has a school of forestry, established this year under the Government Forestry Commission.

Military.—The militia organization of the State having been broken up by the enlistments for the Spanish and Philippine wars, the military authorities decided that there was no longer a State guard; and the Adjutant General has been forming a new organization. At the close of the year the returns from his office showed 21 organized companies, with a strength of 1,480 men, 25 noncommissioned officers, and 89 commissioned. In addition to the companies forming the Fifth and Sixth Regiments, there are 3 unattached companies of infantry and a troop of cavalry. Three of these 4 organizations are composed of Confederate veterans; the fourth is Company G (colored), of Nashville.

A large number of military, civic, and fraternal organizations took part in the parade which opened the exercises of the reception given to the First Tennessee Regiment upon its return from the Philippines in November.

The Penitentiary.—For the year ending Dec. 1 the gross earnings of the State Prison amounted to \$320,147.31, and the total expenses to \$188,416.69, making net earnings \$131,731.24. Of the gross earnings, \$306,731.35 were covered into the treasury of the State and \$218,470.45 were drawn from the treasury, leaving a balance turned in of \$88,260.30. The difference between the balance of the fund covered into the treasury and the net earnings shown by the report, amounting to \$43,470.94, represents bills and notes to be collected, resulting from sales of coal and coke. The average cost of a convict in 1898 was \$95.90. There are 800 or more prisoners. The Supreme Court decided, Nov. 1, that no workhouse, city, county, or State Prison keeper has a legal right to whip a prisoner. The court sustained a judgment for \$500 returned by a lower court against the keeper of the Knox County Workhouse for whipping a colored woman who was unruly.

Insurance.—For nearly two years the Insurance Commissioner has been examining, through his representatives, the books of all insurance companies doing business in the State, for the purpose of ascertaining the correctness of tax returns, the law requiring a tax on all premiums received in the State. Premiums properly taxable and not reported have been found running back as far as fifteen years, and in all cases companies have been required to pay the tax, as well as 6 per cent. interest. Most of the unreported premiums were due to misconstruction of the law or carelessness. The expenses of examination are paid by the delinquent companies. This is the first time that the State has ever made such investigation.

National Banks.—According to the abstract of the reports of the condition of the national banks of the State, the total resources on Sept. 7, 1899, aggregated \$38,881,748.70. This is \$3,434,411.24 in excess of the total resources as shown by the corresponding statement of 1898. The individual deposits were \$21,090,657.96, as compared with \$17,827,335.97 in September, 1898. The loans and discounts show an increase over those recorded by the last statement of 1898 of nearly \$1,000,000, the amount this year being \$21,395,696.58. There is an increase in the lawful money reserve in the banks of about 33 per cent. as compared with the statement of last September, the figures being \$2,428,050.55, against \$1,803,387.45. In the vaults of the 49 national banks of Tennessee there was \$1,532,579.55 in specie; in legal tender notes, \$895,477.

There is only a fraction of 1 per cent. difference in the average reserve held by Tennessee's banks on the date of the statement in 1899 and that of the preceding year, the figures being 32.09 per cent. this year, against 32.80 last year.

Railways.—The report of the Railroad Commissioners for the last biennial period showed a total main track mileage of 3,186.22, of which 3,049.10 represented the mileage for operations for railway earning purposes; 118 miles have since been added. The cost of the commission, aside from salaries, was \$1,780.89.

In October an agreement was reached by the State Board of Examiners and the attorneys representing the railroads which took out of the courts the litigation in regard to the assessments of railroad property for 1897-'98. In 1897 the railroads of the State were assessed at \$63,818,404, an increase over the previous year of about \$25,000,000. The examiners were enjoined from certifying the assessments, but the Federal court directed the railroads to pay taxes on a basis of 75 per cent. of the assessment. The case was still pending. The present Railroad Commission assessed the railroads for the next two years at \$52,880,718, and the examiners had decided to increase the assessments by about \$6,000,000 when the compromise proposition was made, and, after negotiations, accepted. The assessment as fixed by the commission of \$52,880,718 is to be accepted by the State and by the railroads for all four years—1897 to 1900.

Localized railroad property is assessed at \$2,322,289, as against \$2,689,222 in 1896, and \$3,118,234 in 1897. A compromise was made also with the Knoxville and Ohio, which has a charter of exemption from ad valorem taxes, but has had to pay privileges. The railroad is to pay \$4,500 annually for ten years and then surrender the charter of exemption as to ad valorem taxes.

Telephone and telegraph property is assessed at \$1,332,941.10, as against \$765,067.10 in 1896 and \$2,185,395.50 in 1897.

Industries and Products.—The phosphate industry has been growing rapidly, and large amounts of capital are now invested in it. The product in 1898 was given as 272,191 tons.

The cotton crop of 1898-'99 was 414,000 bales, and the amount consumed by mills in the State 34,316 bales. There are 23 mills with 103,366 spindles.

From the report of the Commissioner of Labor, Statistics, and Mines, published in May, it is learned that the number of coal mines in the State was then 76, of which 61 were in operation, while several others were opened in the summer, and 3,084,748 tons were produced during the year. The maximum number of men employed was 7,820. The amount of coal converted into coke was 736,280 tons.

The production of other minerals was as follows: Iron ore, 595,777 tons; pig iron, 263,439 tons; copper, 89,721 tons; zinc, 454 tons; manganese, 1,250 tons.

All minerals have shown an increase over the previous year, the most marked being in coal, coke, and iron ore. The increase in the output of coal was 203,754 tons; coke, 25,960 tons; and iron ore, 69,013 tons.

There were strikes of miners at the Dayton, Ducktown, and Goddy mines.

Lawlessness.—A dispatch of Sept. 2 says: "Wednesday night 6 Mormon elders were conducting a meeting in a schoolhouse at Pine Bluff, Stewart County, when the building was stormed by a mob of over 100 men. Eggs and rocks were thrown through the windows and the building almost demolished. Those present fled to save their lives, as bullets commenced to strike the building thick and fast. Miss May Harden, a young woman of the place, walked between the elders Olson and Petty with a view to checking the work of the mob. While the trio passed down the road shots were fired from ambush, and the woman was hit and almost instantly killed."

Legislative Session.—The General Assembly met Jan. 2 and adjourned April 24. Hon. Sied Waddell was President of the Senate, and Hon. Joseph W. Byrns was Speaker of the House.

Senator William B. Bate was re-elected to the United States Senate by a vote of 94 to 23 for Hon. G. N. Tillman, the Republican candidate.

Out of 1,721 bills introduced, 435 were passed. Many were important. Among them was the creation of a sinking fund for beginning the payment of the State debt. The tax rate was raised to 50 cents on the hundred dollars; of this 35 will be for general purposes and 15 for schools. The assessment law was redrawn, with a view to reaching personalty that has been escaping taxation and all property that has been rated too low. The power which it seemed to give for back assessments of property that might be found to have escaped its just taxes caused dissatisfaction and criticism; the matter was referred to the courts, and an opinion was rendered at Chattanooga in October that no reassessments or back assessments could be made under the law till 1900, and not then unless the owner refuses to turn in his property at its actual cash value. A State board of equalization was created, to consist of the Treasurer, the Comptroller, and the Secretary of State, who are to serve without additional compensation. The revenue laws were changed so as to increase the income. The fee for filing the charter of a foreign corporation will be \$100. A tax of one tenth of 1 per cent. is imposed on the capital stock of domestic corporations. The fee for registering a charter is raised from \$3 to \$10. The tax on mutual fire-insurance

companies operating outside of their domicile and counties adjacent thereto was increased from \$150 to \$300. Assessment life companies have to pay 2½ per cent. of the gross amount of premiums in the State, instead of a fixed tax of \$200 a year. The tax of 1½ per cent. on the premium receipts of home companies was repealed.

A privilege tax of \$500 was imposed upon trading stamp companies in each county where business is done by them; and every merchant dealing with or through such companies must pay a tax of \$250. Other privilege taxes were changed.

A local option bill was defeated, but a measure was passed which allows towns under 2,000 to incorporate without being required to grant licenses for the sale of liquor, and towns of that size may surrender their charters and reincorporate.

Gov. Taylor pardoned or commuted sentence of nearly 700 convicts during his two years of office. A statement was made by a Senator that money had been used in procuring the pardons, and he was requested to file specifications and substantiate or withdraw his charges. It does not appear that he paid any attention to the resolution. But it was thought best to relieve the Governor of the whole responsibility for granting and refusing pardons; and the Prison Commissioners were constituted a board of pardons to advise with the Governor and to serve in this capacity without additional compensation.

Several bills were introduced with the object of reducing the cost of schoolbooks, and the Governor sent in a special message on the subject. The result was a schoolbook commission, consisting of the Governor, the Superintendent, and three members of the State Board of Education, who are to select a subcommittee of five men actively engaged in school work.

At the request of the union labor men, the office of Shop and Factory Inspector was created. The salary, \$1,500, is to come from the fees charged to factories inspected. Only counties of more than 30,000 inhabitants are affected.

The negotiable instrument law proposed by the conference of commissioners on uniform legislation was adopted. It was provided that contracts for payment of money in gold, silver, or coin may be discharged in any legal tender.

The keeping or conducting of halls or houses where the game of craps is played was made a felony.

The appropriation for pensions to Confederate soldiers is \$100,000. The sum for maintenance of the National Guard is \$10,000. For repairs upon the Capitol \$10,000 was appropriated. The annual appropriation of \$20,000 to the Peabody Normal Institute was continued.

Among other measures were the following:

Providing that contractors on public work must give bond to pay laborers and those that furnish material.

Making wages up to \$30 exempt from execution or attachment.

Making it unlawful for news agencies to discriminate against newspapers, and for an employee to aid in the business of an agency refusing to supply.

Making Saturday afternoon a legal holiday.

Requiring fire escapes in hotels.

Allowing graduates of the school of osteopathy at Kirksville, Mo., to practice in the State.

Regulating primary elections in counties of 100,000 to 110,000.

Abolishing the office of State Geologist and Mineralogist.

Reducing the pensions of disabled soldiers.

Making the second Friday in May Confederate Memorial Day.

Providing that franchises be submitted to vote in cities of 36,000 or more inhabitants.

Decisions on Laws.—In the United States Court at Memphis, Oct. 17, the opinion was filed that a homestead, though exempt from executions at law in ordinary prosecutions, must be included in the aggregate of value in a proceeding in bankruptcy.

The Supreme Court of the State passed upon the cigarette law in September, declaring cigarettes not legitimate articles of commerce, and upholding the law.

The law of 1877 regulating foreign corporations for mining or manufacturing was declared void in so far as regards the provision that creditors resident in the State shall have priority in distribution of assets over creditors of other States and countries, because it violates the United States Constitution, which declares that citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

A decision affecting combines was given by the Supreme Court at Memphis in June. Memphis plumbers formed an association, requiring the members to pay into the treasury of the association taxes graded in accordance with the work performed when a member did work in competition with another member, and brought suit to compel such payment. The court held that the by-law of the association providing for a tax upon a member when work is done in competition with other members is void because in restraint of trade and public policy, its tendency being to prevent and destroy competition; that associations formed for farming out business and work, as this association is shown to have been, can not use the courts to discipline recalcitrant members.

TEXAS., a Southern State, admitted to the Union Dec. 29, 1845; area, 265,780 square miles. The population, according to each decennial census since admission, was 212,592 in 1850; 604,215 in 1860; 818,759 in 1870; 1,591,749 in 1880; and 2,235,523 in 1890. Capital, Austin.

Government.—The following were the officers of the State for the year: Governor, Joseph D. Sayers; Lieutenant Governor, J. S. Browning; Secretary of State, D. H. Hardy; Treasurer, J. W. Robbins; Comptroller, R. W. Finley; Superintendent of Public Instruction, J. S. Kendall; Commissioner of Agriculture, Jefferson Johnson; Adjutant General, Thomas Scurry; Commissioner of the General Land Office, Charles Rogan; Attorney-General, T. S. Smith; Chief Justice of the Supreme Court, Reuben R. Gaines; Associate Justices, Thomas J. Brown and F. A. Williams; Clerk, Charles S. Morse—all Democrats.

Finances.—On Aug. 31, 1898, there was a balance in the treasury to the credit of general revenue of \$811,279.74; the receipts during the year ending Aug. 31, 1899, amounted to \$2,790,897.18; making the total receipts, including balance, \$3,602,176.92. There was disbursed during the same period \$2,375,607.60; transfers adjusting accounts amounted to \$133,761.38; leaving a balance on hand, Aug. 31, 1899, of \$3,092,807.94. This shows that at the close of the fiscal year there was an increase in the cash balance of \$281,528.20, the increase being accounted for by the Comptroller "because of economy in expenses throughout the administration, fewer delinquencies, and closer collection of taxes, and also because of the fact that a large percentage of the appropriations made by the last Legislature for permanent improvements at the various eleemosynary institutions of the State had not been

expended at the close of the fiscal year." The receipts and disbursements of the available school fund during the same period were: Balance on hand in 1898, \$97,789.85; receipts during the fiscal year, \$3,151,409.18; total receipts, including balance, \$3,249,199.93; disbursed during the same period, \$3,232,624.27; leaving a balance on hand of \$16,574.76. The permanent school fund had a cash balance in 1898 of \$967,157.12; the cash received during the fiscal year amounted to \$1,268,059.63, making a total of \$2,235,216.75; the disbursements during the same period amounted to \$261,874.95, leaving a cash balance of \$1,973,341.80; bonds on hand to the credit of this fund in 1898 amounted to \$6,962,531.54, the value of county bonds purchased during the year being \$250,002, making a total of \$7,212,533.54; county bonds redeemed during the year, \$765,286.49; leaving a balance on hand in 1899 of \$6,447,247.05. The occupation taxes yielded an aggregate of \$916,997.53, a decrease from the previous year of \$24,703.55, the principal receipts being from the following occupations: Retail liquor dealers, \$555,600; wholesale liquor dealers, \$12,000; beer dealers, \$91,200; merchants, including pawnbrokers, \$149,891; physicians, \$19,610; lawyers, \$11,175; bankers, \$10,900; billiard and pool tables, \$9,740. The total value of taxable property in 1899 was shown to be \$922,927,231, which was an increase of \$69,307,866 over the previous year. The Comptroller says, in his report for 1899: "There is a general increase in almost every form of taxable property, most notable of which is an increase of \$4,281,890 in lands in organized counties; town lots, \$2,848,171; cattle, \$7,160,792; goods and merchandise, \$2,157,461; moneys rendered by others than bankers, \$2,577,097; notes and other credits rendered by others than bankers, \$1,430,394; amount of shares of capital stock companies and associations, \$3,167,881; miscellaneous property, \$37,870,275, in which item franchises are included; railroads, \$6,417,616, exclusive of railroad franchises assessed; telegraph and telephone lines, \$329,308."

Education.—A summary of school property and expenditures in the cities containing over 8,000 inhabitants showed: Number of school buildings, 157; number of seats for study, 46,533; value of all public property used for school purposes, \$3,127,704; expenditure for supervision and teaching, \$572,839; expenditure for all purposes, loans and bonds excepted, \$718,321. There were 8 institutions for the colored race in operation, with 82 teachers; the elementary students numbered 1,748, the secondary 471, the collegiate 72, the total being 2,291. There were 14,400 colored persons in the industrial training schools.

Railroads.—There were 9,540.21 miles of railroad in the State, exclusive of yard tracks and sidings, which amounted to 1,528 miles. The net increase in length of tracks of all classes was 181.4 miles. There were 72 different roads in operation. The total earnings for the year were: Passenger, \$7,209,766.46; mail, \$1,090,927.85; express, \$677,247.86; extra baggage, etc., \$93,026.52; freight, \$31,170,645.94; miscellaneous, \$860,972.51; total, \$41,102,587.14. This was an increase of \$3,762,360.45, or about 10 per cent. over the gross earnings for the preceding year. The operating expenses were: Maintenance of way and structures, \$7,409,387.05; maintenance of equipment, \$4,347,020.64; conducting transportation, \$17,046,892.93; general expenses, \$1,460,646.51; unclassified, \$29,801.13; aggregate, \$30,293,749.16. The general average of percentage of operating expenses to gross earnings was 73.70 per cent. Taking the roads as a whole, their averages per

mile were as follow: Freight earnings, \$3,291.47; passenger train earnings, \$957.85; gross earnings from all sources, \$4,330.70; operating expenses, \$3,194.86; and net earnings, \$1,135.84.

Galveston.—Galveston has become the first cotton exporting point in the United States, and, as the Galveston News puts it, "is therefore the biggest primary cotton port of the world." New Orleans is the only point that Galveston recognizes as a competitor. The following facts are given by the Galveston News: "The past year witnessed the consummation of negotiations for the union of the Southern Pacific rail and steamship interests at Galveston. The coming of the Southern Pacific means a largely increased business at this port. The concentration of business at Galveston will make it the basing point for southwestern rates. This city occupies fifth place among the 127 foreign exporting points of the United States. During the past season she exported 6.39 per cent. of the merchandise that left the country. Her exports increased \$10,500,000, or 13 per cent., during the year. The navigable depth of water in the channel, where the bars formerly were, is 27 to 29 feet. In the season of 1896-'97 deep water was first utilized to any great extent, and beginning with that season the port has each year made gigantic strides forward. There is a greater variety of articles exported than ever in the history of the port, for the reason that the West is sending its products to the Old World through here, these products in previous seasons having gone by way of Atlantic ports. The import articles also show a greater variety, owing to the fact that the demand for import goods through Galveston is from a greatly widened territory. Galveston handled 67.91 per cent. of the 1898-'99 cotton crop, against 68.80 per cent. for 1897-'98. There was an increase for 1898-'99 in wheat exports of over 3,000,000 bushels compared with the previous season. Galveston is becoming a great lumber port. The exports of lumber and wood manufactures for 1898-'99 were \$1,247,914, against \$1,120,539 for the previous year, this business having been built up almost entirely since the advent of deep water. The exportation of hog and dairy products, eggs and poultry, is also a new business which contains unknown possibilities. The port handled \$200,000 worth of eggs the past season. The close of the war with Spain was followed by the exportation of live stock to Cuba through this port, the live stock exports to Cuba in 1898-'99 being \$676,254, against \$295,572 the previous year."

Cotton.—Statistics place the cotton crop of 1898-'99 at 3,574,921 bales. The crop for 1897-'98 was 2,948,826 bales. Thus there was an increase of 626,095 bales.

The Brazos Flood.—A large part of the Brazos valley was flooded in August, the counties that suffered most being, in the order named, Fort Bend, Washington, Milam, Burleson, Waller, Austin, Brazos, Robertson, Falls, Grimes, Brazoria, Bell, and McLennan, the loss ranging from \$2,500,000 to \$10,000. A report issued by the United States Department of Agriculture, which sent a statistician to the submerged region, gave the following facts: The farms submerged had a total area of about 1,380,000 acres. Of this area, at the time of the flood, about 503,000 acres were under cultivation, 339,000 acres being in cotton, 124,000 acres in corn, 10,800 acres in sugar cane, and 28,600 acres in other crops, with a total production in sight equivalent to about \$7,950,000. The value of the land itself was estimated at \$16,322,000, that of the buildings and other improvements at \$3,678,000, that

of implements and machinery at \$364,000, that of live stock at \$2,955,000, and that of corn on hand at \$127,000, a total of \$23,446,000, exclusive of growing crops. This land, yielding in an ordinary season a general average of three fourths of a bale of cotton, or 40 bushels of corn, to the acre, was submerged to a depth of 2 to 20 feet, during about eight days, for the entire area of about 2,160 square miles.

It was estimated that the actual destruction included about 227,000 bales of cotton, representing, at an average price of $\frac{1}{4}$ cents a pound, about \$5,100,000; 4,400,000 bushels of corn, worth 20 cents a bushel, \$880,000; sugar cane to the value of \$355,000; and other crops estimated at \$235,000; a total loss of standing crops of \$6,570,000. This amount, added to farm property, made the total loss \$7,414,000, or about \$74 per capita of the population of the district, which was estimated at 100,000, negroes largely predominating.

Lynching.—In May there was a triple midnight lynching in Henderson County. George Humphries, colored, and his two sons were taken from their farm homes, which were within a few hundred yards of each other, and all three were hanged on one tree by a mob. It was charged that the Humphries were concealing a man who was suspected of killing a constable of the county a year before.

TONGA, a Polynesian kingdom in the Tonga or Friendly Islands. There is a Legislative Assembly of 31 hereditary nobles and an equal number of elected members. The reigning King is Taufa Ahau, styled George II. The Prime Minister is Josateki Tonga.

The islands have an area of about 385 square miles. The population in 1807 was 20,917, including 479 foreigners. The people profess Christianity, and have been taught by Wesleyan missionaries. The value of imports in 1898 was £35,176 and of exports £39,464. About one third of the trade is conducted by Germans; most of the rest of it by British houses. The chief export is copra, and next to that come fruits, mats, combs, and fish nets. The revenue, amounting to about \$100,000, is derived from customs, a poll tax, and leases. No lands can be sold to foreigners. In January, 1899, Germany made preparations to establish a coaling station on the island of Vavao. Debts due from the natives to a German company were made the basis of the claim. A British ship was sent with authority to raise the British flag over the whole archipelago, and in consequence of this the Germans desisted from their purpose. By the Anglo-German agreement conceding to Germany the right to annex the Samoan Islands, with the exception of the portion relinquished to the United States, Germany renounced all claim to interfere in the Tonga Islands, and recognize them as under English influence, besides ceding two of the principal islands of the Solomon group.

TURKEY, an absolute monarchy in eastern Europe and western Asia. The Sultan is the eldest prince of the line of Osman. Abdul Hamid II, the thirty-fourth Sultan of the Osmanli dynasty, born Sept. 21, 1842, succeeded his brother Murad V, who was deposed on Aug. 31, 1876, on the ground of insanity. The Sultan is recognized as Khalif, or temporal chief of Islam, not only within the bounds of the Ottoman Empire, but by a large proportion of the Sunnite Mohammedans outside. In matters of religion and law the Sultan is advised by the Sheikh-ul-Islam and guided by the decision of the Ulema, a body of eminent expounders of the sacred books that sits in

Constantinople. In civil and political matters the Sadrazam, or Grand Vizier, is the chief executive officer under the Sultan. These two functionaries, together with ministers at the head of the departments of state, form the Privy Council, or Cabinet, which was composed at the beginning of 1899 as follows: Grand Vizier, Halil Rifat Pasha; Sheikh-ul-Islam, Jemaleddin Effendi; Minister of War, Riza Pasha; Minister of the Interior, Memduh Pasha; Minister of Foreign Affairs, Ahmed Tewfik Pasha; Minister of Marine, Hassan Pasha; Minister of Finance, Reshad Pasha; Minister of Justice, Abdurrahman Pasha; Minister of Public Works and Commerce, Mahmud Pasha; Minister of Public Instruction, Zuhdi Pasha; Grand Master of Artillery, Mustafa Zeki Pasha; Intendant of Religious Endowments, Galib Pasha; President of the Council, Said Pasha. The Ministry of Public Works becoming vacant, Zihni Pasha was appointed.

Finances.—The average revenue of the Ottoman Government for the three years ending with 1895 was £ T. 18,927,745. The revenue for 1898 was estimated at £ T. 18,511,322. The yield of the land and property tax was estimated at £ T. 2,511,924, of the military exemption tax at £ T. 886,210, of various direct taxes at £ T. 321,273, receipts from military departments at £ T. 532,793, the Government's share in the profits of the tobacco *régie* at £ T. 51,775, tribute revenues, part of which are assigned to the Debt Administration, at £ T. 1,136,316, and revenues from salt, tobacco, spirits, stamps, fisheries, silk, and other sources, mostly assigned to the Ottoman Debt Administration, at £ T. 2,571,146. All these are taken at the same figures as the average receipts for the years aforesaid, but tithes were reckoned at £ T. 4,100,000 instead of £ T. 4,332,338, income tax at £ T. 500,000 instead of £ T. 742,135, the sheep tax at £ T. 1,937,840 instead of £ T. 1,737,849, customs at £ T. 2,000,000 instead of £ T. 2,165,784, and receipts of civil departments at £ T. 1,962,036 instead of £ T. 1,938,202. The expenditures for the three years ending with 1895 amounted on the average to £ T. 19,796,182, of which £ T. 932,550 were for the civil list, £ T. 6,483,253 for the debt, £ T. 795,490 for pious foundations, £ T. 5,296,953 for the army, £ T. 1,254,174 for the gendarmery, £ T. 653,170 for the navy, £ T. 552,122 for the artillery, £ T. 901,853 for the Grand Vizierate, Council of State, and Ministry of the Interior, £ T. 583,939 for the Ministry of Finance, £ T. 450,541 for the Ministry of Justice, and £ T. 1,892,137 for other civil departments. The estimated total expenditure for 1898 was £ T. 18,429,411. The civil list was cut down to £ T. 882,550, pious foundations to £ T. 749,484, expenditure on the army to £ T. 4,489,698, on the gendarmery to £ T. 1,013,944, on the navy to £ T. 546,209, and on the artillery to £ T. 462,177, while the expenses of civil departments were estimated at higher figures, the Grand Vizierate, State Council, and Interior Department at £ T. 980,322, the Ministry of Finance at £ T. 668,011, the Department of Justice at £ T. 461,441, and other departments at £ T. 1,707,269. The debt charges are £ T. 750,059 for tributary debt, £ T. 2,861,991 for loans under the Debt Administration, £ T. 1,204,839 for other loans, £ T. 523,523 for floating debt, £ T. 868,894 for railroad guarantees, and £ T. 450,000 for the war indemnity to Russia; total, £ T. 6,159,306.

A loan of £5,000,000 sterling contracted in 1854 and one of £5,700,000 contracted in 1871, both of which were converted into 3½-per-cent.

bonds in 1894, and one of £5,000,000 contracted in 1877 and converted into 4-per-cents. in 1891, are all secured on the Egyptian tribute. One of £7,427,260, raised in 1878 to pay advances of Galata bankers, was made a first charge on indirect contributions conceded to the bondholders. A compromise was made with the creditors in 1881, and all loans except these and the loan of £5,000,000 raised in 1855 and guaranteed by France and Great Britain, were consolidated into four series, for the payment of the interest and sinking fund of which the excise duties, the Bulgarian, Eastern Roumelian, and Cyprus tributes and the tax on Persian tobacco were handed over to an international council of administration, which was to devote 20 per cent. of the collections to the sinking fund and 80 per cent. to interest, paying over to the Government any surplus if the maximum interest of 4 per cent. should be reached. The interest paid has in fact not been over 1 per cent. The debts contracted subsequently have been placed in charge of the Council of Administration, with the exception of the 5-per-cent. loan of £5,909,080 raised in 1886 and guaranteed by the customs and the 4-per-cent. Tumbeki loan of £900,000 raised in 1894. The outstanding bonds of the series A, B, C, and D amounted on July 1, 1898, to £78,303,942 sterling, various loans contracted between 1888 and 1894 to £28,304,620, lottery bonds to £13,045,084, the 5-per-cent. customs loan of 1886 to £4,892,471, the Tumbeki loan to £859,600, and the 5-per-cent. loan of 1896 to £2,945,200; total, £128,350,917. Besides this bonded debt, the Turkish Government owed £ T. 24,513,000 of war indemnity to Russia, £ T. 50,000 to Russian subjects, and £ T. 273,494 to the Damascus Railroad Company; total, £ T. 31,551,958. A loan raised in 1855, of which £ T. 4,196,720 were outstanding, the 4-per-cent. defense loan of 1891, amounting to £ T. 6,737,412, and the 3½-per-cent. loan of 1894, amounting to £ T. 8,896,294, were guaranteed on the Egyptian tribute. Arrangements were made in 1899 for the conversion of the 4-per-cent. loan of 1855, the customs loan of 1886, and the fisheries loan of 1888. The revenues of the vilayets of Konia, Sivas, Angora, Castamouni, and Adana are pledged for the payment of the Russian annuity of £ T. 350,000.

The Army and Navy.—Every Turkish subject capable of bearing arms owes three years of service in the active army. If assigned to the cavalry or artillery, he serves four years. Any conscript, however, at the end of five months can purchase his discharge by paying 30 Turkish pounds. After serving their time in the permanent army, infantrymen are attached to the reserve for three, cavalry and artillery soldiers for two years. For the next eight years they are liable to be called out with the Redifs or territorial army, and for the following six years in the Mustahfiz or territorial army reserve. The Nizams, or regular troops, are armed with Mauser rifles of 7.65 millimetres, with five cartridges in the magazine, or of 9.5 millimetres, with 9 cartridges. The nominal strength of the permanent army in 1898 was 350,000 men; of the territorial army, 300,000 men; of the territorial army reserve, 250,000 men; total, 900,000 men, 750,000 of whom possess a complete military training.

The navy in 1898 consisted of 3 armor clads with casemated batteries, having an aggregate tonnage of 20,507, with 37 guns, named respectively the Assar i Tewfik, Hamidije, and Messudije; 2 turret ships, the Azizije and Osmanije; 2 broad-side ships, 7 corvettes, 1 monitor, 1 ironclad gunboat, 2 river gunboats, 2 torpedo catchers,

and 15 first-class and 7 second-class torpedo boats. The total tonnage of 42 vessels is 66,947; total motive power, 51,411 horse power; armament, 153 guns.

Commerce and Production.—Only a small fraction of the land in Turkey, a part of the house property in towns and land purchased from the Government by villagers, is freehold. Of greater extent, but still inconsiderable, are the lands granted in former times to the spahis for military services, which are hereditary and exempt from tithes. The vacouf lands, granted for religious and charitable uses, although officials divert the revenues into their own pockets, have a large aggregate area. The bulk of the land, however, belongs in theory to the Government, which collects a fee from every occupier, and has the right to oust him if he neglects to cultivate his farm for three years. The lack of roads or other means of communication, the system of levying tithes on all produce, and the exaction of transit dues at the boundaries of the provinces combine to discourage agriculture, although the soil is generally fertile. About 44,000,000 acres are cultivated and 21,000,000 acres under forests. Cereal crops, tobacco, cotton, figs, olives, almonds, grapes, wine, various nuts and fruits, coffee, madder, opium, silk, and gums are the products of various parts of the empire. Forest regulations copied from those of France have been adopted, but since they are not enforced the country is being stripped of its forests. The production of wine is about 1,000,000 hectolitres per annum, of which 160,000 hectolitres are exported. The production of cocoons in 1896 was 5,386,119 kilogrammes, valued at 58,568,561 piasters. The opium product in 1897 was 8,000 chests of 50 to 60 okes, or 140 to 170 pounds; but in 1898 it fell off to 3,500 chests. The production of oil of roses in 1898 was 2,000 kilogrammes. The mineral resources of the country include coal, copper, iron, lead, silver, manganese, chrome, bitumen, sulphur, salt, and alum, but there is very little mining, owing partly to the restrictive laws. The fishery products are numerous and valuable. The fish caught in the Bosphorus are valued at 15,000,000 piasters a year. On the Mediterranean coast sponges of fine quality are obtained, in the Red Sea pearl shells, and in the Persian Gulf pearls. The total value of imports in 1896 was 2,057,567,000 piasters and of exports 1,553,563,000 piasters.

The value in piasters of the commerce with various countries in 1896 is shown in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain	741,560,000	639,511,000
France	237,265,000	365,707,000
Austria-Hungary	437,098,000	190,903,000
Russia	160,299,000	37,773,000
Italy	67,119,000	55,813,000
Bulgaria	87,728,000	34,710,000
Roumania	61,255,000	20,018,000
Belgium	59,462,000	9,642,000
Netherlands	16,216,000	51,733,000
Germany	23,493,000	41,597,000
Greece	39,412,000	28,413,000
Persia	55,837,000	1,625,000
Egypt	53,221,000	
United States	3,370,000	35,539,000
Serbia	4,233,000	6,160,000
Sweden	4,327,000	
Tunis	2,655,000	12,000
All other countries	3,077,000	4,537,000
Total	2,057,567,000	1,553,563,000

Navigation.—The merchant marine of the Turkish Empire consisted in 1898 of 1,349 sailing vessels, of 252,947 tons, and 87 steamers, of

46,498 tons. There were 14,753 vessels, of 11,456,178 tons, entered and cleared at Constantinople during 1897, and of these 11,146, of 11,183,508 tons, were in the foreign trade, comprising 2,667 sailing vessels, of 316,126 tons, and 8,479 steamers, of 10,867,382 tons.

Railroads and Telegraphs.—Railroad communication between Turkey and other European countries was first established in 1888. The total length of railroads in operation in 1897 was 2,542 miles. The Government pays about £ T. 650,000 of guaranteed interest each year. In September, 1898, the length of railroads was 2,807 miles, of which 1,247 miles were in Europe, 1,347 miles in Asia Minor, and 213 miles in Syria.

The telegraph lines have a total length of 21,800 miles, with 33,760 miles of wire. The annual receipts are 21,359,000 piasters; expenses, 7,237,000 piasters.

Political Events.—The agitation that is started in Macedonia nearly every spring was more actively pursued by the Macedonian committees in the early part of 1899 than usual, because the approaching peace conference at The Hague raised hopes of European intervention. It was stimulated also by seeing a Greek prince chosen as ruler of Crete, indicating ultimate annexation to the Hellenic Kingdom in spite of the warning of the powers that neither belligerent should profit by the Greco-Turkish War. The Bulgarian and Servian governments discouraged any popular agitation, having no desire to enter upon a conflict with Turkey or with one another, and being warned anew by Russia and Austria acting in concert. The Turkish Government, in order to avert all danger, strengthened the already enormous military force that it had maintained in Macedonia since the Greek war until there were 200,000 soldiers within striking distance of the border. The Albanian Mohammedans had received arms from the Government when the attitude of the Balkan states became threatening during the Greek war, and now the Vali proposed to the chiefs that they should give them up, as they seemed likely to prove a troublesome element. The chiefs replied that they saw no reason why their people should be disarmed.

The activity of the Roumanians in establishing schools in Macedonia roused the jealousy of the Bulgarians, and the direct action of the Roumanian Minister of Public Instruction in appointing teachers for the Roumanian schools in Monastir, Salonica, and Kossovo was regarded as inadmissible by the Grand Vizier, who refused to recognize the professors appointed by a foreign government, and ordered the schools to be placed in the hands of Ottoman subjects of proved loyalty, appointed in the country itself, as had been formerly customary. The Greek schools, while still the most numerous, have receded before the later Bulgarian movement. The whole Christian population, in spite of acute rivalry among the various nationalities, is represented by the Macedonian committees as united in the desire for liberation from the Turkish yoke and as capable of harmonious self-government. The Central Committee in January addressed a memorial to the representatives of the powers at Constantinople calling upon Europe to rescue 2,000,000 Christians from cruel Mussulman fanaticism, and reiterating the demand made in 1896 for a Christian governor general at Salonica to rule over the vilayets of Salonica, Monastir, and Uskub with the aid of a General Assembly of representatives elected by the people. An encounter occurred in February between a Christian Albanian tribe and the Mohammedan inhabitants

of Mitrovitz. The Arnauts in Old Servia had numerous conflicts with the Serbs. Serious disturbances in Kossovo caused the Turkish authorities to re-enforce the garrisons in that vilayet. On May 17 a fight between Albanians and Serbs near Vronya led to the interference of the Servian frontier guard. On June 13 a collision took place between the Servian frontier guard and Turkish Nizams in the district of Jablonitz.

The Armenians about Van and down the valley of the Tigris suffered extreme distress in the early part of 1899, owing to a bad harvest, and contributions were collected abroad to relieve them. Some of the orphanages that had been opened by English and American missionaries were closed by the authorities on the alleged grounds that they harbored seditious persons or were used for proselyting. As the result of representations made by the British and American ambassadors, the Porte ordered that the orphanages be reopened. On Oct. 11, by recommendation of a commission appointed to investigate the Armenian question, it was ordered in an imperial irade that the special measures for preventing the free movement of Armenians in the provinces be abolished except in the case of suspected persons; that churches, schools, and monasteries destroyed during the Armenian troubles be rebuilt with Government assistance; that the sums due to Armenian Government officials who were killed or expelled be paid; that an orphanage be built at Yedikule, near Constantinople; and that 54 Armenian prisoners be pardoned and 24 who were sentenced to death have their sentence commuted into imprisonment for life.

The condition of the Mohammedans in Crete was so unendurable that all emigrated who could. The Sultan gave £ T. 100,000 from his privy purse to enable others to escape the oppression of their Christian fellow-countrymen. The Turkish authorities conveyed them to Asia Minor and left them in most cases to shift for themselves. In the vilayet of Adana, where 3,000 of them were located, they terrorized the population by their depredations. In Smyrna there were 24,000 in the summer, and it was decided to distribute them all over the Asiatic vilayets. The plan of sending them to Armenia, and the Armenian refugees from Russia to Crete, was regarded with favor. The Druses in Hauran gave trouble by withholding their taxes, and the Government was unwilling to proceed to coercion because of their determined attitude. Arms and ammunition were smuggled into Syria. European influence has gained a foothold in Palestine through the Jewish colonies established there, which rear silkworms, raise grapes, olives, and almonds, and make wine, and have infused a love of agriculture into the Oriental Jews, who were formerly content to live on charity while studying the Talmud. The immigrants are already twice as numerous as the original Jewish population, and of the 200,000 inhabitants of the country one fifth are now Jews.

The German concessionaries who built the Anatolian railroads obtained permission to build a harbor at Haidar Pasha. A German firm obtained a concession for a telegraph cable between Kustendji and Constantinople, which is to be extended through Bucharest to Berlin, forming an alternative line of telegraphic communication with western Europe. The Germans, the English, the French, and the Russians competed for a concession to build a railroad through Asia Minor and Mesopotamia to the Persian Gulf. The German and French united their interests, and the Anatolian Railroad Company obtained the con-

cession for the continuation of its line to Bagdad. The line is to run from Koma, the southern terminus of the present Anatolian Railroad, through Adana, Marash, Aintab, Urfa, Diarbekr, and Mosul to Bagdad, with the right to extend it to Basra. It is to be completed in eight years, and any time after its completion the Turkish Government has the right to take over the lines, binding itself to intrust the administration to officials of the Anatolian Railroad in case it finds that it can not work them with its own officials. The line from Constantinople to Bagdad and Basra will shorten the route to India and the far East, enabling European passengers to embark on the Persian Gulf instead of in southern Europe, and it will pass through a region that was once the granary of the world, a region also of great mineral resources. The Anatolian Railroad has already done much to build up the part of Asia Minor through which it passes by greatly increasing the agricultural production.

The insurrection in Yemen, after apparently subsiding, was renewed as soon as Turkish troops attempted to occupy new posts in the country. The Turkish forces operating against the Arab insurgents in Yemen achieved several victories in November and December, 1898, capturing the rebel position in Shanel and occupying villages on the road between Hodeida and Sana. Abdullah Pasha, the Turkish commander, next advanced

upon Sadeh. The province of Yemen has a population of about 3,000,000, mostly cultivators of the rich soil, which produces all kinds of grain. The Turkish forces numbered 38,000 men, and the Government refused to augment them, relying on the conciliatory policy of the vali, Hassan Hilmi Effendi. His efforts seemed to promise success, but later disturbances were renewed, and the Turkish army, although re-enforced, was not able to accomplish much. Abdullah Pasha marched into the hostile country in May, but was forced to retire to Sana, after losing many of his men from hunger, disease, desertion, and Arab night attacks. In June he proceeded northward to attack the tribes occupying Kuflet el Azin, and was again compelled to retreat. The country between Sana and Hodeida was thoroughly subdued. North of that line the Imam Zeid, the religious leader of the rebellion, controlled all the fertile valleys of the mountains, having his headquarters at Sadeh. The Turkish troops were able to penetrate a short distance into the mountains and destroy some of the coffee plantations. The fortified villages in the hills, only accessible by narrow paths, they could not reach. The causes of the formidable rebellion of 1890 have never been removed; indeed, they have their root in the hatred and contempt felt by Arabs generally for Turks. The Arabs of Yemen refuse to recognize the Sultan as the Khalifa.

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UNITARIANS. The Unitarian churches in the United States return for 1899 552 ministers, 460 churches, and 71,000 members, showing a gain for the year of 9 ministers, 11 churches, and 1,000 members.

American Unitarian Association.—The secretary of the American Unitarian Association reported at the annual meeting of that society that the number of contributing churches had risen from 274 in the past year to 319 in the present year—the largest number in the history of the association. The gifts for current expenses had aggregated \$57,513, against \$52,397 in the previous year; and the bequests for capital account had amounted to \$39,591, against \$7,397 in 1898. The association closed the year with a surplus of \$8,000. During seven years that Mr. Charles P. Ware, who now retired, had served as secretary of the Church Building Loan fund, that fund had increased from \$104,923 to \$142,326, and loans had been made to 49 societies. Among the notable incidents of the year's operations of the society it was mentioned that several churches had given the association trust deeds for their real property, reserving the right of occupancy so long as they shall continue to be living Unitarian churches. By accepting the Tompkins fund and the Annie Delano Hitch fund, the association had adopted a new policy, and had declared its willingness to become the trustee of funds of which the income goes to aid the work of certain local parishes. Mrs. C. B. Hackley, of New York, had given notice of her purpose to transfer to the association her property at Tarrytown, N. Y., for the establishment of a school for boys. The work of the publishing department had been somewhat accelerated. New tracts had been added to the lists, while the older ones had continued to be circulated; 1,088 copies of Channing's works had been given to ministers and divinity students applying for them; the weekly

journal the Christian Register had been published, and a monthly bulletin issued in co-operation with the Woman's Alliance and the Young People's Religious Union had been circulated gratuitously. The growth of the churches under the care of the home missionary department toward stability and self-support had been more rapid than usual, and the abolition or reduction of the subsidies heretofore granted to a number of the aided churches had made practical the inauguration of some new enterprises and the support of other churches which needed it.

At the seventy-fourth annual meeting of the association, held in May, resolutions were passed recognizing "the intellectual agreements and the deep faith of the heart which, beneath all diversities of gifts, bind together the Unitarian and the Universalist fellowships," and inviting the Universalist General Convention to join with the association in appointing a conference committee of five members from each body to consider plans of closer communion and devise ways and means for more efficient usefulness.

Meetings were held in connection with the meeting of the Association of the Unitarian Sunday-school Society, the National Alliance (Unitarian Women's), and the Unitarian Temperance Society.

The National Conference.—The eighteenth meeting of the National Conference of Unitarian and other Christian Churches was held in Washington, D. C., Oct. 16 to 19. The Hon. George F. Hoar presided. The report of the council began with a review of the history of the convention, the founders of which, in 1864, had in view the extension of Unitarian thought and doctrines to all parts of the country. Since then the number of Unitarian churches, said the report, "has increased faster than the population of the country, although we have not made the inroad which we should have made on the well-organized ranks of

persons baptized in Europe by the Church of Rome. . . . It has proved, however, that the increase of the Unitarian Church is especially within the ranks of other congregations than ours. . . . With the advancing catholicity of the creed-bound churches, it is easier for conscientious Unitarians to join them or to remain in them than it was." Strong churches had been founded during the preceding two years in Ottawa, Canada; Amherst, Mass.; Lincoln, Neb.; Erie, Pa.; Dunkirk and Jamestown, N. Y.; and several smaller places. The need of a school where Unitarian principles were upheld had been met by the establishment of an institution of high grade at Tarrytown, N. Y. A proposition was offered for the purchase of Lithia Springs—a convenient camp ground in southern Illinois where summer assemblies were held—for \$8,000. The order of business of the meeting was so arranged that subjects relating to the fundamental necessities of religion should be discussed on the first day; those concerning the practical demands which the year and the country made upon religious men on the second day; and the reports of the American Unitarian Association and other executive agencies of the Church on the third day. A report on the better organization of the church life of the denomination was adopted, recommending that each church "give honor and dignity to its statement of religious spirit and purpose; make its statement simple, clear, and strong; and having its membership involve no test of creed or sacrament, shall make it expressive of Christian purpose and a pledge of loyalty. The simple statement, 'In the love of truth, and in the spirit of Jesus, we unite for the worship of God and the service of man,' which is in use in more than 80 of our churches, is commended; that this or some similar statement be made by each parish or incorporated in the articles of organization of the society or parish; and that all persons in the parish be urged and invited to subscribe to the same, and thereby become members of the Church." The report also advised that the classes in the Sunday schools, when their members come to maturity, be encouraged to join the Church publicly "after some definite preparation and instruction." Rules were adopted defining the powers and method of proceedings of the Fellowship Committee, the duty of which is to prepare and look after the list of Unitarian ministers. A resolution was adopted giving advice concerning the conditions governing the ordination of ministers, to the effect that a candidate for the Unitarian ministry should be ordained "only by a church or other religious society, or at the request of a church or other religious society, after a call duly given has been accepted by the candidate, except that, whenever it is desirable to ordain a person for special service other than the pastorate of a church, then, by the approval of the Fellowship Committee, the faculty of a divinity school or the officers of a conference may ordain." An expression of sympathy with the Protestants in Russia was voted. Other resolutions related to the appointment of committees in all the parishes to look after contributions to the American Association; declared confidence in the wisdom and integrity of the officers and directors of the association; and commended the Young People's Religious Union, recognizing in it "the means of guiding and expressing the religious life of our young people, and a vital help to the work of our churches." A message of greeting was sent to the Universalist General Convention, which was about to meet in Boston; a proposal of the American Unitarian

Association for the appointment of a Conference Committee to consider plans of closer co-operation between the two denominations was approved; and a fraternal delegation was appointed to visit the Universalist Convention and convey to it the assurance of the good will of the Unitarian Conference.

British Unitarians.—The anniversary meetings of the British Unitarians began with that of the Sunday-school Association, May 23. Mr. John Dendy, of Manchester, presided and delivered the opening address on the subject of The Sunday-school Teacher as a Social Reformer. The statistical report showed an increase of Sunday schools, teachers, and pupils, the number of the latter being upward of 34,000. The income and expenditure for the year had nearly balanced at about £1,263. An effort had been successfully made to diffuse the publications of the association more widely in the schools.

The Essex Hall Lecture was delivered by the Rev. P. H. Wickford, upon Mediævalism and Modern Thought.

The annual report of the British and Foreign Unitarian Association gave the total income for the year as having been £4,816. The expenditure included grants of money and books to congregations and ministers amounting to £2,632. Bequests had been received severally of £1,000 and £2,720, besides others of smaller amounts. Among the chief features of the year's work had been the preaching by the Rev. Stopford Brooke at various churches throughout the country. Special endeavors had been made to increase the attention paid to the religious education of young people. A missionary had been sent to India to fraternize and advise with the theists of the Brahmo Somaj, and to diffuse Unitarian Christian teaching, especially in the university centers. Resolutions were passed disapproving the issue of Sunday editions of daily newspapers, commending the International Conference on disarmament, and condemning the action of the Liverpool School Board in adopting the Evangelical Free Church Catechism. The Central Postal Mission reported concerning the work which it with affiliated societies was doing by means of advertising, lending literature, and corresponding with religious inquirers. More than 1,000 names of correspondents were on its books. These correspondents were to be found in many lands, including New Zealand, Cape Colony, Canada, Newfoundland, India, Greece, Italy, China, Cairo, and Jerusalem.

UNITED STATES OF AMERICA, a federal republic in North America. The legislative power is vested in the Congress, consisting of the Senate and the House of Representatives. There are 90 Senators, 2 from each State, elected by the State Legislatures for six years, one third being renewed every two years. The House of Representatives has 357 members, elected by the ballots of all the qualified voters of the several States, which are divided into congressional districts containing each approximately 173,900 inhabitants at the census of 1890. The executive power is vested in the President, who is commander in chief of the military and naval forces, and has a power of veto over acts of Congress, which can be overcome by a two-thirds vote of each house. The Vice-President is President of the Senate, and in case of the death, removal, or resignation of the President he succeeds the latter for the remainder of the term. In case of the death or disability of both President and Vice-President, the Secretary of State becomes acting President, and after him the other members of the Cabinet in their order.

The Senate can remove the President after a trial on articles of impeachment presented by the House of Representatives, and other executive officers can be removed for unconstitutional actions by the same procedure. The President nominates the officers of the Cabinet, who are the heads of the eight administrative departments, and all other superior officials, but his appointments must be confirmed by the Senate. The President and Vice-President are elected by a college of electors, who are chosen by each State in the manner that the Legislature prescribes, which is in almost every State by popular suffrage, their number being equal to the sum of the Senators and Representatives of the State. It is the custom of political parties to nominate in national convention their candidates for the presidency and vice-presidency, and for the electors, who are chosen by each State on a collective ticket, to vote solidly for the candidates designated by their parties beforehand. Thus the election of the President and Vice-President has come to be in fact, though not in form, by the direct vote of the nation. The term of the presidency is four years, and elections are held on the Tuesday following the first Monday in November of every leap year. The President-elect is sworn into office on March 4 of the year following. The President for the term ending March 4, 1901, is William McKinley, of Ohio, and the Vice-President was Garret A. Hobart, of New Jersey. The Cabinet at the beginning of 1899 was composed as follows: Secretary of State, John Hay, of the District of Columbia; Secretary of the Treasury, Lyman J. Gage, of Illinois; Secretary of War, Russell A. Alger, of Michigan; Attorney-General, John William Griggs, of New Jersey; Postmaster-General, Charles Emory Smith, of Pennsylvania; Secretary of the Navy, John Davis Long, of Massachusetts; Secretary of the Interior, Ethan Allen Hitchcock, of Missouri; Secretary of Agriculture, James Wilson, of Iowa. Elihu Root, of New York, was appointed Secretary of War on the resignation of Mr. Alger.

Area and Population.—The area of the United States, including 3 Territories represented by Delegates in Congress and the Indian Territory, is 3,025,600 square miles. Alaska has an area estimated at 531,400 square miles. The population at the census of 1890 was 62,622,250, exclusive of 179,321 in the Indian Territory and 30,329 in Alaska. The total population was estimated, including these Territories, at 77,803,000 at the beginning of 1899. Hawaii, with an area of 6,740 square miles and a population of 109,020, was annexed in 1898, and by the treaty of peace concluded on Dec. 10, 1898, Spain ceded to the United States Porto Rico, with an area of 3,670 square miles and a population of 798,566; Guam, with an area of 370 square miles and 9,172 inhabitants; and the Philippine Islands, including the Sulu Archipelago, having an area of about 115,300 square miles and a population estimated at 9,000,000. Including these new dependencies, the total area subject to the legislation of the Congress of the United States is 3,683,080 square miles, with a total population of nearly 88,000,000.

Immigration.—Of 229,299 immigrants into the United States in 1898, the number that came through the port of New York was 178,748; through Boston, 12,271; through Baltimore, 10,735; through Philadelphia, 8,360; through San Francisco, 2,274; through other ports, 16,911, including 10,737 who passed through Canada. The immigration from British America and Mexico is not reported. Of the total number as above given, 52,531 were laborers, 23,656 servants, 16,243 farm-

ers, 2,904 carpenters, 3,826 tailors, 3,229 shoemakers, 1,152 blacksmiths, 1,604 miners, 2,031 clerks. The number of professional men was 1,342; of skilled laborers, 33,145; of other occupations, 104,238; occupation not stated, 149; of no occupation, including women and children, 90,425. The total number of immigrants in the year ending June 30, 1899, was 311,715, of whom 98,730 were Italians, 32,345 Irish, 28,466 Poles, 26,631 Germans, 23,249 Scandinavians, 15,838 Slovaks, and 10,712 English. The total number of European immigrants was 297,349; from Asia, 8,972; from Africa, 51; from all other sources, 5,343. The total immigration was divided as to sex into 195,277 males and 116,438 females. The number of Chinese of the exempt classes admitted during the year was 3,925; the number refused admission was 950. The laws and regulations regarding immigration were extended to Cuba, Porto Rico, and the Philippines.

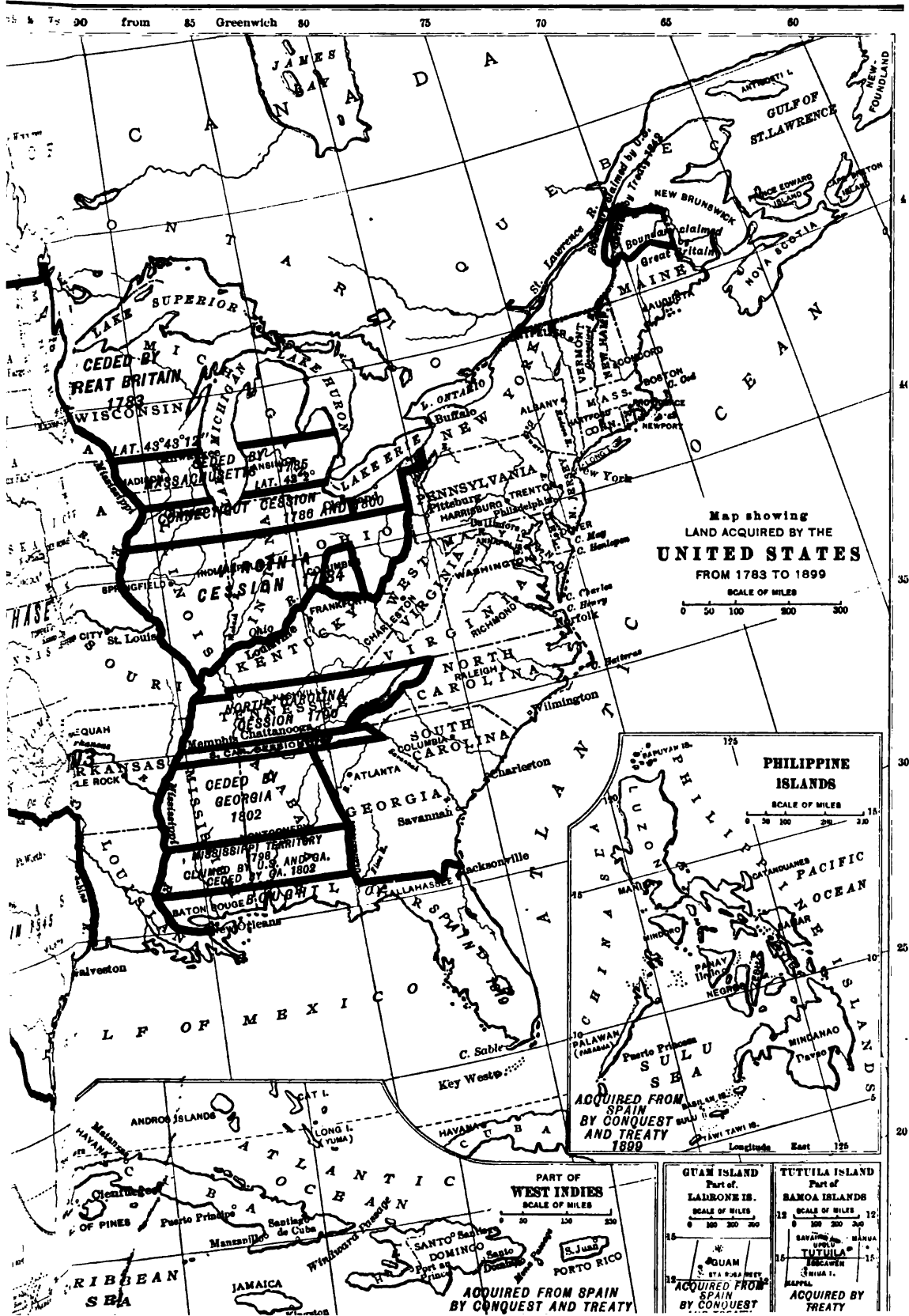
The Army.—The authorized strength of the regular army under the act of March 4, 1899, is 65,000 enlisted men. The President was further authorized to raise a volunteer force of 35,000 men for the term of two years and four months, or until July 1, 1901, at which period the volunteer force shall be discharged, or earlier if the necessity therefor ceases, and the regular army be reduced to its former strength of 26,610 men. The regular army on July 1, 1899, numbered 581 general officers, staff officers, medical officers, and officers of engineers and the Signal Corps, with 2,093 men; 1,177 infantry officers and 34,450 men; 472 cavalry officers and 12,340 men; 357 artillery officers and 11,070 men; 752 men in the Engineer Corps; 720 men in the Signal Service; and 75 Indian scouts. The army is organized in 25 infantry regiments, including 2 of colored troops, each composed of 3 battalions of 4 companies; 10 regiments of cavalry, including 2 colored regiments, each having 3 sections of 4 troops of 100 men; 7 regiments of artillery of 14 batteries, including 2 mounted batteries of 6 pieces; 1 battalion of engineers, having 5 companies; a medical corps, a detachment of mechanicians, and a detachment at the Military Academy. The infantry are armed with the Krag-Jørgensen rifles of 30 millimetres caliber, the mounted artillery with breech-loading guns of the caliber of 3.2 inches.

The volunteer army, commanded by 4 major generals and 17 brigadier generals, consisted of 27 infantry regiments, including 2 colored regiments, and 3 regiments of cavalry, numbering 1,200 officers and 31,416 men in the infantry and 50 officers and 1,234 men in the cavalry, besides 14 officers and 400 men in a native battalion in Porto Rico.

The organized militia of the States consists of 9,376 officers and 115,627 men. There are 10-149,184 able-bodied men in the country.

The Navy.—The navy of the United States at the end of 1898 comprised 4 first-class battle ships (the Iowa, of 11,340 tons, and the Indiana, Massachusetts, and Oregon, of 10,288 tons); the second-class battle ship Texas, of 6,315 tons; the armored cruisers Brooklyn and New York; the protected cruisers Columbia and Minneapolis, of 7,375 tons, and Olympia, of 5,870 tons; the double-turret monitor Puritan, of 6,060 tons; the barbet monitor Monterey; the protected cruisers Chicago, Baltimore, Philadelphia, Newark, San Francisco, Charleston, New Orleans, Albany, Cincinnati, Raleigh, Atlanta, and Boston, of 3,000 to 4,500 tons; the double-turret monitors Miantonomoh, Amphitrite, Monadnock, and Terror, of 3,990 tons; the cruiser Lancaster, of 3,250 tons;





the third-rate cruisers *Hartford*, *Mayflower*, *Mohican*, *Adams*, *Alliance*, *Essex*, *Enterprise*, *Alert*, and *Ranger*; the ram *Katahdin*; the single-turret monitors *Ajax*, *Canonicus*, *Mahopac*, *Manhattan*, *Comanche*, *Catskill*, *Jason*, *Lehigh*, *Montauk*, *Nahant*, *Nantucket*, and *Passaic*; the unprotected cruisers *Detroit*, *Montgomery*, and *Marblehead*; the dispatch boat *Dolphin*; the steel gunboats *Bennington*, *Concord*, *Yorktown*, *Castine*, and *Machias*; the iron gunboat *Topeka*; the composite gunboats *Annapolis*, *Vicksburg*, *Wheeling*, *Marietta*, *Newport*, and *Princeton*; the light-draught gunboats *Wilmington*, *Helena*, *Nashville*, and *Monocacy*; the dynamite gunboat *Vesuvius*; the training ship *Fern*; the fourth-rate cruiser *Michigan*; the gunboats *Petrel*, *Bancroft*, and *Pinta*; and the torpedo boats *Cushing*, *Ericsson*, *Foote*, *Rodgers*, *Winslow*, *Porter*, *Dupont*, *Morris*, *Talbot*, *Gwin*, *Mackenzie*, *McKee*, *Manly*, *Somers*, and *Stiletto*.

The vessels under construction were the first-class battle ships *Maine*, *Missouri*, and *Ohio*, of 12,500 tons, and *Kearsarge*, *Kentucky*, *Illinois*, *Alabama*, and *Wisconsin*, of 11,525 tons; the monitors *Arkansas*, *Connecticut*, *Florida*, and *Wyoming*; a gunboat; the destroyers *Bainbridge*, *Barry*, *Chauncey*, *Dale*, *Decatur*, *Hopkins*, *Hull*, *Lawrence*, *Macdonough*, *Paul Jones*, *Perry*, *Preble*, *Stewart*, *Truxton*, *Whipple*, and *Worden*, of 420 to 435 tons, engined to steam 28 to 30 knots; the submarine torpedo boat *Plunger*; and the torpedo boats *Rowan*, *Dahlgren*, *T. A. M. Craven*, *Farragut*, *Davis*, *Fox*, *Stringham*, *Goldsborough*, *Bailey*, *Bagley*, *Barney*, *Biddle*, *Blakely*, *De Long*, *Nicholson*, *O'Brien*, *Shubrick*, *Stockton*, *Thornton*, *Tingey*, and *Wilkes*. Including these, the navy numbers 12 first-class battle ships, 1 of the second class, 2 armored cruisers, 1 armored ram, 6 double-turret monitors, 4 iron and 13 steel single-turret monitors, 13 protected cruisers, 2 protected wood-sheathed cruisers, 3 unprotected cruisers, 9 gunboats, 3 light-draught gunboats, 6 composite gunboats, 1 training ship, 1 dynamite gun vessel, 1 dispatch vessel, 16 torpedo-boat destroyers, and 35 steel torpedo boats; total, 129 effective vessels, in addition to which there are 5 iron cruising vessels, 1 submarine torpedo boat, 1 wooden torpedo boat, 8 wooden cruising vessels, 6 sailing vessels, 14 tugs, 11 wooden steamers and 6 sailing vessels unfit for service, and 8 vessels captured in the Spanish war, making the total number of vessels in the navy 189.

The first-class battle ships *Georgia*, *New Jersey*, and *Pennsylvania* were authorized in 1899, also the armored cruisers *California*, *Nebraska*, and *West Virginia*. The new steel gunboats *Chattanooga*, *Cleveland*, *Denver*, *Des Moines*, *Galveston*, and *Tacoma* will have a displacement of 3,200 tons, engines of 4,700 horse power, capable of making 16 knots, 10 5-inch rapid-firing guns in the main battery, and a secondary armament of 8 6-pounders, 2 1-pounders, and 2 Colt automatic guns. The number of large, swift, and powerful armored cruisers of great coal endurance is disproportionate to the rest of the navy, and in the programme recommended to Congress the Secretary of the Navy has proposed the construction of 12 sheathed and coppered gunboats of 900 tons in addition to 3 new armored cruisers and 3 protected cruisers. The armored cruisers will have a displacement of about 13,000 tons, and will carry the heaviest armor and the most powerful ordnance for vessels of their class and have the highest practicable speed and great radius of action. The protected cruisers are to have a displacement of 8,000 tons, to carry powerful batteries, and to have high speed combined with coal endurance.

There were 1,340 commissioned officers and 177 warrant officers on the active list of the navy at the end of 1899. The enlisted force of the navy on June 30, 1899, numbered 4,370 petty officers and 10,131 men; total, 14,501. The number of apprentices was 2,221. The marine corps consists of 201 officers and 6,000 men.

Pensions.—The number of pensioners on the roll on June 30, 1899, was 991,519, showing a decrease during the year of 2,195. There were 316,834 invalids, 653 nurses, and 90,608 widows and dependent children drawing army pensions, and 4,721 invalids and 2,293 widows and dependent children drawing navy pensions, under the general pension act; and 405,987 invalids and 124,127 widows and dependents connected with the army, and 14,925 invalids and 6,139 widows and dependents connected with the navy were drawing pensions under the act of June 27, 1890. The number of claims allowed in the course of 1899 was 1,975 for invalids and 3,460 for widows, etc., making a total of 1,616,391 since 1861. The sum disbursed during the year was \$139,482,696; the total disbursements since 1861 have been \$2,423,592,488. There was 1 pensioner of the War of 1812 surviving on June 30, 1899; of widows of soldiers of 1812 there were 1,998. The pensioners of the war with Mexico numbered 9,204; widows, 8,175. Survivors of Indian wars numbered 9,204; widows, 177. Pensions for the war with Spain were granted to 123 invalids and 177 widows.

Public Lands.—The area of the public lands remaining vacant and subject to entry and settlement on July 1, 1899, was 929,308,068 acres, of which 318,205,724 acres had been surveyed. Of the unsurveyed lands 359,492,760 acres were in Alaska, and the greater part of the remainder consisted of barren mountain and desert. Not included in these figures are military and Indian reservations, reservoir sites and timber reservations, and tracts covered by selections, railroad grants, and unadjudicated claims, a part of which may be added to the public domain. The receipts of the General Land Office in 1899 were \$3,070,137, of which \$2,594,690 were from disposal of public land, \$442,914 from disposal of Indian land, and \$890,702 from fees and commissions.

The Patent Office.—The number of applications for patents in the calendar year 1898 was 33,915; for design patents, 1,843; for reissues, 84; for registration of trade-marks, 1,796; for registration of labels, 316; for prints, 50; number of caveats filed, 1,695; total, 39,683. The number of patents granted, including designs and reissues, was 22,267; of trade-marks registered, 1,238; of labels, 200; of prints, 35; total, 23,740. There were 4,368 patents withheld for nonpayment of fees. The number of patents that expired was 15,548. The total number of applications since 1837 has been 1,073,950; total number of caveats filed, 109,074; total number of original patents granted, including designs, 623,535. The receipts of the Patent Office from its first establishment till the end of 1898 were \$1,137,734; expenses, \$1,136,196.

Commerce and Production.—The number of farms in the United States in 1890 was 4,564,651, having a total acreage of 623,218,619 acres. The estimated value of farm products is \$2,460,107,454 per annum. The forest area of the United States, exclusive of Alaska, is estimated at 699,500,000 acres, or 1,094,514 square miles, being about 36.5 per cent. of the total land area. About 2,250,000,000 cubic feet of lumber are consumed annually in building and manufactures in the United States, 27,000,000 cubic feet are required for railroad ties, 30,000,000 cubic feet for fen-

cing, 1,000,000,000 cubic feet for miscellaneous purposes, and 15,000,000,000 cubic feet of wood are burned for fuel, making the total estimated domestic consumption 18,307,000,000 cubic feet. The average annual loss from forest fires is estimated at \$20,000,000. Under the act of 1891 the United States Government set apart 17,968,440 acres of the public lands in Colorado, New Mexico, California, Arizona, Wyoming, Oregon, and Washington as perpetual forest reservations previous to 1897. In that year 13 additional reserves were proclaimed, with a total area of 25,683,840 acres; and since then tracts in Arizona, New Mexico, South Dakota, Montana, Utah, Wyoming, and California have been added, making the total area of national forest reservations 46,425,527 acres. New York and Pennsylvania have State reservations.

The Indian corn crop of the United States for 1898 amounted to 1,924,185,000 bushels; wheat, 675,149,000 bushels; oats, 730,905,000 bushels; barley, 55,792,000 bushels; rye, 25,657,000 bushels; buckwheat, 11,722,000 bushels. In 1897 there were 80,095,051 acres under corn, producing 1,902,967,952 bushels, valued at \$501,072,952; 39,465,066 acres under wheat, producing 530,149,168 bushels, valued at \$428,547,121; and 25,730,375 acres under oats, producing 698,767,809 bushels, valued at \$147,974,719. The hay crop in 1898 was estimated at 60,377,000 tons; potato crop, 192,306,000 bushels. The annual production of hops is about 2,000,000,000 pounds; of peanuts, 2,600,000 bushels. The area planted to tobacco in 1896 was estimated at 595,000 acres, producing 403,004,000 pounds, valued at \$24,258,000. The cotton crop of 1899 was 11,235,383 bales, averaging 487 pounds. The exports to Europe in the year ending June 30, 1899, were 7,146,009 bales; consumption of the United States and Canada, 4,030,448 bales; total, 11,176,457 bales. There were 17,938,300 spindles in operation in the United States in 1899, consuming 3,553,000 bales of 500 pounds. The production of cane sugar in 1898 was estimated at 707,951,878 pounds; of molasses, 29,335,441 gallons. The consumption of sugar was 1,997,344 tons, of which 1,640,637 tons were the refined product of imported sugar, 317,447 tons refined from domestic cane sugar, 5,000 tons maple sugar, 33,960 tons domestic beet sugar, and 300 tons sorghum and other domestic sugar. The production of distilled spirits in 1898 was 83,668,411 gallons, of which 13,439,459 gallons were Bourbon whisky, 8,818,240 gallons rye whisky, 11,672,795 gallons alcohol, 1,340,547 gallons rum, 1,267,580 gallons gin, 20,613,205 gallons pure neutral spirits, and 2,906,198 fruit brandy. The consumption of domestic brandy in 1898 was 1,411,448 gallons; of other domestic spirits, 79,207,887 gallons; of imported spirits, 916,549 gallons. The production of malt liquors for the year ending June 30, 1899, was 36,581,114 barrels. The production of wine is over 24,000,000 gallons a year. The consumption of domestic wines in 1898 was 20,567,317 gallons; of imported wines, 3,113,633 gallons. The consumption of domestic beer, ale, and porter was 1,160,651,991 gallons; of imported, 2,457,348 gallons. The imports of bottled malt liquors in 1899 were 869,957 gallons; in barrels, 1,927,470 gallons. The imports of spirituous liquors were 1,389,352 gallons; of still wines in casks, 2,240,387 gallons; of still wines in bottles, 247,464 dozen; of sparkling wines, 351,112 dozen.

The total value of the mineral products of the United States for 1898 was \$697,847,802, of which sum \$344,079,986 represent metallic products, \$352,767,802 nonmetallic products, and \$1,000,000 the estimated value of products unspecified. The

pig iron product was 11,773,934 long tons, valued at \$116,557,000; iron ore, 19,278,369 long tons, value at the mines \$22,788,069. The product of silver was 54,438,000 troy ounces, of the coining value of \$70,384,485 and the commercial value of \$32,118,420. The gold product was 3,118,398 troy ounces, value \$64,463,000. Of copper 528,375,591 pounds, including some made from imported pyrites, were produced, having an export value at New York of \$61,849,132. The yield of lead was 231,269 tons, having an export value of \$17,345,175; of zinc, 115,399 tons, value \$10,385,910. The product of quicksilver was 31,092 flasks, its value in San Francisco \$1,186,627. The aluminum produced amounted to 5,200,000 pounds, worth in the Pittsburgh market \$1,716,000. The product of antimony was 1,120 tons, value \$184,050; of nickel, 13,411 pounds, value \$4,694; of platinum, 225 troy ounces, value \$1,913. Of the total value of nonmetallic products coal stands for \$208,000,850. The output of Pennsylvania anthracite was 47,663,075 long tons, valued at \$75,414,537; of bituminous coal, 166,592,023 short tons, valued at \$132,586,313. These figures do not include brown coal and lignite nor the anthracite coal mined outside of Pennsylvania.

The product of petroleum was 55,354,233 barrels of 42 gallons, valued at \$44,183,359; the value of natural gas, \$14,750,000. The value of the stone quarried was \$36,607,264; value of brick clay, \$9,000,000; of other clay, \$1,000,000. The value of clay products was \$71,470,689. The production of cement was 11,968,708 barrels; value, \$9,781,501. The limestone used for iron flux was 5,275,819 long tons, valued at \$2,638,000. The phosphate rock taken out amounted to 1,308,885 long tons; value, \$3,453,460. The salt product was 17,612,634 barrels of 280 pounds; value, \$6,212,554. The quantity of mineral waters sold was 28,853,464 gallons; value, \$8,051,833. The product of zinc white was 33,000 tons, value \$2,310,000; of borax, 16,000,000 pounds, value \$1,120,000; of gypsum, 291,638 tons, value \$755,280; of mineral paints, 58,850 tons, value \$694,856; of fibrous talc, 54,356 tons, value \$410,430; of asphaltum, 76,337 tons, value \$675,649; of soapstone, 22,231 tons, value \$287,112; of pyrite, 190,150 long tons, value \$577,731; of barytes, 31,306 long tons, value \$108,339; of feldspar, 12,000 long tons, value \$32,395; of fluorspar, 7,675 short tons, value \$63,050; of flint, 19,130 long tons, value \$42,670; of bauxite, 25,149 long tons, value \$75,437; of fuller's earth, 14,860 short tons, value \$106,500; of marls, 60,000 tons, value \$30,000; of infusorial earth and tripoli, 2,733 tons, value \$16,691; of pumice stone, 600 tons, value \$13,200; of magnesite, 1,263 tons, value \$19,075; of asbestus, 605 tons, value \$10,300; of sulphur, 1,200 tons, value \$32,960.

The value of grindstones produced was \$489,769; of oilstones, \$180,738; of millstones, \$25,934; the quantity of corundum and emery, 4,064 tons, valued at \$275,064; the quantity of abrasive garnet, 2,967 tons, valued at \$86,850. The product of mica was 129,520 pounds of sheet and 3,999 tons of scrap, valued at \$103,534 and \$27,564 respectively. Of bromine 486,979 pounds were obtained, value \$126,614; of monazite, 230,776 pounds, value \$12,462; of cobalt oxide, 7,848 pounds, value \$11,772; of rutile, 140 pounds, value \$700. The product of crystalline graphite was 2,360,000 pounds, or amorphous 890 tons; total value, \$75,200. The quantity of manganese ore mined was 15,957 long tons, value \$129,185. The total value of precious stones was \$160,920.

The growth of the iron and steel industry has placed the United States in the van of the ex-

porting nations. In less than twenty years the balance with Great Britain has so changed that, instead of importing 1,500,000 tons from that country, the United States in 1898 exported more than 1,000,000 tons to the United Kingdom. Exports are also sent to other European countries—to Russia in large quantities on account of the great railroad development there—to Asia, and to Africa. The Siberian Railroad in its eastern portion has been built of American material and equipped with American rolling stock. The cost of Bessemer pig at Pittsburg has in this period been reduced by half, and steel rails, formerly imported at \$50 a ton, were quoted for export in 1898 at \$15 to \$17 a ton.

The estimated number of sheep in the United States on Jan. 1, 1899, was 39,114,453, valued at \$107,698,000. The estimated wool clip in 1899 was 272,191,330 pounds; imports, 76,736,209 pounds; exports, 14,095,335 pounds, of which only 1,683,419 pounds were domestic wool; retained for home consumption, 334,832,204 pounds. A third or more of the butter and cheese of the world is made in the United States. The exports of butter in 1899 were 20,247,997 pounds; of cheese, 38,198,753 pounds. The number of hogs packed in 1899 was 29,791,000. The exports of bacon in 1898 were 650,108,933 pounds; of hams, 200,185,861 pounds; of pork, 100,357,363 pounds; of lard, 709,341,015 pounds; total, 1,659,996,202 pounds, of which 899,520,708 pounds went to Great Britain, 305,950,114 pounds to Germany, 102,421,995 pounds to Belgium, 96,331,113 pounds to the Netherlands, 42,785,483 pounds to Canada, 34,676,437 pounds to Cuba, 24,973,722 pounds to France, 12,772,738 pounds to the British West Indies, 12,211,972 pounds to Denmark, 11,781,097 pounds to Sweden and Norway, 10,922,596 pounds to Hayti, 8,264,637 pounds to Porto Rico, and smaller quantities to Venezuela, Mexico, Newfoundland, British Guiana, Columbia, Brazil, and other countries.

The extraordinary exportations, only slightly less in value than in 1898, when they were swelled by high prices for grain and a strong demand, consequent upon short crops in Europe, together with a moderate increase in imports, make the total volume of trade in the year ending June 30, 1899, the largest in the history of American commerce. The foreign trade has more than doubled since 1870, the imports for 1899 being 60 per cent., the exports 212 per cent. greater. The value of imports per capita of the population has declined in this period from \$11.30 to \$9.15, while the exports per capita have grown from \$10.19 to \$16.12, a decrease on the one side of 20 per cent., an increase on the other of 58 per cent. There has been but little increase in the importation of manufactured articles, although population has doubled, nearly the whole increase being in articles for use in manufacturing and in foodstuffs that can not be produced in the United States. The imports of woolen goods and of manufactures of iron and steel are much smaller than thirty years ago, and the increase in cotton and silk stuffs, fibers, leather, and earthenware has been far below the increase in population. The exports of manufactures in 1899 were not only larger by \$48,000,000 than in any previous year, but formed a far larger percentage of the total exports than ever before. The exports of manufactures exceeded imports in 1898 for the first time, the excess being \$60,706,000, and in 1899 this excess grew to \$76,334,000. The increase of commerce with the tropical islands that had come into closer relations with the United States was very marked, indicating that these islands can

exchange for products of American growth and manufacture a considerable part of the tropical agricultural produce that forms a large proportion of the natural and necessary imports of the United States. The total value of merchandise imports into the United States in the year ending June 30, 1899, was \$697,148,489. The total value of domestic exports was \$1,203,931,222; of foreign exports, \$23,092,080; total exports, \$1,227,023,302, against \$1,231,482,330 in 1898, \$1,050,993,556 in 1897, \$882,606,938 in 1896, and \$807,538,165 in 1895. The total imports and exports were \$1,924,171,791 in 1899, \$1,847,531,984 in 1898, \$1,815,723,968 in 1897, \$1,662,331,612 in 1896, and \$1,539,508,130 in 1895. In 1890 the volume of trade was \$1,647,139,093; in 1885, \$1,319,717,084; in 1880, \$1,503,593,404; in 1875, \$1,046,448,147; in 1870, \$828,730,176. The excess of merchandise exports over imports in 1899 was \$529,874,813; the excess was \$615,432,676 in 1898, \$286,263,144 in 1897, and \$102,882,264 in 1896.

The values of the articles imported in the year ending June 30, 1899, are given in the following table:

	Value.
Agricultural implements.....	\$4,852
Animals:	
Cattle, free.....	95,353
Cattle, dutiable.....	2,925,009
Horses, free.....	286,252
Horses, dutiable.....	284,798
Sheep, free.....	46,132
Sheep, dutiable.....	1,153,949
All other, including fowls.....	81,559
Antimony ore.....	40,822
Antimony, regulus and metal.....	179,573
Articles made in the United States returned.....	3,541,321
Articles specially imported.....	681,216
Art works, the production of Americans.....	418,867
Art works, other.....	2,040,121
Asbestos.....	286,386
Asphaltum, crude.....	224,420
Bark, hemlock.....	62,554
Beads and bead ornaments.....	1,085,068
Beeswax.....	109,987
Beverages:	
Ginger ale.....	268,883
All other.....	86,698
Bismuth.....	204,473
Blacking.....	58,680
Bolting cloths.....	207,480
Bones, horns, and hoofs.....	704,969
Bones and horns, manufactures of.....	181,718
Books, maps, engravings, etc., free.....	1,689,892
Books, maps, engravings, dutiable.....	1,893,509
Brass, and manufactures of.....	55,185
Breadstuffs:	
Barley.....	53,696
Corn.....	1,618
Oats.....	4,433
Oatmeal.....	17,740
Rye.....	932
Wheat.....	1,407,625
Wheat flour.....	4,067
All other, and preparations of, free.....	208,615
All other, and preparations, dutiable.....	861,000
Bristles, crude.....	12,399
Bristles, sorted or prepared.....	1,445,853
Brushes.....	890,639
Burr stones.....	19,968
Buttons.....	451,331
Cement.....	2,776,386
Chalk.....	47,219
Chemicals, drugs, and dyes:	
Alizarin and alizarin colors.....	700,485
Argols, or wine lees.....	1,914,460
Barks, cinchona, etc.....	846,576
Coal-tar colors and dyes.....	97,563
Cochineal.....	23,207
Logwood.....	546,274
Other dyewoods.....	222,967
Extracts of dyewoods.....	219,192
Glycerin.....	1,024,131
Gum arabic.....	116,382
Camphor, crude.....	822,100
Copal, cowrie, and dammar.....	1,844,779
Gambler, or terra japonica.....	754,497
Gum chicle.....	863,051
Shellac.....	1,397,695
All other gums.....	1,070,321
Indigo.....	1,698,583
Licorice root.....	1,566,880
Lime, chloride of.....	1,159,271

	Value.		Value.
Chemicals, drugs, and dyes:		Fruits and nuts:	
Mineral waters.....	\$596,337	Bananas.....	\$5,665,589
Opium, crude.....	1,223,951	Currants.....	798,357
Opium, prepared for smoking, etc.....	829,308	Dates.....	324,087
Potash, chloride of.....	174,302	Figs.....	356,762
Potash, muriate of.....	1,509,915	Lemons.....	4,398,004
Potash, nitrate of.....	406,818	Oranges.....	1,097,595
Potash, all other.....	892,551	Plums and prunes.....	63,574
Quinia, sulphate, alkaloids, or salts.....	949,104	Raisins.....	282,400
Soda, caustic.....	252,397	Prepared or preserved.....	1,030,644
Soda, nitrate of.....	2,054,806	All other, free, including nuts.....	543,361
Sol soda.....	30,905	All other fruits.....	1,036,291
Soda ash.....	310,743	Almonds.....	1,222,537
Soda, all other salts of.....	317,083	Cocoanuts.....	625,799
Sulphur, or crude brimstone.....	2,370,449	All other nuts.....	879,166
Sumac, ground.....	183,136	Furs and fur skins, undressed.....	5,645,731
Vanilla beans.....	1,235,413	Furs, manufactured.....	5,215,531
All other chemicals, drugs, etc.....	5,125,050	Glass and glassware:	
Chicory root, unground.....	2,353	Bottles, vials, carboys, and jars.....	371,394
Chicory root, ground or prepared.....	11,061	Cylinder, crown, and common window glass.....	1,275,184
Chocolate.....	201,439	Cylinder and crown glass, polished.....	521,957
Clays or earths.....	786,514	Cylinder and crown glass, silvered.....	632
Clocks and watches		Plate glass, fluted, rolled, or rough.....	9,528
Clocks, and parts of.....	274,023	Plate glass, cast, polished.....	233,190
Watches, and parts of.....	1,061,959	Plate glass, cast, polished, silvered.....	419
Coal and coke:		Glass plates or disks for optical instruments.....	119,832
Coal, anthracite.....	2,694	All other.....	1,771,534
Coal, bituminous.....	3,595,793	Glue.....	479,450
Coke.....	172,540	Grease, free.....	426,171
Cocoa, or cacao, crude, and shells.....	5,084,703	Grease, dutiable.....	260,508
Cocoa, prepared.....	295,413	Gunpowder and explosives:	
Coffee.....	55,375,470	Gunpowder.....	32,394
Coffee substitute.....	36,370	Firecrackers.....	182,990
Coins, old, and other antiquities.....	8,590	Other explosives.....	160,630
Collodion, manufactures of.....	249,619	Gut, unmanufactured.....	15,905
Copper, and manufactures of:		Hair, unmanufactured.....	1,814,964
Ore and regulus.....	1,964,303	Hair, manufactures of.....	150,049
Pigs, bars, ingots, old, etc.....	14,793,695	Hats and bonnets, materials for.....	1,807,356
Manufactures of.....	39,058	Hats, bonnets, and hoods.....	619,370
Cork bark, unmanufactured.....	1,147,892	Hay.....	115,409
Corks and cork manufactures.....	249,565	Hide cuttings and glue stock.....	708,968
Cotton, and manufactures of:		Hides and skins:	
Cotton, unmanufactured.....	5,013,146	Hides of cattle.....	13,821,946
Waste or flocks.....	210,856	All other.....	9,877,771
Cloth, not bleached, dyed, or printed.....	107,023	Honey.....	51,599
Cloth, bleached, dyed, colored, or printed.....	6,649,014	Hope.....	591,755
Clothing and wearing apparel.....	1,027,306	Household and personal effects of immigrants.....	3,113,107
Knit goods, hose, etc.....	4,335,969	India rubber and gutta-percha:	
Laces, edgings, embroideries, etc.....	14,550,015	Gutta-percha.....	167,577
Thread, yarn, warps, etc.....	849,819	India rubber.....	31,707,630
All other manufactures.....	4,535,998	Gutta-percha manufactures.....	115,582
Diamond dust or bort.....	415,479	India-rubber manufactures.....	379,309
Earthen, stone, and china ware:		Scraps and refuse.....	468,044
Not decorated.....	1,012,889	Ink and ink powders.....	72,428
Decorated or ornamented.....	6,270,105	Iron and steel, and manufactures of:	
All other.....	321,025	Iron ore.....	401,595
Eggs.....	21,300	Pig iron.....	711,088
Emery ore.....	138,891	Scrap iron and steel.....	65,185
Emery, grains and ground.....	27,992	Bar iron.....	907,495
Fans, except palm leaf.....	873,095	Bars, railway, of iron, steel, or part steel.....	30,253
Feathers and millinery ornaments:		Hoop, band, or scroll.....	3,229
Feathers and downs, crude.....	1,768,099	Steel ingots, blooms, billets, and bars.....	1,068,847
Feathers, dressed, colored, or manufactured.....	828,457	Sheet, plate, and taggers iron and steel.....	178,892
Feathers, flowers, and leaves, artificial.....	1,927,633	Tin plates,terneplates, and taggers tin.....	2,613,564
Felt, adhesive.....	23,769	Wire, rods.....	730,968
Fertilizers:		Wire, and articles made from.....	848,080
Guano.....	43,610	Anvils.....	82,806
Phosphates, crude.....	489,226	Chains.....	21,006
All other.....	959,183	Cutlery.....	1,189,916
Fibers and textile grasses, and manufactures of:		Flies, file blanks, rasps.....	42,780
Flax, and tow of.....	1,306,530	Firearms.....	768,573
Hemp, and tow of.....	477,108	Machinery.....	1,630,542
Isle or Tampico fiber.....	264,177	Needles.....	407,746
Jute and jute butts.....	2,296,169	Shotgun barrels, rough-bored.....	136,871
Manila.....	6,311,475	All other manufactures.....	1,210,827
Sisal grass, free.....	9,311,377	Ivory:	
All other unmanufactured fibers.....	513,247	Animal.....	690,920
Bagging and gunny cloth for cotton.....	518,015	Vegetable.....	86,479
Jute bags.....	994,749	Manufactures of.....	43,623
Cables, cordage, and twine.....	75,130	Jewelry and precious stones:	
Carpets and carpeting.....	74,078	Miners', engravers', and glaziers' diamonds.....	3,718,194
Coir yarn.....	85,998	and watch jewels.....	3,293,829
Fabrics woven of single jute yarn.....	8,137,519	Jewelry and gold and silver manufactures.....	10,638,390
Handkerchiefs.....	1,637,712	Lead, and manufactures of:	
Oilcloths.....	216,210	Pigs, bars, old, and in ore.....	2,774,086
Twine, binding.....	182,042	Manufactures of.....	10,575
Yarns or threads.....	406,809	Leather, and manufactures of:	
All other manufactures.....	12,790,363	Bend or belting and sole leather.....	52,698
Fish:		Calfskins, tanned, dressed, patent, or enamelled.....	259,846
Salmon.....	113,360	Skins for morocco.....	2,465,332
All other fresh.....	903,293	Upper leather and skins dressed and finished.....	2,470,841
Anchovies and sardines.....	1,152,951	Lime.....	53,066
Cod, haddock, etc., dried, salted, pickled, or smoked.....	426,414	Lithographic stones.....	76,092
Herring, dried or smoked.....	87,279	Malt, barley.....	4,447
Herring, pickled or salted.....	1,077,138	Malt liquors:	
Lobsters, canned or uncanned.....	730,460	In bottles or jugs.....	917,186
Mackerel, pickled or salted.....	1,108,027	In other coverings.....	570,682
Salmon, pickled or salted.....	41,415	Manganese ore and oxide.....	876,478
Fish bladders and fish sounds.....	61,176		
All other.....	321,572		

	Value.		Value.
Marble and stone:		Toys	\$2,265,542
Marble, and manufactures of	\$680,533	Umbrellas, parasols, and sunshades	88,127
Stone, and manufactures of	203,319	Varnishes	79,461
Matches	128,873	Vegetables:	
Matting for floors, of round or split straw	2,651,690	Beans and dried peas	165,890
Meerschaum, crude	35,516	Onions	499,530
Metals and metal compositions:		Potatoes	224,391
Bronze manufactures	558,479	Pickles and sauces	352,022
All other, not elsewhere specified	2,559,841	Others in their natural state	312,673
Mineral substances not elsewhere specified	272,433	Others preserved or prepared	554,302
Moss, seaweed, etc.	31,192	Vinegar	23,534
Musical instruments, and parts of	1,058,494	Wines:	
Nickel ore and matte	1,183,924	Champagne and other sparkling	3,668,791
Oil cake	9,553	Still wines in casks	1,573,573
Oils:		Still wines in other coverings	1,347,843
Whale and fish	198,110	Wood, and manufactures of:	
Other animal	1,599	Mahogany	1,244,921
Mineral	1,791,211	Other cabinet woods	848,355
Olive salad	1,080,250	Logs and round timber	1,766,994
Other vegetable, fixed or expressed, free	1,907,933	Timber, hewed and sawed	18,088
Other vegetable, fixed or expressed, dutiable	611,234	Boards, planks, and other sawed lumber	4,200,166
Volatile or essential and distilled, free	1,281,233	Shingles	627,636
Volatile and distilled, dutiable	309,994	Other lumber	937,129
Paints, pigments, and colors	1,307,440	All other unmanufactured, free	1,973,221
Palm-leaf fans	44,510	All other unmanufactured, dutiable	30,110
Palm leaf, other manufactures of	9,411	Cabinet ware or house furniture	315,611
Paper, and manufactures of:		Wood pulp	671,506
Lithographic labels and prints	799,475	All other manufactures	1,633,065
Parchment papers	55,453	Wools, and hair of camel, goat, alpaca:	
All other	2,335,651	Clothing wool	1,948,954
Paper stock: Rags	805,545	Combing wool	587,081
All other	1,808,329	Carpet wool	5,738,832
Pencils, lead, and pencil leads	197,405	Carpet and carpeting	1,759,566
Pencils, slate	13,235	Clothing and wearing apparel	333,666
Perfumeries, cosmetics, and toilet preparations	514,620	Cloths	3,909,466
Pipes and smokers' articles	251,002	Dress goods	5,905,548
Plants, trees, shrubs, and vines	5,019	Knit fabrics	625,733
Plaster of Paris, ground	305,084	Rags, rags, shoddy, and wastes	70,234
Platinum	1,193,473	Shawls	55,331
Platinum vases, retorts, etc.	33,651	Yarns	109,671
Plumbago	1,051,859	All other manufactures	554,354
Provisions:		Zinc and spelter in blocks or pigs, and old	99,004
Meats and meat extracts	368,845	Zinc and spelter, manufactures of	16,637
Other meat products	109,647	All other free articles	1,679,535
Butter	8,933	All other dutiable articles	1,455,813
Cheese	1,568,133		
Milk	52,603	Total value of imports	\$607,148,499
Pumice and pumice stone	54,231		
Rennets	93,254		
Rice, free (from Hawaiian Islands)	135,635		
Rice, dutiable	8,017,038		
Rice flour and meal and broken rice	777,378		
Salt	558,922		
Sausages, Bologna	93,714		
Sausage casings	622,949		
Seeds:			
Linseed or flaxseed	87,602		
All other, free	749,058		
All other, dutiable	885,155		
Shell, unmanufactured	973,944		
Shell, manufactured	75,859		
Silk, and manufactures of:			
Cocoons	2,288		
Raw	31,827,061		
Waste	650,273		
Clothing and wearing apparel	1,618,802		
Dress and piece goods	13,082,369		
Laces and embroideries	2,877,573		
Ribbons	1,727,543		
All other manufactures	5,802,733		
Soap, fancy, perfumed, and toilet	827,391		
Soap, all other	248,266		
Spices:			
Nutmegs	368,765		
Pepper, black or white	1,053,100		
All other, unground	997,753		
Ground spices	332,653		
Spirits, distilled:			
Of domestic manufacture, returned	884,948		
Brandy	626,875		
All other	1,663,255		
Sponges	430,231		
Starch	140,528		
Straw, unmanufactured	4,554		
Straw, manufactures of	250,185		
Sugar, molasses, and confectionery:			
Molasses	739,576		
Beet sugar	15,269,397		
Cane and other sugar, free	17,237,633		
Cane and other sugar, dutiable	60,714,099		
Sugar above No. 16, Dutch standard	1,602,951		
Confectionery	31,797		
Sulphur ore	970,804		
Tar and pitch	8,694		
Tea	9,675,051		
Tin in bars, blocks, pigs, or grain	11,843,357		
Tobacco, and manufactures of:			
Leaf, suitable for cigar wrappers	9,889,781		
Leaf, other	5,551,219		
Cigars, cigarettes, and cheroots	2,083,450		
All other manufactures	61,549		

A. The imports of animals free of duty, for breeding, consisted of 624 cattle, 1,067 horses, and 2,396 sheep. The other imports were 199,128 cattle, 1,975 horses, and 343,515 sheep. The quantity of asphaltum imported was 73,494 tons; of beeswax, 452,016 pounds; of bismuth, 173,802 pounds; of bristles, sorted or bunched, 1,835,156 pounds; of hydraulic cement, 2,086,053 barrels.

B. Of breadstuffs, 1,871,101 bushels of wheat formed the chief item in the total sum of \$2,544,765. The importation of bottled beer has declined, being 918,562 gallons in 1899; not so that of beer in casks, which was 1,928,672 gallons.

C. Among chemicals, drugs, and dyes figured 5,227,098 pounds of alizarin and alizarin colors and dyes, including extract of madder, 23,300,762 pounds of argols or crude tartar, 3,281,977 pounds of cinchona and similar barks for the extraction of quinine, 97,563 pounds of cochineal, 37,375 tons of logwood, 3,183,864 pounds of extracts and decoctions from dyewoods, 15,665,252 pounds of glycerin, 928,089 pounds of gum arabic, 1,807,889 pounds of crude camphor, 18,126,228 pounds of copal, dammar, and cowrie gums, 38,123,478 pounds of gambier, 2,445,061 pounds of gum chicle, 9,830,111 pounds of shellac, 3,127,357 pounds of indigo, 98,432,319 pounds of licorice root, 113,107,250 pounds of chloride of lime, 1,608,468 gallons of mineral waters, 513,499 pounds of crude opium, 124,214 pounds of prepared opium containing less than 9 per cent. of morphia, 2,807,718 pounds of chlorate of potash, 95,856,263 pounds of muriate of potash, 19,985,505 pounds of crude nitrate or saltpeter, 30,828,207 pounds of other potash, 3,978,421 ounces of sulphate of quinia and alkaloids or salts of cinchona bark, 18,405,272 pounds of caustic soda, 122,314 tons of nitrate of soda, 4,224,680 pounds of sal soda, 45,444,305 pounds of soda ash, 23,891,135

pounds of other salts of soda, 128,683 tons of crude sulphur, 12,975,970 pounds of ground sumac, and 272,174 pounds of vanilla beans. The total value of chemicals, drugs, and dyes was \$42,681,504, of which \$25,170,201 represent free and \$17,511,303 dutiable substances. The import of raw chickory was only 159,269 pounds, against 16,930,162 pounds in 1897 before the duty was put on. The import of chocolate was 1,124,515 pounds, showing a steady increase, but not greater than that of crude cacao, of which 35,512,364 pounds were imported, while the import of prepared cocoa—926,219 pounds—was less than in former years. Of clays and earthenware, 116,757 tons were imported. The importation of bituminous coal was 1,258,784 tons, about equal to the average for the five years preceding. Coffee importations amounted to 831,827,063 pounds, a little less than in 1898, though much exceeding the total for previous years. Coffee substitute declined from 2,373,245 pounds in 1897 to 992,395 pounds in 1899. The imports of copper were 39,812,667 pounds. The importation of raw cotton, which has only attained considerable figures in the past five years, was 50,158,158 pounds. The imports of unbleached cotton cloth were 1,250,932 yards. Those of fine cotton fabrics have increased of late years, and in 1899 attained the figure of 51,196,236 square yards. The import of cotton yarn was 14,550,015 pounds, surpassing all previous figures.

E. The import of emery ore was 159,980 hundredweight, that of grains and ground emery 707,185 pounds.

F. Of flax, 6,474 tons were imported; of hemp, 3,941 tons; of istle or Tampico fiber, 4,419 tons; of jute and jute butts, 83,161 tons; of manila hemp, 53,195 tons; of sisal grass, 71,898 tons; of other vegetable fibers and textile grasses, 7,466 tons. The imports of cordage were 455,001 pounds; of carpets of jute and other vegetable fibers, 254,827 square yards; of oilcloths, 416,658 square yards; of binding twine, 1,819,527 pounds; of coir yarn, 2,530,914 pounds; of yarns or threads of jute and similar fibers, 1,911,295 pounds. The fish imports included 1,224,090 pounds of fresh salmon, 11,382,462 pounds of dried, salted, or smoked cod, haddock, hake, and pollock, 3,590,339 pounds of smoked or dried herring, 160,053 barrels of pickled or salted herring, 6,897,328 pounds of canned and fresh lobster, 81,045 barrels of pickled or salted mackerel, and 521,905 pounds of pickled or salted salmon. Among fruits, the imports of dried currants were 30,849,253 pounds; of dates, 12,943,305 pounds; of figs, 7,284,058 pounds; of almonds, 9,957,427 pounds. The import of prunes has decreased since the development of the California fruit industry from 58,093,410 pounds in 1890 to only 600,360 pounds; that of raisins from 36,914,330 pounds to 4,933,201 pounds.

G. The extension of the glass industry is shown in the decline since 1890 of imports of unpolished window glass from 73,112,550 to 47,202,267 pounds, of rough plate glass from 2,008,931 to 219,099 square feet, of cast and polished plate glass from 2,833,838 to 928,273 square feet. Of polished cylinder and crown glass, 247,074 square feet were imported unsilvered and 4,272,842 square feet silvered; in 1890 only 896 square feet silvered and 2,651,524 square feet unsilvered. The import of guano—4,210 tons—was only half as great as in 1890, while that of phosphates leaped from 9,840 tons in 1898 to 114,954 tons.

H. The imports of hides were 130,396,020 pounds; of goatskins, 69,728,945 pounds; of other skins, 66,965,785 pounds. The quantity of honey

imported was 126,217 gallons. The importation of hops, which varies according to the results of the domestic crop but has declined on the whole, was 1,319,319 pounds. The import of gutta-percha was only 518,939 pounds, although the value was almost the same as for 3,843,854 pounds in 1896. The import of rubber was 51,063,066 pounds, which was considerably greater than in any previous year.

I. The import of iron ore was only 269,013 tons; of pig iron, 23,316 tons. The importation of bar iron has fallen from 64,125,976 pounds in 1890 to 44,745,118 pounds; of hoop, band, and scroll iron, from 18,706,180 to 19,800 pounds; of steel ingots, blooms, slabs, billets, and bars, from 81,395,033 to 23,797,994 pounds; of sheet, plate, and taggers iron or steel, from 16,978,263 to 4,243,296 pounds; of manufactured ties and hoops for bales and barrels, from 44,621,523 pounds to almost nothing; of tin plates and taggers tin, from 680,060,925 to 108,484,826 pounds; of wire rods, from 139,658,120 to 34,610,636 pounds; of wire, from 9,589,140 to 5,278,044 pounds; of anvils, from 3,162,305 to 530,113 pounds; of chains, from 1,485,606 to 362,855 pounds. The import of ivory was 321,315 pounds; of vegetable ivory, 8,864,237 pounds.

L. The quantity of lead imported was 192,345,318 pounds.

M. The import of manganese ore and oxide grows yearly, amounting to 257,817,560 pounds in 1899.

N. Of nickel ore and matte, 208 tons were imported.

O. The import of whale and fish oil was 531,932 gallons; of olive oil, 930,042 gallons.

P. The importation of rags for paper stock was 55,596,560 pounds, only a third as much as in former years. The import of plaster of Paris was 182,979 tons; of platinum, 6,357 pounds; of plumbago, 15,970 tons. Of cheese, 11,826,175 pounds were imported; of butter, only 23,700 pounds.

R. Of rice, 2,595,600 pounds came from the Hawaiian Islands and 151,241,426 pounds from other countries, besides 50,340,267 pounds of rice flour and meal and broken rice.

S. The import of salt was 363,782,933 pounds. Linseed was formerly imported in large quantities; now still larger quantities are exported, and the imports have fallen to 81,953 bushels. The import of silk cocoons was only 13,537 pounds in 1899, while of raw silk 9,691,145 pounds were imported and of silk waste 1,545,701 pounds. The imports of fancy soap were 793,940 pounds, an average quantity. The imports of spices were 1,530,102 pounds of nutmegs, 12,332,747 pounds of black and white peppers, 13,851,055 pounds of other unground spices, and 3,346,925 pounds ground. The quantity of American spirits returned after being stored abroad was 998,173 proof gallons; the import of brandy, 219,960 gallons; of other foreign spirits, 1,227,824 gallons. The import of molasses—5,821,556 gallons—was less than a third of the imports five years back. The importation of beet sugar was 723,336,352 pounds; of raw cane sugar, free of duty, 462,299,880 pounds; of dutiable cane sugar for refining, 2,731,868,574 pounds; of cane sugar above No. 16, Dutch standard, 62,745,763 pounds; total sugar, 3,980,250,569 pounds. The sulphur ore imported was 296,216 tons. The importation of tea was 74,089,809 pounds, showing a decline of over 25 per cent. since the duty was imposed.

T. The tin import was 67,342,107 pounds. The tobacco imports were 4,147,048 pounds of wrapper leaf, 4,349,034 pounds of other leaf, and 418,634

pounds of cigars. Among the imports of timber and wood were 24,714 thousand feet of mahogany, 198,195 of logs and round timber, 423,928 of boards, 471,594 thousand shingles, and 33,319 tons of wood pulp.

W. The imports of wine comprised 262,371 dozen bottles of champagne, 274,873 dozen bottles of still wines, and 2,253,226 gallons in casks. The imports of wool were 12,976,999 pounds of clothing, 2,155,419 pounds of combing, and 61,603,791 pounds of carpet wool; total, 76,736,209 pounds, valued at \$8,322,897. Of carpets, the imports were 631,547 square yards; of cloths, 4,092,898 pounds; of women's and children's dress goods, 27,098,584 square yards; of yarns, 173,870 pounds. The import of zinc was 2,124,928 pounds.

The total value of imported merchandise entered for consumption in 1899 was \$685,441,889, of which \$299,668,977 represent articles free of duty and \$385,772,912 dutiable merchandise paying \$200,873,429 of duties, or an average rate ad valorem of 52.07 per cent. Articles of food and animals were valued at \$207,468,197, or 30.27 per cent. of the total value, and on \$88,930,552 no duties were collected, while the remaining \$118,537,645 paid \$78,757,947, or 39.21 per cent. of the total duties collected, the average rate being 66.44 per cent. Articles in a crude condition which enter into the various processes of domestic manufacture were valued at \$218,110,941, or 31.82 per cent. of the total value, and on only \$36,842,708 were duties imposed, the average rate being 26.15 per cent., which yielded \$9,635,817, 4.79 per cent. of the customs revenue, while nearly five sixths of the raw materials imported, or the value of \$181,268,233, paid no duties at all. Of articles wholly or partly manufactured which serve as materials in the manufactures and mechanic arts, the imports entered for consumption were \$60,062,540, or 8.76 per cent. of the total, \$13,944,018 being duty free and \$46,118,522 dutiable at an average rate of 29.17 per cent., yielding \$13,451,921, which was 6.70 per cent. of all the duties collected. Articles manufactured and ready for consumption had a value of \$110,735,447, or 16.15 per cent. of the total, and of this amount only \$10,108,391 escaped duty, while \$100,627,056 contributed \$52,605,533 to the revenue, 26.19 per cent. of the whole, the average rate being 52.28 per cent. ad valorem. Articles of voluntary use and luxuries amounted to \$89,064,764, or 13 per cent. of the total value, and on \$83,646,981—only \$5,417,783 being exempt—duties were levied at the average rate of 55.50 per cent. ad valorem, yielding \$46,422,211, which was 23.11 per cent. of the total duty collected on imports. The mean rate of duty on dutiable imports was 50.21 per cent.; on all imports, free and dutiable, 29.48 per cent., 43.72 per cent. of the total imports being exempt from duty.

The values of articles of domestic produce and manufacture exported in the year ending June 30, 1899, are given in the following table:

Agricultural implements:	Value.
Mowers and reapers.....	\$9,053,890
Plows and cultivators.....	1,445,410
All other.....	1,882,967
Aluminum, and manufactures of.....	441,846
Animals:	
Cattle.....	30,516,838
Hogs.....	227,341
Horses.....	5,444,342
Mules.....	516,968
Sheep.....	853,565
All other, including fowls.....	322,087
Art works.....	308,493
Bark, and extract of, for tanning.....	369,698
Beeswax.....	41,016
Blacking, stove.....	430,219
Blacking, other.....	431,968

Bones, hoofs, horns, etc.....	\$195,759
Books, maps, engravings, etc.....	2,656,136
Brass, and manufactures of.....	1,351,049
Breadstuffs:	
Barley.....	1,875,274
Bran, middlings, and mill feed.....	2,008,588
Bread and biscuit.....	809,998
Buckwheat.....	846,028
Corn.....	68,977,448
Corn meal.....	1,778,868
Oats.....	9,787,540
Oatmeal.....	1,296,968
Rye.....	5,886,078
Rye flour.....	15,015
Wheat.....	104,269,169
Wheat flour.....	73,093,870
Preparations for table food.....	2,132,110
All other.....	1,681,725
Bricks.....	229,066
Broom corn.....	185,902
Brooms and brushes.....	211,981
Candles.....	375,470
Cars, carriages, and other vehicles:	
Cars, passenger and freight.....	1,554,012
Cars for other than steam railroads.....	504,484
Cycles, and parts of.....	5,753,880
All other carriages, and parts of.....	2,047,788
Celluloid, and manufactures of.....	173,771
Cement.....	181,861
Chemicals, drugs, dyes, and medicines:	
Acids.....	207,347
Ashes, pot and pearl.....	29,878
Copper, sulphate of.....	1,173,168
Dyes and dyestuffs.....	478,582
Ginseng.....	789,545
Lime, acetate of.....	700,900
Medicines, patent or proprietary.....	2,661,008
Roots, herbs, and barks.....	169,828
All other.....	4,792,317
Cider.....	64,500
Clay.....	120,806
Clocks and watches:	
Clocks, and parts of.....	1,043,621
Watches, and parts of.....	819,810
Coal and coke:	
Coal, anthracite.....	6,475,596
Coal, bituminous.....	7,185,432
Coke.....	632,768
Coffee, cocoa, and chocolate, prepared.....	192,868
Copper, and manufactures of:	
Ore.....	440,575
Ingots, bars, plates, and old.....	84,470,343
All other manufactures.....	1,507,186
Cork, manufactures of.....	52,386
Cotton, and manufactures of:	
Sea island.....	2,361,697
Upland and other.....	307,303,077
Waste.....	524,802
Cloth, colored.....	5,221,278
Cloth, uncolored.....	13,748,619
Wearing apparel.....	1,273,839
Waste, cop and mill.....	314,876
All other manufactures.....	3,006,808
Dental goods.....	220,917
Earthen, stone, and china ware:	
Earthen and stone ware.....	312,887
China ware.....	36,943
Eggs.....	641,385
Feathers.....	212,374
Fertilizers, phosphates.....	5,869,891
Fertilizers, all other.....	974,474
Fibers and textile grasses, manufactures of:	
Bags.....	406,568
Cordage.....	735,149
Twine.....	1,508,846
All other.....	446,115
Fish:	
Fresh, other than salmon.....	53,072
Cod, haddock, etc., dried, smoked, or cured.....	370,150
Herring, smoked or cured.....	66,082
All other, dried, smoked, or cured.....	40,306
Mackerel, pickled.....	12,771
All other, pickled.....	61,650
Salmon, canned.....	2,906,475
All other, fresh or cured.....	331,601
Canned fish, other than salmon.....	124,520
Caviare.....	215,387
Oysters.....	727,349
All other shellfish.....	249,457
All other fish and fish products.....	11,099
Fruits and nuts:	
Apples, dried.....	1,245,738
Apples, green or ripe.....	1,210,459
Oranges.....	282,318
Prunes.....	390,847
Raisins.....	242,620
All other, green, ripe, or dried.....	1,967,649
Fruits, canned.....	2,390,716
All other preserved.....	66,899
Nuts.....	140,250

	Value.		Value.
Furniture of metal.....	\$182,198	Musical instruments:	
Furs and fur skins.....	3,092,846	Pianofortes.....	\$253,950
Ginger ale.....	7,418	All other, and parts of.....	551,896
Glass and glassware:		Naval stores:	
Window glass.....	32,690	Rosin.....	3,741,581
All other.....	1,470,961	Tar.....	86,002
Glucose or grape sugar.....	3,694,890	Turpentine and pitch.....	54,958
Glue.....	222,072	Turpentine, spirits of.....	6,100,419
Grease, grease scraps, and soap stock.....	2,576,507	Nickel, nickel oxide, and matte.....	1,110,222
Gunpowder and explosives:		Oil cake and oil-cake meal:	
Gunpowder.....	181,642	Cotton-seed.....	9,253,398
All other explosives.....	1,350,347	Flaxseed or linseed.....	5,277,744
Hair, and manufactures of.....	503,712	Oilcloths:	
Hay.....	858,992	For floors.....	31,080
Hides and skins.....	929,117	All other.....	101,452
Honey.....	55,900	Oils:	
Hops.....	3,626,144	Lard.....	412,447
Household and personal effects.....	1,909,028	Whale.....	35,970
Ice.....	43,461	Fish.....	191,342
India-rubber boots and shoes.....	260,886	All other animal.....	64,368
India rubber, other manufactures of.....	1,504,499	Mineral, crude.....	5,302,892
India rubber, scrap and old.....	876,968	Naphthas.....	1,170,294
Ink, printers'.....	104,693	Illuminating.....	41,067,081
Ink, all other.....	105,960	Lubricating and heavy paraffin oil.....	7,943,193
Instruments and apparatus, including telegraph.....	4,399,180	Residuum, including tar.....	669,758
Iron and steel, and manufactures of:		Corn oil.....	565,293
Iron ore.....	66,400	Cotton-seed oil.....	12,077,519
Pig iron, ferro-manganese.....	30,667	Linseed oil.....	47,681
Pig iron, all other.....	5,290,628	Oil of peppermint.....	118,227
Iron, scrap and old.....	1,041,229	All other volatile oils.....	162,358
Bar iron.....	863,144	All other vegetable oils.....	698,257
Wire rods.....	580,540	Paints, pigments, and colors:	
All other bars or rods of steel.....	944,874	Carbon black, gas black, and lampblack.....	191,827
Billets, ingots, and blooms.....	892,790	Zinc, oxide of.....	316,892
Rails for railways, iron.....	141,706	All other.....	928,736
Rails for railways, steel.....	5,298,125	Paper, and manufactures of:	
Sheets and plates, iron.....	324,747	Paper hangings.....	129,000
Sheets and plates, steel.....	1,634,896	Printing paper.....	2,385,667
Tin plates, terneplates, and taggers tin.....	10,045	Writing paper and envelopes.....	158,096
Structural iron and steel.....	1,759,968	All other.....	2,805,121
Wire.....	3,891,180	Paraffin and paraffin wax.....	6,804,684
Locks, hinges, and other builders' hardware.....	4,898,753	Perfumery and cosmetics.....	316,543
Saws.....	223,764	Photographic materials.....	1,164,465
Tools not elsewhere specified.....	2,719,856	Plated ware.....	450,462
Car wheels.....	182,124	Platinum, and manufactures of.....	12,360
Castings.....	1,055,525	Provisions:	
Cutlery, table.....	81,437	Beef, canned.....	3,503,293
Cutlery, all other.....	164,603	Beef, fresh.....	22,545,185
Firearms.....	681,440	Beef, salted or pickled.....	2,525,784
Machinery, electrical.....	2,736,110	Beef, other cured.....	145,996
Machinery, metal-working.....	6,491,586	Tallow.....	4,367,356
Printing presses, and parts of.....	847,006	Bacon.....	41,557,067
Pumps and pumping machinery.....	2,710,654	Hams.....	30,774,084
Sewing machines, and parts of.....	3,264,344	Pork, fresh.....	2,723,661
Shoe machinery.....	863,936	Pork, salted or pickled.....	7,917,066
Steam fire engines.....	13,973	Lard.....	42,208,425
Locomotive engines.....	4,728,748	Lard compounds and substitutes for.....	1,200,231
Stationary engines.....	835,061	Casings for sausages.....	1,671,052
Boilers and parts of engines.....	1,132,489	Mutton.....	29,427
Typewriting machines.....	2,449,305	Oleo.....	9,183,659
All other machinery.....	18,722,251	Oleomargarine.....	509,706
Nails, cut.....	604,215	Poultry and game.....	183,508
Nails, wire.....	973,494	All other meat products.....	5,634,895
Nails, all other, including tacks.....	285,427	Butter.....	3,263,951
Pipe and fittings.....	5,875,748	Cheese.....	2,316,049
Safes.....	145,849	Milk.....	1,049,211
Scales and balances.....	390,214	Quicksilver.....	516,459
Stoves and ranges.....	503,739	Quills.....	12,913
All other manufactures of iron and steel.....	10,450,809	Rags.....	142,818
Jewelry, and manufactures of gold and silver:		Rice.....	38,511
Jewelry.....	729,194	Rice bran, meal, and polish.....	80,996
Other manufactures of gold and silver.....	238,962	Salt.....	86,315
Lamps, chandeliers, etc.....	777,379	Sand.....	39,315
Lead, and manufactures of:		Seeds:	
Pigs, bars, and old.....	6,502	Clover.....	1,264,922
Type.....	97,745	Cotton.....	197,023
All other manufactures.....	130,885	Flaxseed or linseed.....	2,615,449
Leather, and manufactures of:		Timothy.....	492,710
Sole leather.....	6,290,904	Other grass seeds.....	156,300
Glazed kid upper.....	664,265	All other.....	153,092
Patent or enameled upper.....	82,908	Shells.....	116,052
Splits, buff, grain, and other upper.....	11,578,822	Silk, manufactures of.....	290,739
All other leather.....	1,090,574	Silk waste.....	16,075
Boots and shoes.....	2,711,325	Soap:	
Harness and saddles.....	237,552	Toilet or fancy.....	314,326
All other manufactures.....	792,575	All other.....	1,143,294
Lime.....	71,733	Spermaceti and spermaceti wax.....	57,922
Malt.....	324,145	Spices, ground or prepared.....	2,357
Malt liquors:		Spirits, distilled:	
In bottles.....	1,733,373	Alcohol, pure, neutral, or cologne spirits.....	427,336
In other coverings.....	154,751	Wood alcohol.....	414,875
Marble and stone, and manufactures of:		Brandy.....	29,359
Unmanufactured.....	68,903	Rum.....	1,173,396
Roofing slate.....	1,863,617	Bourbon whisky.....	297,665
All other manufactures.....	454,236	Rye whisky.....	156,617
Matches.....	103,693	All other spirits.....	24,572
Musical instruments:		Sponges.....	25,452
Organs.....	985,997	Starch.....	2,262,641
		Stationery, except of paper.....	1,150,893
		Stearin.....	55,821
		Stereotype and electrotype plates.....	60,940

	Value.
Straw and palm leaf, manufactures of	\$359,780
Sugar and molasses:	
Molasses.....	444,392
Sirup.....	1,465,849
Sugar, brown.....	14,375
Sugar, refined.....	436,302
Candy and confectionery.....	603,170
Teeth, artificial.....	85,887
Tin, manufactures of.....	385,470
Tobacco, and manufactures of:	
Leaf tobacco.....	25,170,771
Stems and trimmings.....	296,447
Cigars.....	76,172
Cigarettes.....	2,197,353
Plug.....	2,097,815
All other manufactures.....	807,658
Toys.....	148,806
Trunks, valises, and traveling bags.....	132,638
Varnish.....	463,547
Vegetables:	
Beans and peas.....	1,269,812
Onions.....	134,250
Potatoes.....	450,739
Vegetables, canned.....	555,691
All other, including pickles and sauces.....	398,908
Vessels sold to foreigners:	
Steamers.....	49,400
Sailing vessels.....	17,626
Vinegar.....	15,488
Whalebone.....	395,443
Wine:	
In bottles.....	52,015
In other coverings.....	694,315
Wood, and manufactures of:	
Sawed timber.....	4,161,097
Hewed timber.....	818,641
Logs and other timber.....	3,262,689
Boards, planks, and deals.....	15,051,176
Joists and scantling.....	371,640
Shingles.....	126,989
Shooks, box.....	454,230
Shooks, other.....	558,961
Staves.....	3,730,207
Heading.....	177,006
All other lumber.....	3,081,226
Doors, sash, and blinds.....	1,136,907
Furniture.....	3,571,575
Hogsheads and barrels.....	210,137
Trimming, moldings, house finishings.....	376,273
Wooden ware.....	728,375
Wood pulp.....	696,819
All other manufactures.....	2,995,699
Wool, and manufactures of:	
Wool, raw.....	287,350
Carpets.....	81,138
Dress goods.....	16,933
Flannels and blankets.....	42,672
Wearing apparel.....	538,799
All other manufactures.....	367,865
Yeast.....	36,061
Zinc, and manufactures of:	
Zinc ore.....	448,145
Pigs, bars, plates, and sheets.....	972,076
Manufactures of zinc.....	184,894
All other articles.....	2,098,239
Total value of domestic exports	\$1,203,931,222

Of the sum of \$1,203,931,222, the total value of the exports of domestic merchandise, \$784,989,087 represent agricultural products, \$28,832,608 the products of mines, \$42,126,964 forest products, \$6,025,446 fishery products, \$3,281,559 miscellaneous products, and \$338,675,558 manufactured articles. The proportion of manufactures in the total exports has increased from 12.76 per cent. in 1860, 15 per cent. in 1870, and 12.48 in 1880 to 20.25 per cent. in 1885, 17.87 per cent. in 1890, 23.14 per cent. in 1895, and 28.13 per cent. in 1899. The percentage of mine products has risen from 1.10 per cent. in 1870 to 2.39 per cent. in 1899. The relative position of forest products has not changed much, although their value has trebled in thirty years. The exports of agricultural products have increased from \$256,560,000 in 1860 and \$361,188,000 in 1870, but their ratio to the total exports has declined from about 80 per cent., the average for fifty years preceding, to 65.20 per cent.

A. The numbers of animals exported were 389,490 cattle, 33,031 hogs, 45,778 horses, 6,755 mules, and 143,286 sheep.

B. The export of beeswax was 152,494 pounds. The total value of breadstuffs was \$273,999,699. The quantity of wheat was 139,432,815 bushels; of wheat flour, 18,485,690 barrels; of rye, 10,140,866 bushels; of rye flour, 4,826 barrels; of barley, 2,267,403 bushels; of buckwheat, 1,533,980 bushels; of oats, 30,309,778 bushels; of corn, 174,089,094 bushels; of corn meal, 791,488 barrels; of oatmeal, 58,042,505 pounds; of bread and biscuit, 16,447,430 pounds; of bran, middlings, and mill feed, 127,953 tons. The export of candles was 3,420,443 pounds; of cement, 64,122 barrels. The beer exported amounted to 1,433,799 dozen bottles and 602,055 gallons in casks. The number of organs shipped abroad was 17,919; of pianos, 1,169.

C. Among the exports of chemicals, drugs, dyes, and medicines, which had a total value of \$10,995,289, were 745,433 pounds of pot and pearl ash, 27,474,801 pounds of sulphate of copper, 478,582 pounds of ginseng, and 48,987,511 pounds of acetate of lime. The export of cider was 490,803 gallons. Of anthracite coal, 1,571,581 tons were exported; of bituminous, 3,480,452 tons; total, 5,051,933 tons, valued at \$13,661,028. The export of coke was 215,513 tons. The export of copper ore declined from 41,269 tons in 1893 to 5,910 tons in 1899, while that of manufactured copper increased from 37,642,464 pounds to 254,987,164 pounds. The copper exports, not including ore, were worth \$35,983,529. The export of sea island cotton was 14,142,052 pounds; of upland and other cotton, 3,759,268,241 pounds; of waste, 14,308,829 pounds; total, 3,787,919,122 pounds, valued at \$210,089,576. The exports of cotton manufactures, which have trebled in a few years and had a total value of \$23,566,914, include 108,940,972 yards of colored and 303,063,083 yards of uncolored cloth.

F. The export of crude phosphate was 780,513 tons; of other fertilizers, 41,587 tons. The cordage exported was 8,659,948 pounds; the total value of manufactures of vegetable fibers and grasses was \$3,093,102. The exports of fish and fish products, having a total value of \$5,169,811, included 1,444,079 pounds of fresh fish, 9,247,076 pounds of dried or cured codfish, hake, haddock, and pollock, 3,101,560 pounds of smoked or cured herring, 842,342 pounds of other fish, dried, smoked, or cured, 1,017 barrels of pickled mackerel, 14,428 barrels of other fish in pickle, and 30,167,277 pounds of canned salmon. The export of dried apples was 19,305,739 pounds; of fresh apples, 380,222 barrels; of prunes, 5,615,565 pounds; of raisins, 4,659,807 pounds.

G. The export of glucose in 1899 was 229,003,571 pounds, having risen from 38,256,161 pounds in 1890. The export of glue rose from 728,696 to 2,368,087 pounds. The export of gunpowder was 1,504,724 pounds. Of hay, 64,916 tons were exported; of hops, 21,145,512 pounds. Of rubber boots and shoes, 486,586 pairs went abroad.

I. The iron and steel exports were valued at \$93,716,031, having increased from \$70,406,885 in 1898, \$57,497,872 in 1897, \$41,160,877 in 1896, \$32,000,989 in 1895, and \$29,220,264 in 1894. The quantity of iron ore was 31,412 tons; of ferro-manganese pig, 495 tons; of other pig iron, 299,146 tons; of scrap iron, 91,985 tons; of bar iron, 23,564,511 pounds; of wire rods, 56,492,797 pounds; of other bars or rods of steel, 73,861,862 pounds; of billets, ingots, and blooms, 43,242 tons; of hoop, band, and scroll iron, 6,753,270 pounds; of iron rails for railways, 11,776 tons; of steel rails, 266,109 tons; of iron sheets and plates, 15,107,028 pounds; of steel sheets and plates, 112,690,113 pounds; of tin plates, 205,910

pounds; of structural steel and iron, 49,069 tons; of wire, 215,194,475 pounds; of car wheels, 23,933 in number; of fire engines, 4; of locomotive engines, 517; of stationary engines, 605; of safes, 2,257; of cut nails, 32,869,265 pounds; of nails, 55,813,055 pounds.

L. The export of sole leather, 37,120,912 pounds, was equal to the average in quantity and value; that of upper and other leather, especially splits, has largely increased. Of boots and shoes, 1,934,277 pairs were exported, compared with 587,108 pairs in 1890. The value of leather exports was \$23,466,985, grown from \$12,438,847 in 1890. The export of lime was 73,385 barrels.

N. The exports of naval stores in 1899 were \$9,982,955 in value, consisting of 2,563,229 barrels of rosin, 36,903 barrels of tar, 22,945 barrels of turpentine, and 17,761,533 gallons of spirits of turpentine. Of nickel and nickel oxide, 4,907,722 pounds were exported.

O. The export of oil cake from cotton seed was 1,079,993,479 pounds, having more than doubled in four years, while that of flaxseed oil cake shows a great falling off, being only 87,177,390 pounds. The exports of animal oils consisted of 917,007 gallons of lard oil, 79,767 gallons of whale oil, 946,358 gallons of fish oil, and 166,372 gallons of other oils. The vegetable oils, having a total value of \$13,809,335, consisted mainly of 2,360,623 gallons of corn oil, 50,627,219 gallons of cottonseed oil, 107,000 gallons of linseed oil, and 117,462 pounds of oil of peppermint. The value of the coal oil exports was \$56,273,168, the export of illuminating oil being 722,279,480 gallons; naphthalas, 16,252,785 gallons; crude oil, 113,088,060 gallons; lubricating oil and heavy paraffin oil, 67,424,393 gallons; residuum, 730,214 barrels. The export of oxide of zinc was 9,719,741 pounds.

P. The total value of provisions in 1899 was \$175,508,608, the highest figure yet attained. The quantity exported of canned beef was 38,385,472 pounds; of fresh beef, 282,139,974 pounds; of salt and pickled beef, 46,564,876 pounds; of other cured beef, 1,579,313 pounds; of tallow, 107,361,009 pounds; of bacon, 562,651,480 pounds; of hams, 225,846,750 pounds; of fresh pork, 41,310,364 pounds; of salt or pickled pork, 137,197,200 pounds; of lard, 211,259,851 pounds; of lard compounds and substitutes, such as cottolene and lardine, 22,144,717 pounds; of mutton, 379,110 pounds; of oleomargarine oil, 142,390,492 pounds; of imitation butter, 5,549,322 pounds; of butter, 20,247,997 pounds; of cheese, 78,198,753 pounds. The quicksilver exported was 1,123,471 pounds. Of rice, 852,704 pounds only were exported; of rice bran, meal, and polish, 14,481,985 pounds. Shipments of printing paper amounted to 98,154,644 pounds, the value of paper exports being \$5,477,884, twice what it was three years before. The exports of paraffin and paraffin wax show steady increase, amounting in 1899 to 174,844,701 pounds.

S. The export of salt was 25,256,634 pounds. The seed exports were \$5,079,396 in value, comprising 19,982,234 pounds of clover seed, 34,443,806 pounds of cotton seed, 2,830,991 bushels of flaxseed, 16,149,611 pounds of timothy seed. Of soap, other than toilet soap, 32,529,003 pounds went abroad. The export of spermaceti and wax was 214,443 pounds. Exports of American spirits consisted largely of alcohol and neutral and cologne spirits, of which 1,476,028 gallons, proof, were shipped, while of Bourbon whisky the quantity was 224,918 gallons; of rye whisky, 99,884 gallons; of brandy, 20,994 gallons; of rum, 850,719 gallons; of wood spirit, 727,062 gallons. The export of starch was 110,193,776 pounds; of stearin, 1,174,167 pounds. Sugar exports were of the

value of \$2,053,888, comprising 5,682,080 gallons of molasses, 10,070,650 gallons of sirup, and 9,462,228 pounds of refined sugar.

T. The tobacco exports had a total value of \$30,646,216, consisting of 272,421,295 pounds of leaf tobacco, 11,191,827 pounds of stems and trimmings, 3,732 thousands of cigars, 1,169,467 thousands of cigarettes, 8,999,945 pounds of plug tobacco, and snuff and other manufactures of tobacco in smaller quantities. The total value of timber, lumber, and wood manufactures was \$41,489,526. Of sawed timber there were 406,448 thousand feet shipped; of hewed timber, 4,796,658 cubic feet; of boards, deals, and planks, 970,170 thousand feet; of joists and scantlings, 34,294 thousand feet; of shingles, 73,791 thousand; of staves, 44,382,689; of wood pulp, 55,932,270 pounds.

V. There were 436,817 gallons of varnish exported. The vegetable exports had a value of \$2,799,400, comprising 883,201 bushels of beans and peas, 164,902 bushels of onions, 579,833 bushels of potatoes, and canned vegetables, pickles, sauces, etc.

W. Of whalebone the export was 144,283 pounds. The wine exports were 10,973 dozen bottles and 1,498,078 gallons in casks and other coverings. The export of raw wool was 1,683,419 pounds; of carpets, 107,779 yards; of dress goods, 27,657 yards; the total value of wool manufactures being \$1,047,407. The export of zinc ore was 15,489 tons; of zinc in pigs, bars, plates, and sheets, 18,321,375 pounds.

The merchandise imports from the various foreign countries in 1899 had the following values:

COUNTRIES.	Free.	Dutiable.	Total.
<i>Europe.</i>			
Austria-Hungary.....	\$975,649	\$5,575,607	\$6,551,256
Azores and Madeira.....	812	9,511	9,823
Belgium.....	3,608,577	6,943,452	10,552,080
Denmark.....	176,760	103,488	280,198
France.....	12,169,040	49,977,016	62,146,056
Germany.....	17,588,227	66,642,550	84,225,777
Gibraltar.....	10,564	7,432	17,996
Greece.....	62,698	881,893	944,521
Greenland, Iceland, and Färöes.....	78,406		78,406
Italy.....	12,894,360	11,939,396	24,832,746
Netherlands.....	3,746,222	10,711,396	14,457,620
Portugal.....	2,691,309	284,195	2,975,504
Russia.....	2,242,646	2,297,738	4,540,384
Servia.....	8,745	1,025	9,770
Spain.....	1,362,828	2,619,535	3,982,363
Sweden and Norway..	129,846	2,475,709	2,605,555
Switzerland.....	541,952	14,394,528	14,936,480
Turkey in Europe.....	871,359	1,488,461	2,359,820
United Kingdom:			
England.....	35,602,589	61,750,431	97,353,020
Scotland.....	649,851	11,745,955	12,395,806
Ireland.....	54,668	8,664,391	8,739,391
Total Europe.....	\$95,461,450	\$258,423,064	\$353,884,514
<i>North America.</i>			
British Honduras.....	\$152,186	\$46,047	\$198,203
British America.....	11,108,905	20,600,280	31,604,135
Central American States:			
Costa Rica.....	3,499,185	82,714	3,581,899
Guatemala.....	1,949,400	161,864	2,111,264
Honduras.....	869,232	42,617	911,849
Nicaragua.....	1,431,502	83,128	1,514,630
Salvador.....	1,004,946	80,757	1,085,708
Mexico.....			
Miquelon and St. Pierre			
West Indies:			
British and Bermuda	6,494,511	8,150,768	14,645,294
Cuba.....	1,081,713	24,377,115	25,408,828
Danish.....	12,541	596,787	599,328
Dutch.....	92,908	154,694	246,902
French.....	27,947	789	28,736
Hayti.....	801,674	24,866	826,540
Porto Rico.....	309,683	2,970,144	3,179,827
Santo Domingo.....	414,810	2,711,469	3,126,279
Total North America	\$47,500,826	\$64,650,085	\$112,150,911

COUNTRIES.	Free.	Dutiable.	Total.
<i>South America.</i>			
Argentine Republic...	\$1,980,778	\$3,181,788	\$5,112,561
Brazil.....	56,370,048	1,605,704	57,975,747
Chili.....	2,742,501	200,461	2,942,962
Colombia.....	4,422,067	704,664	5,126,731
Ecuador.....	987,029	117,624	1,054,653
Guiana:			
British.....	87,903	8,462,904	8,500,807
Dutch.....	697,957	953,052	1,651,009
French.....	37,764	165	37,929
Paraguay.....	180	.....	180
Peru.....	521,502	975,476	1,496,978
Uruguay.....	231,279	1,049,830	1,281,109
Venezuela.....	5,575,021	932,826	6,507,847
Total South America.....	\$73,453,399	\$18,134,494	\$96,587,893
<i>Asia.</i>			
Aden.....	\$1,934,218	\$723	\$1,934,941
China.....	8,230,760	10,888,506	18,619,266
East Indies:			
British.....	23,097,494	9,462,818	32,560,312
Dutch.....	1,461,505	19,862,440	21,313,945
Hong-Kong.....	1,859,907	1,119,367	2,479,274
Japan.....	15,553,932	11,162,822	26,716,814
Korea.....	408	.....	408
Russia, Asiatic.....	112,962	700	113,662
Turkey in Asia.....	1,533,574	1,760,676	3,294,250
All other Asia.....	24,109	54,822	78,481
Total Asia.....	\$58,288,769	\$58,802,445	\$107,091,214
<i>Oceania.</i>			
British Australasia.....	\$2,485,440	\$1,016,962	\$3,502,402
French Oceania.....	289,550	1,007	290,557
Hawaiian Islands.....	17,809,121	22,342	17,831,463
Philippine Islands.....	8,401,157	1,008,617	4,400,774
All other Oceania.....	962,760	921	963,681
Total Oceania.....	\$24,948,028	\$2,049,849	\$26,997,877
<i>Africa.</i>			
British Africa.....	\$274,214	\$1,082,532	\$1,306,746
Canary Islands.....	8,869	15,824	24,193
French Africa.....	553,586	31,734	585,320
Liberia.....	9,390	.....	9,390
Madagascar.....	.....	1,475	1,475
Portuguese Africa.....	11,083	672	11,705
Turkey in Africa:			
Egypt.....	3,876,488	3,613,441	7,489,929
Tripoli.....	.....	60,066	60,066
All other Africa.....	893,949	52,978	946,927
Total Africa.....	\$5,627,388	\$4,808,722	\$10,436,060
Grand total.....	\$300,279,810	\$396,868,679	\$697,148,489

The values of the merchandise exports to the different countries in 1899 are given in the following table:

COUNTRIES.	Domestic.	Foreign.	Total.
<i>Europe.</i>			
Austria-Hungary.....	\$7,148,419	\$230,516	\$7,378,935
Azores and Madeira.....	860,962	270	861,232
Belgium.....	43,866,076	291,957	44,158,033
Denmark.....	16,694,809	11,019	16,695,828
France.....	59,069,112	1,527,787	60,596,899
Germany.....	153,365,513	2,506,666	155,772,179
Gibraltar.....	566,536	1,425	567,961
Greece.....	213,507	.....	213,507
Greenland, Iceland, and Färöes.....	159	.....	159
Italy.....	24,892,087	142,908	25,034,940
Netherlands.....	78,737,644	578,354	79,306,998
Portugal.....	4,130,780	1,670	4,132,400
Roumania.....	146,048	.....	146,048
Russia.....	8,478,305	8,362	8,486,667
Serbia.....	143,322	975	144,297
Spain.....	9,068,995	8,812	9,077,807
Sweden and Norway.....	12,204,947	18,342	12,213,289
Switzerland.....	266,956	776	267,732
Turkey in Europe.....	352,304	2,158	354,467
United Kingdom:			
England.....	445,053,953	5,890,277	450,944,230
Scotland.....	36,426,463	216,549	36,643,012
Ireland.....	24,188,509	2,954	24,191,463
Total Europe.....	\$925,165,326	\$11,436,767	\$936,602,093

COUNTRIES.	Domestic.	Foreign.	Total.
<i>North America.</i>			
British America:			
Nova Scotia and New Brunswick.....	\$4,323,869	\$386,179	\$4,710,048
Canada.....	72,592,900	6,433,630	79,026,530
Newfoundland.....	1,587,198	8,299	1,595,497
British Columbia.....	4,093,610	144,773	4,238,383
British Honduras.....	491,323	9,479	500,802
Central American States:			
Costa Rica.....	1,210,057	30,898	1,240,950
Guatemala.....	1,071,811	31,152	1,102,963
Honduras.....	787,532	44,494	832,016
Nicaragua.....	1,018,312	168,199	1,186,511
Salvador.....	617,307	8,107	625,414
Mexico.....	24,283,528	1,199,547	25,483,075
Miquelon and St. Pierre.....	192,509	2,115	194,624
West Indies:			
British, including Bermuda.....	9,664,375	152,830	9,817,205
Cuba.....	17,247,952	1,368,435	18,616,377
Danish.....	495,533	2,228	497,761
Dutch.....	1,070,732	3,706	1,074,438
French.....	1,531,573	11,411	1,542,984
Hayti.....	2,329,413	186,858	2,516,271
Porto Rico.....	2,635,400	52,448	2,687,848
Santo Domingo.....	1,046,467	57,546	1,104,013
Total N. America.....	\$147,629,391	\$10,802,316	\$157,981,707
<i>South America.</i>			
Argentine Republic.....	\$9,288,788	\$324,742	\$9,563,510
Bolivia.....	81,398	.....	81,398
Brazil.....	12,142,890	96,306	12,239,096
Chili.....	2,106,106	1,018	2,107,124
Colombia.....	2,990,074	52,030	3,042,094
Ecuador.....	880,392	2,199	882,591
Guiana:			
British.....	1,704,204	45,341	1,749,545
Dutch.....	443,378	379	443,757
French.....	168,670	1,430	170,090
Paraguay.....	10,751	.....	10,751
Peru.....	1,323,488	2,167	1,325,650
Uruguay.....	1,216,468	26,334	1,242,822
Venezuela.....	2,611,669	39,775	2,651,624
Total S. America.....	\$35,068,301	\$501,601	\$35,569,902
<i>Asia.</i>			
Aden.....	\$998,741	.....	\$998,741
China.....	14,437,422	\$56,018	14,493,440
East Indies:			
British.....	4,338,819	3,117	4,341,936
Dutch.....	1,548,936	37	1,549,973
French.....	7,632	.....	7,632
Hong-Kong.....	7,637,041	95,484	7,732,525
Japan.....	17,158,970	105,718	17,264,688
Korea.....	141,679	.....	141,679
Russia, Asiatic.....	1,541,197	1,929	1,543,126
Turkey in Asia.....	167,173	570	167,743
All other Asia.....	124,678	.....	124,678
Total Asia.....	\$48,097,288	\$292,873	\$48,390,161
<i>Oceania.</i>			
British Australasia.....	\$19,624,896	\$152,233	\$19,777,129
French Oceania.....	274,576	12,548	287,124
Hawaiian Islands.....	9,006,671	398,799	9,405,470
Philippine Islands.....	401,258	2,335	404,193
All other Oceania.....	101,099	.....	101,099
Total Oceania.....	\$29,408,500	\$466,515	\$29,875,015
<i>Africa.</i>			
British Africa.....	\$15,130,790	\$24,820	\$15,155,610
Canary Islands.....	211,289	5,337	216,626
French Africa.....	542,508	1,047	543,555
Liberia.....	18,402	10	18,412
Madagascar.....	1,134	.....	1,134
Portuguese Africa.....	1,504,240	768	1,505,008
Turkey in Africa:			
Egypt.....	494,196	.....	494,196
Tripoli.....	278	.....	278
All other Africa.....	659,579	26	659,605
Total Africa.....	\$18,562,416	\$32,006	\$18,594,424
Grand total.....	\$1,209,931,322	\$28,092,090	\$1,227,023,802

Of the total imports in 1899 Europe furnished 50.76, North America 16.09, South America 12.42, Asia 15.36, Oceania 3.87, and Africa 1.50 per cent.

Of the total exports Europe took 76.33, North America 12.88, South America 2.90, Asia 3.94, Oceania 2.43, and Africa 1.52 per cent.

The value of merchandise received from foreign countries for immediate transit across United States territory in 1899 was \$80,028,446. Of the total value of imports \$33,424,821 came by land in vehicles, \$82,050,118 by sea in American vessels, and \$581,673,550 in foreign vessels. Of the total exports \$83,870,907 went by land, \$78,562,088 in American vessels, and \$1,064,590,307 in foreign vessels. The percentage of the carrying trade taken in American vessels was 12.4 per cent. of the imports and 6.9 per cent. of the exports by sea; of the whole sea-borne trade, amounting to \$1,806,876,063, the proportion of American vessels was \$160,612,206, or 8.9 per cent.

The imports of gold coin and bullion in 1899 amounted to \$88,954,603. The exports were \$27,478,412 of domestic and \$10,043,674 of foreign; total, \$37,522,086, leaving an excess of imports over exports of \$51,432,517 in amount, against \$104,985,283 in 1898, and \$44,653,200 in 1897, and an excess of exports in 1896 amounting to \$78,884,882. The imports of silver in 1899 were \$30,675,056 in coining value, and the exports were \$51,168,770 of domestic and \$5,150,285 of foreign; total, \$56,319,055, an excess of exports of \$25,643,999, against \$24,177,458 in 1898, \$31,413,411 in 1897, and \$31,764,484 in 1896. The value of silver imported in ore in 1899 was \$20,961,270.

Telegraphs.—The telegraph lines of the Western Union Company in 1899 had a total length of 189,856 miles, with 904,633 miles of wire. The number of messages sent during the year was 61,398,157. The receipts were \$23,954,312; expenses, \$18,085,579.

Navigation.—The total number of seagoing vessels under the United States flag in 1899 was 22,728, of 4,864,238 tons, of which 6,837 were steamers, of 2,476,011 tons, and 15,891 sailing vessels, etc., of 2,388,227 tons, the whole being valued at \$215,069,296. There were 357 steamers, of 355,913 tons, and 927 sailing vessels and barges, of 481,316 tons, engaged in the foreign trade; total, 1,284 vessels, of 837,229 tons. In the coasting trade the total number was 19,980, of 3,965,313 tons, of which 6,470, of 2,115,981 tons, were steamers, and 13,510, of 1,849,332 tons, were sailing vessels and barges. The tonnage employed in the whale fisheries was 11,017, of which 4,117 was steam; in the cod and mackerel fisheries, 50,679 tons. In 1899 there were 1,273 vessels, of 300,038 tons, built and registered, of which 439, of 151,058 tons, were steamers, 420, of 98,073 tons, sailing vessels, 13, of 1,411 tons, canal boats, and 401, of 49,496 tons, barges. The tonnage of iron and steel vessels built in 1899 was 131,379 tons, of which steam vessels make 103,018 and sailing vessels and barges 28,361 tons. In 1899 there were 2,614,869 tons owned on the Atlantic and Gulf coasts, 539,937 tons on the Pacific coast, 1,446,348 tons on the Northern lakes, and 263,084 tons on the Western rivers; total, 4,864,238 tons.

The tonnage entered at American seaports from foreign countries in 1899 was 21,963,407, of which 3,359,091 tons were sailing vessels, 974,552 tons being American and 2,384,539 tons foreign, and 18,604,316 tons were steam vessels, 2,358,211 tons being American and 16,246,105 tons foreign. The total tonnage cleared was 22,177,483, of which 3,350,261 tons were sailing vessels, 1,008,363 tons being American and 2,341,898 foreign, and 18,827,222 tons were steam vessels, 2,454,886 tons being American and 16,372,336 tons foreign. The tonnage entered and cleared from the various foreign countries is shown in the following table:

COUNTRIES.	Entered.	Cleared.
Belgium.....	800,537	831,566
France.....	627,255	929,080
Germany.....	1,984,763	2,456,218
Italy.....	748,345	496,789
Netherlands.....	802,064	1,455,756
Spain.....	223,323	143,914
United Kingdom.....	7,624,147	7,304,929
Maritime provinces.....	896,071	957,309
British Columbia.....	1,386,041	1,436,873
Central America.....	332,870	246,406
Mexico.....	455,068	417,906
British West Indies.....	871,040	754,905
Cuba.....	1,194,505	1,063,734
Argentine Republic.....	126,814	253,162
Brazil.....	666,828	274,259
Colombia.....	195,457	184,310
British India.....	123,133	92,339
China and Hong-Kong.....	328,021	351,180
Japan.....	216,945	171,749
Australasia.....	145,507	239,493
Hawaiian Islands.....	270,351	232,642
British Africa.....	106,223	227,970
All other countries.....	1,920,349	1,661,873
Total	21,963,407	22,177,483

The nationality of the foreign tonnage entered and cleared at seaports of the United States from foreign countries during 1899 is shown in the following table:

NATIONALITY.	Entered.	Cleared.
Austrian.....	158,986	187,580
Belgian.....	334,301	331,551
British.....	12,492,296	12,565,280
Danish.....	256,957	265,994
Dutch.....	466,682	448,574
French.....	625,907	343,344
German.....	2,294,216	2,280,229
Italian.....	197,098	263,467
Norwegian and Swedish.....	1,481,456	1,417,391
Portuguese.....	74,414	77,196
Russian.....	72,912	64,639
Spanish.....	263,017	230,925
All other foreign.....	213,522	196,064
American.....	3,352,763	3,463,249
Total	21,963,407	22,177,483

The tonnage entered and cleared at the different seaports is given in the following table:

SEAPORTS.	Entered.	Cleared.
Passamaquoddy.....	189,929	193,300
Portland.....	292,808	314,947
Boston.....	2,129,795	1,872,748
New York.....	7,707,477	7,496,279
Philadelphia.....	1,658,417	1,698,391
Baltimore.....	1,605,090	1,729,302
Newport News.....	895,778	518,871
Norfolk and Portsmouth.....	217,013	432,780
Charleston.....	122,960	96,265
Brunswick.....	270,966	242,924
Savannah.....	318,310	349,769
Pensacola.....	559,189	595,461
Mobile.....	396,187	406,491
Pearl River.....	166,518	173,140
New Orleans.....	1,439,183	1,431,856
Galveston.....	869,160	926,981
San Francisco.....	1,068,051	977,827
Puget Sound.....	997,498	1,114,690
All other seaports.....	1,557,738	1,616,361
Total	21,963,407	22,177,483

Railroads.—There were 2,047 railroads in the United States on June 30, 1898, having an aggregate length of 186,810 miles and operating 247,532 miles of track, which was an increase for the year of 48,039 miles. The number of passengers carried during the year was 501,066,081, an increase of 11,621,483; tons of freight carried, 879,006,307, an increase of 137,300,361 tons. The gross earnings on 184,648 miles of lines were \$1,247,305,621, exceeding those of the preceding year by \$125,235,848. The operating expenses for 1898

were \$817,973,276, an increase of \$65,448,512; net earnings, \$429,352,345, an increase of \$59,787,336. Surplus earnings amounted to \$140,319,421; dividends declared, \$96,240,864. The railroad capital, not including floating debt, amounted to \$10,818,554,031. No dividends were paid on 66 per cent. of the total. The length of railroads in operation in 1899 was 191,310 miles. The cost of construction per mile was \$62,658.

Banking and Currency.—Gold coin was restored to circulation on Jan. 1, 1879, as the result of the resumption act of Jan. 14, 1875. The amount of money of various kinds in the country, including bullion in the treasury, was reported by the Secretary of the Treasury to be on July 1, 1899, as follows:

MONEY.	In Treasury.	In circulation.	Total.
Gold coin and bullion.....	\$988,780,334	\$679,738,050	\$1,668,518,384
Gold certificates.....	1,641,900	32,655,919	34,297,819
Standard silver dollars.....	502,215,656	61,481,426	563,697,082
Silver certificates.....	3,948,897	402,136,617	406,085,514
Subsidiary silver coin.....	5,800,728	69,065,824	74,866,552
Currency certificates.....	1,080,000	20,275,000	21,355,000
United States notes.....	38,329,174	808,351,842	846,681,016
National bank notes.....	3,545,432	287,805,439	291,350,871
Fractional currency.....	956,516	92,561,764	93,518,280
Total money....	\$384,607,840	\$1,449,004,345	\$1,833,612,185
Total certificates.....	6,670,787	455,067,530	461,738,317

The estimated coining value of the gold produced in the United States in 1898 was \$64,463,000; of the silver, \$70,384,485; commercial value of the silver, \$32,118,000. The coinage of the United States mints in 1898 was \$77,985,757 of gold, \$23,034,033 of standard silver dollars, and \$1,124,835 of minor coins; total, \$102,144,625. The reserves held by national banks on Sept. 7, 1899, against \$3,031,500,000 of deposits amounted to the sum of \$890,500,000, or 29.3 per cent., consisting of \$466,300,000 of lawful money, with \$414,100,000 due from agents, and \$10,100,000 of redemption funds.

The banks held \$137,690,618 of gold coin, \$23,152,390 of Treasury certificates, \$148,495,000 of clearing-house certificates, \$8,361,974 of silver dollars, \$6,543,425 of fractional silver, and \$32,578,638 of silver certificates.

The resources and liabilities of 3,595 national banks in operation on Sept. 7, 1899, were reported as follow:

NATIONAL BANK STATEMENT.

Resources:	Amount.
Loans.....	\$2,516,100,000
Bonds for circulation.....	229,600,000
Other United States bonds.....	100,900,000
Stocks and securities.....	320,400,000
Due from banks.....	666,800,000
Real estate.....	30,200,000
Specie.....	398,600,000
Legal tender notes.....	111,200,000
National bank notes.....	20,100,000
Clearing-house exchanges.....	164,800,000
United States certificates.....	16,500,000
Due from United States Treasurer.....	11,500,000
Other resources.....	115,200,000
Total resources.....	\$4,660,300,000
Liabilities:	
Capital stock.....	\$605,800,000
Surplus fund.....	248,400,000
Undivided profits.....	102,100,000
Circulation.....	200,300,000
Due to depositors.....	2,450,700,000
Due to banks.....	928,800,000
Other liabilities.....	114,200,000
Total liabilities.....	\$4,660,300,000

The resources and liabilities of 942 savings banks on July 1, 1899, were reported by the Comptroller of the Currency as follow:

SAVINGS BANK STATEMENT.

Resources:	Amount.
Loans on real estate.....	\$878,126,869
Loans on other securities.....	220,800,466
United States bonds.....	136,930,308
State and other stocks and bonds.....	512,777,336
Railroad bonds and stocks.....	167,996,336
Bank stock.....	36,637,920
Real estate.....	55,469,899
Other investments.....	244,771,495
Due from banks.....	112,667,259
Cash.....	34,651,724
Total.....	\$2,400,831,472
Liabilities:	
Deposits.....	\$2,182,006,494
Surplus fund.....	173,607,848
Undivided profits.....	21,457,150
Capital stock.....	23,560,060
Total.....	\$2,400,831,472

The total number of depositors in 1899 was 5,687,818, and their aggregate deposits were \$2,230,366,954, making the average due to each depositor \$392.13.

Anglo-American Commission.—The joint high commission appointed for the settlement of the outstanding questions between the United States and Canada sat constantly during the early part of the year until Feb. 20, when the meetings were adjourned till August, the commissioners having failed to reach a final agreement on any of the points at issue. The desire of Canadian lumbermen for free entry for their product was opposed by the lumber interests of the United States. The rights of American fishermen in Canadian waters were one of the matters in dispute. But the chief cause of difference was the claim of Canada to a part of the Alaskan shore, on the theory that the outer rim of the islands skirting the shore form the true seacoast, not the edge of the mainland, and that the 30-mile strip ceded by Russia to the United States should be measured therefore from this outer rim, which would give Canada one or more seaports. There were 12 independent questions, each of which the American commissioners wished to discuss and arrange separately. The Canadian commissioners insisted that an informal agreement on all the questions should precede a definite arrangement in regard to any one of them. The British commissioners proposed arbitration of the boundary, which the American commissioners were willing to accept, but not exactly on the same terms as in the Venezuela boundary reference. They objected to different European umpires suggested by the Canadians, who were equally opposed to Mexico, Brazil, or Switzerland, when they were proposed by the Americans; neither would they accept the proposal of a court of 6 jurists, 3 nominated by each party, to decide the question without an umpire. The stipulation that existing settlements on tide waters should in any case continue to belong to the United States was also unacceptable to the British commissioners. The boundary fixed in the Anglo-Russian treaty of 1825 runs from Mount St. Elias, where the meridian 141° west of Greenwich cuts the Pacific coast, to 56° of north latitude, and thence by water to the south end of Prince of Wales island in 54° 45' of north latitude; but nowhere on the mainland was the width to exceed 10 marine leagues. Canada claimed the right to the possession of natural gateways to the interior, such as the Stickeen river, the Taku inlet, and the Lynn Canal, on the theory that the 10-league line was intended to be measured from the ocean and not round the

shores of narrow inlets that indent the coast more than 10 leagues. The most important of these inlets, the Lynn Canal, runs nearly a hundred miles into the mainland. It forms two harbors, on one of which have been built the towns of Dyea and Skagway at the entrances of Chilkoot and White or Skagway passes, which lead to the Klondike mining fields, and over the latter route a railroad has been built 40 miles to the head waters of navigation on the Yukon. Pyramid harbor, the other arm of the inlet, gives access to the Dalton trail, over which 250 miles of land carriage is necessary before navigable water is reached. The Canadians claimed all the landing places, including the American towns, as natural Canadian gateways. The coast was surveyed by joint commissioners in 1895, but the international delimitation of territory was not carried out. The Legislature of British Columbia had already passed a law preventing the acquisition of mining rights by Americans in the recently discovered gold field at Atlin lake, and after the adjournment of the commission the Canadians made a law forbidding the export of logs, although Americans owned a great deal of standing timber in Canada, which they were accustomed to export in the form of logs to be sawed in mills that they had constructed for the purpose. Negotiations on the Alaska question were carried on direct between the British and American governments, and a proposition made by the Secretary of State was regarded as acceptable by Lord Salisbury, especially after a further concession had been obtained. The Canadian Government, however, rejected it, and the British Foreign Minister thereupon not only withdrew his provisional acceptance, but refused to proceed with the revision of the Clayton-Bulwer treaty regarding Nicaragua until Canadian claims in Alaska were satisfied. Before separating, the commissioners had signed a protocol fixing a provisional boundary at the summits of the White and Chilkoot passes, and leaving the provisional boundary on the Dalton trail and further details of a *modus vivendi* to be arranged, if possible, by direct negotiation. The death of Lord Herschell and Nelson Dingley, and the resignation of Senator Gray, necessitated changes in the commission, in which the British representatives were Lord Russell, Sir Wilfrid Laurier, Sir Richard J. Cartwright, Sir Louis G. Davies, John Charlton, and Sir James S. Winter, and the American representatives were Senator Charles W. Fairbanks, Charles J. Faulkner, Sereno E. Payne, John W. Foster, John A. Kasson, and T. Jefferson Coolidge. Before Aug. 2, when the joint high commission was to meet again, it was agreed to postpone the meeting indefinitely. A proposal for a lease of a port on the Lynn Canal to Canada, first made by the American commissioners, was renewed by the English Government. A provisional boundary on the Dalton trail was agreed upon, and a *modus vivendi* was signed on Oct. 20. The arrangement does not give Canadians access to the head of the Lynn Canal on their own territory, nor even a free port under American sovereignty. The provisional boundary running along the summits of the White and Chilkoot passes is protracted by an undefined line to a point on the Dalton or Chilkat route about a mile and a half above the village of Klukwan. This is 22 miles above tide water at Pyramid harbor, and is even north of the head of canoe navigation. The line begins on the west at a peak west of Porcupine creek; thence running to the Klehini river in the direction of the peak north of the river, it follows the right bank of the Klehini to its junction with the

Chilkat river at the point above mentioned, whence it runs to the summit of the peak east of the Chilkat river. Persons proceeding to or from Porcupine creek are to be freely permitted to follow the trail between the creek and the junction of the rivers into and across the territory on the Canadian side of the temporary line wherever the trail crosses to that side, and, subject to reasonable regulations of the Canadian Government, for the protection of the revenue, may carry with them such goods as they desire, without payment of customs duties. It is understood that citizens or subjects of either power found within the temporary jurisdiction of the other shall suffer no diminution of the rights and privileges that they previously enjoyed. The fixing of the provisional boundary is without prejudice to the claims of either party in the permanent adjustment of the international boundary.

Supreme Court.—At the close of the October term, 1897, 316 cases were not disposed of. The number of cases docketed at the October term, 1898, was 523, making the total number pending at that term 839, and of this number 531 cases were disposed of during the term. The number actually considered by the court was 468, of which 255 were argued orally and 213 submitted on printed arguments.

Keck vs. United States, decided Jan. 9, 1899. Herman Keck, charged with smuggling diamonds, was held not guilty as charged. The case involved the construction of a paragraph in the Wilson tariff act, under which it was contended that it was intended to admit diamonds free, because a semicolon follows the word "diamonds" in the paragraph. Diamonds were held subject to duty. In this case the attempt at smuggling was not completed. The court held that mere acts of concealment of merchandise on entering the waters of the United States do not, taken by themselves, constitute smuggling or clandestine introduction. Justices Brown, Harlan, Brewer, and Chief-Justice Fuller did not concur in the opinion, especially in reference to the definition of smuggling which required that the goods shall be actually unladen and carried upon shore.

The case of **Allen vs. Smith**, decided March 6, 1899, involved the question of title to the bounty on sugar under the act of Oct. 1, 1890, and the subsequent act of March 2, 1895. The court said: "Bounties granted by a government are never pure donations, but are allowed either in consideration of services rendered or to be rendered, objects of public interest to be obtained, production or manufacture to be stimulated, or moral obligations to be recognized. To grant a bounty irrespective altogether of these considerations would be an act of pure agrarianism; and to determine who is entitled to the benefit of the bounty is but little more than to determine who has rendered the consideration."

In **United States vs. Buffalo Natural Gas Fuel Company** it was held that natural gas brought in pipes under Niagara river and used for fuel and for illuminating should be admitted free of duty, as it comes under the head of a crude mineral or crude bitumen.

In **Scott vs. United States**, Scott was a letter carrier, charged with purloining money. It was held that a decoy letter, addressed to a fictitious person, mailed for the purpose of discovering frauds of a letter carrier, was to be treated as a real letter, intended to be conveyed by the mail, within the meaning of the statutes on that subject. It is the same to all outward appearance as other letters, and the duty of the carrier who takes it is the same.

In *Home for Incurables vs. Noble* it was held that in cases of wills the intention must prevail over the words. A court of equity has power to correct mistakes apparent on the face of the will. In the case in question Mrs. Mary Ruth made a bequest of \$5,000 to the hospital of the University of Pennsylvania, and then devised the remainder of her estate to the Home for Incurables, of New York. She made a codicil revoking the "bequest of \$5,000 to the Home for Incurables and bequeathing that amount to Emeline Colville." The court held that the designation of the home in the codicil was incorrect, and that the intention of the testator was to divert the bequest made to the Pennsylvania institution to Mrs. Colville.

Holmes vs. Hurst was a bill in equity by the executor of the will of Oliver Wendell Holmes, praying for an injunction against the infringement of the copyright of *The Autocrat of the Breakfast Table*. The infringement consisted in selling copies of the several parts as they were published in the *Atlantic Monthly*. It was held that a copyright on a book the contents of which have been published serially without being previously copyrighted is invalid.

The cases *Nicol vs. Ames, in re Nichols, Skillen vs. Ames, and Ingwersen vs. United States* (173 U. S., 509) were brought to determine the constitutionality and construction of that provision of the war revenue act of 1898 which levies a tax upon each sale, agreement of sale, or agreement to sell any products or merchandise at any exchange or board of trade or other similar place. The cases of *Nicol vs. Ames, in re Nichols, and Skillen vs. Ames* grew out of transactions on the Chicago Board of Trade. The court held that the law taxing sales of merchandise on such an exchange was valid. It was held that the tax was not upon the property sold and can not, on that ground, be found to be a direct tax within the meaning of the Constitution. The general objection on the ground of want of uniformity was not considered well founded. In the case of *Ingwersen vs. United States* the sole question was whether the Union Stock Yards, of Chicago, came within the act as being "an exchange of board of trade or other similar place," and the court held it did.

The suit *Cosgrove vs. Winney* involved a construction of the treaty between Great Britain and the United States. *Cosgrove* was extradited from Canada and brought before a police court in Detroit on the charge of larceny, gave bail for his appearance, and returned to Canada. Before the time fixed for trial he returned to Detroit voluntarily, and was arrested for an offense for which he was not extraditable. It was held that he retained the right to have the offense for which he was extradited disposed of and then to depart in peace, and his arrest could not be sustained.

The case of the *Addyston Pipe and Steel Company vs. the United States* was decided Dec. 4, 1890. This case was brought under the Sherman antitrust act of July 2, 1890, and an injunction had been asked to enjoin six corporations engaged in the manufacture of water and gas pipe, which composed the combination, from continuing to do business under the agreement by which they had divided the territory of the United States among themselves, and by which they had arranged to fix prices. The court affirmed the decision of the Circuit Court of Appeals against the corporation, and established the principle that Congress can regulate trusts that do an interstate business.

In *Blake vs. McClung* the validity of certain provisions of a statute of Tennessee, whose object was to secure the development of the mineral resources of the State and facilitate the introduction of foreign capital, was involved. It is not in the power of one State, when establishing regulations for the conduct of private business of a particular kind, to give its own citizens essential privileges connected with that business which it denies to citizens of other States. Such discrimination against citizens of other States is repugnant to sec. 2, Art. IV of the Constitution, although, generally speaking, the State has the power to prescribe the conditions upon which foreign corporations may enter the territory for purposes of business.

In the trial of *Lake Shore and Michigan Southern Railway Company vs. Smith* it was held that the act of the Legislature of Michigan providing that 1,000-mile tickets shall be kept for sale at the principal ticket offices of railroad companies at a certain price, and when presented by any other than the person or persons named therein such tickets shall be forfeited to the railroad company, and that such tickets shall be valid for two years only, and if not wholly used within that time providing for redemption and a charge of three cents a mile for the portion used, was unconstitutional.

A decision was handed down by Justice Harlan, in the case of *Lake Shore and Michigan Southern Railway Company vs. Ohio*, construing the constitutionality of the law of Ohio regulating the stoppage of through trains at stations in the State. The law requires that any railroad company in the State shall have at least three trains a day (if so many are run) stop at any place on its line containing more than 3,000 inhabitants. The action was begun against the company because of its refusal to obey the law. The company contended that the statute was antagonistic to the Constitution in that it interfered with commerce between the States. The court held this contention to be unfounded, saying that the question involved was only that of subserving the public convenience, and that the State had a right to legislate to that end. Justices Shiras, Brewer, and Peckham dissented.

The case of *Cummings and others vs. the Board of Education of Richmond County, Georgia*, involved the right of the board to establish a high school for whites in Augusta without also establishing a high school for colored children. The case was based upon the petition of colored people of the county, who asked that an order be issued compelling the board either to give their children the advantages of a public high school or to refrain from carrying on a white high school for the support of which the petitioners are taxed. The case attracted considerable attention. The decision was adverse to the colored people, as the court failed to see that there was any violation of the fourteenth amendment to the Constitution.

There was a libel *in rem* against the British steamship *Elfrida*, to recover \$22,000, with interest and costs, claimed to be due for services rendered in the performance of a salvage contract. Many cases in this country and in England, where salvage contracts have been set aside and compensation awarded in proportion to the merits of the services, were examined, and the principles governing the subject were stated. Where no circumstances exist which amount to a moral compulsion, such a contract should not be held bad simply because the price agreed to be paid turned

out to be much greater than the services were actually worth. On the Continent of Europe the courts appear to exercise a wider discretion, and to treat such contracts as of no effect if made when the vessel is in danger, but this was not accepted as expressing the true rule on the subject.

The case of the *Olinde Rodrigues* was the first prize case by the Spanish-American War that was considered by the Supreme Court. It grew out of the capture by the cruiser *New Orleans* of the French vessel *Olinde Rodrigues* for an attempted violation of the blockade of the port of San Juan, Porto Rico. The principal question determined by the court was that the blockade of San Juan was effective, although maintained by one modern cruiser alone.

The court decided in the naval prize-money case growing out of the capture of the Spanish steamer *Buena Ventura* that the condemnation of the vessel was illegal, and ordered the proceeds of the sale of the vessel be turned over to the owners. This decision turned upon the construction of the clause of the President's message of April 26, 1898, exempting Spanish vessels in American ports from the operation of the proclamation of war until May 21. It was shown that the *Ventura* had left an American port seven days before the presidential proclamation was issued, and that it was captured on the same day on which the proclamation appeared. It was held that the President's proclamation applied to vessels under this condition, and that on this account the *Ventura*, though owned by a Spanish house, was exempt. Justices Gray and McKenna dissented.

The Chief Justice delivered the opinion of the court in the cases of the *Pedro* and the *Guido*, and the condemnation of these vessels was affirmed. Four of the nine members of the court united in a dissenting opinion in the *Pedro* case. The *Pedro* left Antwerp in March, 1898, with a cargo for Cuban ports, with the intention of afterward proceeding to the United States for a cargo of lumber for her return voyage. She reached Havana on April 17, and on the 22d took her departure for Santiago, Cuba, and was captured the same day by the cruiser *New York* and duly condemned. The Chief Justice held that war had been practically declared on the 21st, and that the officers of the vessel must have known this fact. He dwelt upon the fact that the vessel was proceeding from a port of the enemy when overtaken, and contended that the case did not come under any of the exemptions of the President's message.

The court affirmed the opinion of the Court of Claims in the case of the claim of *La Abra Silver Mining Company* against the republic of Mexico, holding that claim to be fraudulent and unfounded. The claim was for about \$4,000,000.

Railways.—The latest report issued by the statistician to the Interstate Commerce Commission shows that on June 30, 1898, the total length of the railway systems of the United States was 186,396.32 miles. Unofficial records, very carefully and intelligently kept by the editors of the *Railway Age*, show that 6,337.10 miles were constructed during the eighteen months that began July 1, 1898; making a total mileage of 192,733.42 on Dec. 31, 1899. On June 30, 1898, there were also 11,293.25 miles of second track, 1,009.65 miles of third track, 793.57 miles of fourth track, and 48,039.73 miles of yard track and sidings; making a total trackage, at that time, of 247,532.52 miles. Of the 186,396 miles

of railway, 51,577.37 miles, or 27.67 per cent., were in the region north of the Potomac and Ohio rivers and east of Lake Michigan and the Indiana-Illinois State line; 33,472.57 miles, or 17.96 per cent., were south of the Potomac and Ohio rivers and east of the Mississippi, 41,316.97, or 22.16 per cent., were west of Lake Michigan and the Indiana-Illinois State line and north and east of the Missouri river; 44,971.17, or 24.13 per cent., were west of the Missouri and Mississippi rivers and east of the Rocky mountains; and 15,058.24 miles, or 8.08 per cent., were on the Pacific slope. The increase in railway mileage during each year (ending June 30), beginning with 1890, was as follow: In 1890, 5,838.22 miles; in 1891, 4,805.69 miles; in 1892, 3,160.78 miles; in 1893, 4,897.55 miles; in 1894, 2,247.48 miles; in 1895, 1,948.92 miles; in 1896, 2,119.16 miles; in 1897, 1,651.84 miles; in 1898, 1,967.85 miles; in 1899, 3,197 miles; total, 31,834.49 miles.

The location of recent construction indicates in a measure the state of economic development attained in certain sections. During the calendar year 1899 there were constructed 4,500.10 miles of new railway line, of which 582.66 miles were in Iowa, 368.84 miles in Minnesota, and 269.48 miles in Arkansas. No other State had more than 200 miles of new line. Between 150 and 199 miles were built in Pennsylvania, South Carolina, California, Idaho, Louisiana, and Oklahoma; from 100 to 149 in Alabama, Florida, Georgia, Illinois, Michigan, Mississippi, New Mexico, and Utah; from 50 to 99 miles in Indiana, Missouri, Nebraska, North Carolina, Ohio, Texas, Virginia, Washington, Wisconsin, Wyoming, and Indian Territory. No new railway was constructed in South Dakota, Nevada, Delaware, New Hampshire, or Rhode Island. The 6 New England States, which may now be regarded as fully supplied with railways, had but 75.50 miles of new line.

The preliminary report of the statistician to the Interstate Commerce Commission for the year ended June 30, 1899, shows that the gross railway receipts from operations in that year were \$1,307,253,484, of which \$360,227,319 were from passenger and \$913,358,488 from freight service. The operating expenses for the same period were \$852,428,105, and the taxes were \$44,165,714; consequently there was a balance of \$410,659,665, to which must be added \$49,176,168, receipts from other sources than operation. The necessary deductions from income, including interest on bonds, amounted to \$326,852,804; \$82,214,820 were distributed as dividends (not including payments by subsidiary companies); and \$50,768,209 accumulated as surplus.

The traffic of 1899 was probably heavier than any that was ever before carried, but it was taken at the lowest rates ever known. The average rate per passenger per mile in 1898 was 1.973 cent, and the charge per ton per mile was 0.753 cent. Similar averages for 1899 are not yet available, but that they were considerably lower is unquestionable. The average ton-mile rate obtained by the Pennsylvania Railway during the year ended June 30, 1899, was but 0.469 cent, and that of the Baltimore and Ohio Railroad was 0.458 cent.

Recent improvements in railway facilities have had the effect of notably increasing the efficiency of the railway train as a machine for moving passengers and property. This has been accomplished by increasing the size of cars and locomotives, decreasing the proportion of dead weight to paying weight in the train, reducing grades, increasing the radii of curves, using heavier rails,

supplying better yard and side-track arrangements, and increasing the number of tracks. The freight cars now building have a capacity of 30 to 50 tons of freight, and steel is rapidly being substituted for wood as their principal material. An American establishment that manufactures more locomotives than any other concern in the world reports that the average weight of a locomotive in 1890 was 92,370 pounds, and in 1899 it was 128,920 pounds. Another American manufacturer reports an increase of 47 per cent. since 1891. The result of these improvements is expressed by the average train load, which was 175.12 tons in 1890 and 228.45 tons in 1898.

The year 1899 was remarkable on account of the general maintenance of harmonious relations among the great railway systems and the observance of published rates. While due in large measure to the abundant traffic and widespread prosperity, this condition is also attributable to the increased influence of the Interstate Commerce Commission and a growing recognition on the part of railway managers and owners of the public value of reasonable statutory regulation of railway transportation.

UNITED STATES, FINANCES OF THE.
During the year ending June 30, 1899, the net ordinary receipts of the Government, including those of the postal service, amounted to \$610,982,004, being considerably more than before received for any one year—except for 1866, when they were slightly exceeded. The increase above the amount of the preceding year was \$116,648,050. From internal-revenue sources alone the increase of the year amounted to \$102,536,520, of which nearly \$7,000,000 was due to an increase in the tax on distilled spirits, \$16,000,000 on manufactured tobacco, \$29,000,000 on fermented liquors, and \$43,000,000 to the stamp taxes. Only \$11,998,314 was received on account of the indebtedness of the Central Pacific Railway.

There was an increase in the receipts from the postal service of \$6,008,766. None of the usual sources of receipts showed any decrease.

Owing to the expenses incident to the war with Spain the expenditures of the Government for the year under consideration were greatly increased, the total of such expenditures not having been exceeded since the war of the rebellion; and despite the greatly increased receipts there was a

RECEIPTS.

SOURCES.	YEAR ENDING JUNE 30,	
	1899.	1898.
Customs	\$305,198,498	\$149,575,088
Internal revenue	273,437,162	170,900,541
Sale of Union Pacific Railroad		58,448,284
Sale of Kansas Pacific Railroad		8,808,000
Profit on coinage, bullion, deposits, etc	6,164,356	4,766,470
District of Columbia	4,016,623	2,698,298
Sinking fund for Pacific railways	874,887	781,987
Fees, consular, letters patent, and land	2,306,436	2,689,751
Customs fees, fines, penalties, etc	698,072	578,468
Tax on national banks	1,912,421	1,975,849
Navy Pension and Navy Hospital funds	1,342,564	1,146,590
Payment of interest by Pacific railways	441,347	596,396
Sales of Indian lands	1,476,175	578,697
Sales of public lands	1,578,347	1,343,129
Immigrant fund	398,439	308,998
Miscellaneous	15,310,711	1,870,805
Postal service	95,011,364	89,012,619
Total ordinary receipts	\$610,982,004	\$494,333,954
Loans and Treasury notes	582,490,730	323,227,920
Gross receipts	\$1,193,472,734	\$817,561,874

deficiency of \$89,111,559. This deficiency was met by the sale of about \$200,000,000 3-per-cent. bonds at par, thus not only providing for the deficiency, but adding an increase to the cash of the Treasury of more than \$100,000,000, greatly strengthening the financial condition of the Government.

The operations in detail are shown below, compared with like items for the previous year:

EXPENDITURES.

OBJECT.	YEAR ENDING JUNE 30,	
	1899.	1898.
Civil	\$94,692,549	\$94,080,809
Foreign intercourse	12,694,080	2,485,881
Military establishment:		
National defense	8,899,298	7,084,112
Pay department	69,397,083	31,008,281
Commissary department	17,303,268	5,922,441
Quartermaster's department	81,691,263	18,812,118
Medical department	2,069,067	880,671
Ordnance department	9,893,410	2,587,054
Armament of fortifications	5,395,478	4,431,513
Gun and mortar batteries	2,336,643	2,392,597
Improving rivers and harbors	16,092,849	30,765,060
Expeditionary force to Cuba		500,084
Signal service of the army	373,419	85,196
Support of national homes	2,055,788	2,300,894
Other items	12,336,998	4,225,749
Naval establishment:		
National defense	6,197,701	30,622,415
Pay, etc., of the navy	11,410,984	8,991,667
Marine corps	1,880,464	1,174,974
Ordnance	4,271,101	1,682,784
Equipment	4,682,491	1,842,122
Yards and docks	2,449,409	1,774,571
Medicine and surgery	340,443	300,861
Supplies and accounts	3,708,008	2,349,543
Construction and repair	7,871,870	2,008,220
Steam engineering	2,445,043	1,426,418
Increase of the navy	10,277,212	10,762,289
General account of advances	118,085	2,365,702
Vessels for auxiliary naval forces	372,835	252,010
Other items	5,499,212	1,545,308
Miscellaneous:		
Public printing and binding	2,982,784	2,922,678
Assessing and collecting internal revenue	4,227,461	2,615,686
Mint establishment	1,235,284	891,486
Bounty on sugar		1,066,738
Collecting customs revenue	7,451,020	7,225,291
Revenue-cutter service	1,040,566	1,068,478
Life-saving service	1,522,895	1,537,740
Marine hospital establishment	768,042	709,284
Lighthouse establishment	2,118,893	2,331,255
Engi	1,612,286	1,129,282
Cust	2,861,194	2,760,695
Pay	989,591	989,999
Fuel		
bu	891,395	891,391
Furn		
lic	442,192	200,934
Stak		
road		4,549,285
District of Columbia	6,730,089	6,319,796
Deficiency in postal revenues	8,211,870	10,804,040
Department of Agriculture	2,454,214	2,254,101
Weather Bureau	1,059,000	889,207
Indiana	12,805,711	10,994,697
Pensions	129,894,929	147,452,369
Interest on public debt	29,899,225	27,596,065
Postal service	85,021,364	89,012,619
Other items	22,535,672	15,187,099
Total ordinary expenditures	\$700,089,564	\$652,481,508
Redemption of public debt	241,149,999	261,219,549
Gross expenditures	\$1,041,239,563	\$913,701,044

Of the debt having an equivalent reserve there has been an increase in gold certificates during the last calendar year of nearly \$150,000,000. These certificates circulate as money, and their issue has to a large extent been a net increase of the circulating medium. The increase of gold in the country has been due to an increased domestic production, and to unusual heavy importations of that metal made necessary to meet the payments for goods exported largely in excess of those imported.

The following table shows the changes during the calendar year in the debt with equivalent reserve:

DEBT WITH EQUIVALENT RESERVE.	OUTSTANDING DEC. 31,	
	1899.	1898.
United States notes (greenbacks).....	\$100,000,000	\$100,000,000
Treasury notes (1890).....	88,880,280	96,528,280
Currency certificates (1872).....	12,350,000	20,685,000
Gold certificates.....	184,844,619	86,808,999
Silver certificates.....	401,464,504	399,430,504
Total.....	\$787,479,408	\$653,447,788

A report of the issue of the bonds on account of the Spanish war loan had already been made, hence the statement of the debt bearing interest shows but little change for the last calendar year. In the aggregate a reduction is shown owing to the purchase during the year of a considerable amount of the interest-bearing debt.

The following table shows in detail the changes in the debt without reserve during the calendar year:

DEBT WITHOUT RESERVE.	OUTSTANDING DEC. 31,	
	1899.	1898.
Funded loan continued at 3 per cent.....	\$25,364,500	\$25,364,500
Funded loan of 1907, 4 per cent.....	545,366,550	559,650,300
Refunding certificates, 4 per cent.....	37,170	39,100
Loan of 1904, 5 per cent.....	95,009,700	100,000,000
Loan of 1925, 4 per cent.....	162,315,400	162,315,400
Ten-twentieths of 1898.....	198,079,000	192,848,780
Old loans matured.....	1,308,500	1,287,300
Old demand notes.....	53,847	53,997
United States notes (greenbacks).....	246,681,016	246,681,016
National bank redemption account.....	33,299,218	28,868,814
Fractional notes.....	6,899,559	6,899,974
Total.....	\$1,317,895,460	\$1,323,940,981

Owing to the increase of gold in the country as above stated the amount of money in circulation has been in the aggregate considerably increased the last year as will be seen by the following comparative table:

CIRCULATION OUTSIDE OF THE TREASURY.	IN CIRCULATION DEC. 31,	
	1899.	1898.
Gold coin.....	\$617,977,830	\$667,796,579
Standard silver dollars.....	70,480,047	65,183,553
Subsidiary silver.....	78,651,321	70,627,818
Gold certificates.....	161,122,797	35,300,259
Silver certificates.....	395,040,816	392,831,995
Treasury notes (1890).....	86,934,351	94,942,741
United States notes (greenbacks).....	318,269,365	313,415,738
Currency certificates (1872).....	11,980,000	20,465,000
National bank notes.....	242,001,643	238,357,729
Total.....	\$1,980,898,170	\$1,897,301,412

The aggregate of the cash assets of various kinds held by the Treasury for various purposes exceeds \$1,000,000,000, perhaps the greatest accumulation of money in the world. Of this amount only about \$283,000,000 was in the general Treasury balance subject to the draft of the United States Treasurer, and of that amount \$100,000,000, represented by gold coin, was held as a fund for the redemption of United States notes under the resumption act.

The following table shows the assets and liabilities at the end of the calendar years 1888 and 1899:

ITEMS.	YEAR ENDING DEC. 31,	
	1899.	1898.
Liabilities:		
Gold certificates.....	\$184,844,619	\$86,808,999
Silver certificates.....	401,464,504	399,430,504
Currency certificates (1872).....	12,350,000	20,685,000
Treasury notes (1890).....	88,880,280	96,528,280
Redemption national bank notes.....	2,855,486	9,451,181
Public disbursing officers.....	64,891,004	68,538,257
Outstanding checks and drafts.....	3,214,694	3,229,435
General Treasury balance.....	259,585,453	294,764,695
Total.....	\$1,048,006,042	\$890,431,351
Assets:		
Gold coin or bullion.....	\$398,032,027	\$381,729,435
Silver dollars or bullion.....	494,208,339	497,252,512
United States notes.....	28,411,632	34,265,278
Treasury notes (1890).....	1,855,229	1,580,529
National bank notes.....	4,275,560	5,480,140
Balances in national bank depositaries.....	87,808,173	94,880,916
Gold certificates.....	22,721,522	1,608,740
Silver certificates.....	6,423,698	7,098,509
Bonds and interest checks paid.....	554,043	35,667
Currency certificates (1872).....	370,000	220,000
Minor coins and fractional notes.....	317,899	329,272
Subsidiary silver coins.....	2,992,400	5,269,343
Total.....	\$1,048,006,042	\$890,431,351

During the last calendar year there was a great increase in the coinage of both gold and silver, as will be seen by the following comparative table:

CHARACTER.	VALUE.	
	1899.	1898.
Gold—		
Double eagles.....	\$75,860,860	\$46,974,460
Eagles.....	12,768,920	9,981,620
Half eagles.....	19,487,110	7,680,325
Quarter eagles.....	60,890	48,550
Total gold.....	\$108,177,180	\$64,634,955
Silver—		
Standard dollars.....	\$18,254,709	\$10,002,780
Half dollars.....	3,216,630	2,303,895
Quarter dollars.....	3,907,177	2,644,900
Dimes.....	2,343,070	1,444,076
Total silver.....	\$37,721,586	\$16,485,584
Minor—		
Five-cent nickel.....	\$576,987	\$650,767
One-cent bronze.....	379,938	538,717
Total minor.....	\$956,910	\$1,189,484
Grand total.....	\$136,855,676	\$82,009,923

UNIVERSALISTS. The Board of Trustees of the General Convention of this denomination reported to that body, at its meeting in October, the following statistics: Number of parishes, 1,003; of families, 47,411, showing an increase of about 1,200; of church members, 52,177; of members of Sunday schools, 59,179; value of parish property less debt, \$9,623,672; amount of contributions, including those for parish expenses, \$1,105,809. The figures represent an increase of 64.5 per cent. in church membership and 18 per cent. in Sunday-school membership since 1884. The convention was in debt to the amount of \$31,374. It had spent during the past year \$8,934 for the mission in Japan.

The Universalist General Convention met in Boston, Mass., Oct. 19. The opening sermon was preached by President Elmer Hewitt Capen, of Tufts College. The Hon. Charles L. Hutchinson, of Chicago, presided. The most important business was the final adoption of the statement of belief transmitted from the previous General Convention held in Chicago, Ill., in 1898, in the form of a platform of principles instead of a creed. This declaration is as follows:

"The essential principles of the Universalist faith is: The universal Fatherhood of God; the spiritual authority and leadership of his Son, Jesus Christ; the trustworthiness of the Bible as containing a revelation from God; the certainty of retribution for sins; the final harmony of all souls with God."

The declaration was adopted by a vote of 132 to 10. The Rev. Dr. Edward Everett Hale was received as a fraternal delegate from the National Conference of Unitarian and other Christian Churches, and addressed the convention. Resolutions were also received from the American Unitarian Association proposing the appointment of a conference committee of five members from each body, to consider concerning a closer co-operation of the two organizations (see article UNITARIANS for the text of the resolutions). The proposal was adopted by a vote of 101 yeas to 25 nays, and the 5 members of the committee to represent the General Conference were appointed.

URUGUAY, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 19 members, 1 from each department, elected by indirect suffrage for six years, and a Chamber of Representatives, containing 69 members, elected for three years by the direct suffrage of all adult male citizens who are able to read and write. The President is elected for four years. Juan Luis Cuestas, who was elected Vice-President, succeeded to the office of President on the assassination of Idiarte Borda, Aug. 25, 1897. The Cabinet at the beginning of 1899 was composed as follows: Minister of War and Marine, Gen. Gregorio Castro; Minister of the Interior and of Justice, Edoardo Maceachen; Minister of Agriculture, Industry, Public Instruction, and Public Works, Jacobo Varela; Minister of Finance, José R. Mendoza; Minister of Foreign Affairs and Worship, Dr. Mendilaharsu.

Finances.—The revenue for 1894 was \$15,376,614; for 1895, \$15,120,941; for 1896, \$16,042,133; for 1897, \$14,257,723; and for 1898, about the same amount. The estimate for 1899 was \$15,973,540, of which customs yield \$10,061,487, property tax \$1,831,689, trade licenses \$890,650, factory taxes \$470,595, the tobacco tax \$463,936, instruction \$427,457, stamps \$369,668, bank profits \$350,000, posts and telegraphs \$260,000, and other sources \$848,064. The total expenditures were estimated at \$15,799,231, of which \$341,114 was for the legislative bodies, \$67,242 for the presidency, \$131,968 for the Ministry of Foreign Affairs, \$2,365,086 for the Ministry of the Interior, \$961,160 for the Ministry of Finance, \$1,124,672 for the Ministry of Public Works, \$1,918,031 for the Ministry of War and Marine, \$5,040,743 for the public debt, \$945,636 for railroad guarantees, \$1,416,407 for pensions, and \$887,173 for various expenses.

Commerce and Production.—The main industry of the country is stock raising. There were 392,246 horses, 15,589 mules, 5,881,402 cattle, and 16,397,484 sheep in 1896, having a total value of 73,038,000. The number of cattle slaughtered in 1897 was 670,900. The wool clip was 33,000 tons. About 300,000 tons of wheat were raised. Of 21,045 farmers, 10,853 owned their farms. Gold mining is carried on in the north, and in the department of Rivera alone 87,336 grammes of the metal were extracted in 1897. Silver, copper, lead, magnesium, and lignite are the other minerals. The annual imports are about \$25,000,000 and exports \$30,000,000. The chief exports are hides and live animals, sent to Brazil, France, Belgium, England, and the Argentine Re-

public. Hides are exported also to the United States, the imports from which country are increasing, consisting of petroleum, lumber, and agricultural implements mainly. The bulk of the imports come from England, the Argentine Republic, Germany, France, and Italy.

Politics.—President Cuestas, who assumed a dictatorship at the beginning of the civil war of 1898, was constitutionally elected on March 1, 1899, after resigning his powers for two weeks into the hands of the president of the Senate. He appointed a new Cabinet, as follows: Minister of War and Marine, Gen. Callorda; Minister of the Interior and Justice, Saturnino Camp; Minister of Agriculture, Industry, Public Instruction, and Public Works, C. M. Peña; Minister of Finance, Dr. Campestegey; Minister of Foreign Affairs and Worship, Herrero y Espinosa. The Chambers voted amnesty for all political offenders. Economies were introduced in all departments of the Government, yet on account of the increase in the debt the budget was barely made to balance, revenue for 1900 being estimated at \$15,977,000 and expenditure at \$15,969,000.

UTAH, a Western State, admitted to the Union Jan. 4, 1896; area 84,970 square miles. The population in 1890 was 207,905; the estimated population in 1895, 247,324. Capital, Salt Lake City.

Government.—The State officers during the year were as follow: Governor, Heber M. Wells, Republican; Secretary of State, James T. Hammond; Treasurer, James Chipman; Auditor, Morgan Richards, Jr.; Attorney-General, A. C. Bishop; Adjutant General, Charles S. Burton; Superintendent of Public Instruction, John R. Park; Coal Mine Inspector, Gomer Thomas; State Engineer, Robert C. Gemmell; Board of Equalization, Robert C. Lund, John J. Thomas, J. E. Booth, and Thomas D. Dee; Board of Labor, John Nicholson, J. S. Daveler; Regents of the University, J. T. Kingsbury, President; Chief Justice, George W. Barch; Board of Agriculture, J. A. Wright, Secretary; State Art Institute, created in 1899, H. L. A. Culmer, President.

Finances.—The State Auditor showed in his report of June 30 that the balance in the general fund would have been a deficit had not a loan of \$50,000 been made to the treasury from the State Bank of Utah. About the middle of July this loan was repaid by an overdraft accommodation of \$10,000, extended by Wells, Fargo & Co., at 4 per cent. annual interest. The warrants issued in July amount to \$95,772.99, including the \$50,000 repaid to the State bank.

Following is the Auditor's statement: Balance on hand Jan. 1, 1899, \$485,031.54; receipts for half year ending June 30, \$261,738.16; total, \$746,769.70; disbursements for half year ending June 30, 1899, \$568,063.01; balance in treasury June 30, \$178,706.69, distributed to the several funds as follows: State land accounts, \$131,867.29; general fund, \$40,678.91; district school fund, \$6,112.58; trust funds, \$47.91; total, \$178,706.69; warrants outstanding June 30, \$22,970.84; balance less outstanding warrants, \$155,735.85.

The total number of failures for 1899 was 149; total assets, \$141,139; total liabilities, \$329,025; for 1898, total number, 127; total assets, \$189,697; total liabilities, \$468,182.

Valuation.—The total raw products of the farm for 1899 were \$7,280,000; total finished products as butter and cheese, wool and mutton, cattle, poultry, etc., \$8,724,000; from which deduct the value of food consumed to produce them, \$2,500,000, and the total farm products were valued at \$13,504,000; total assessed valuation of all

property in the State, \$87,361,254; total value of live stock taxed, \$7,238,085; number of animals, 1,835,051; total assessed valuation of all railroads in the State, \$11,914,287; value of street car companies alone, \$350,327; value of telegraph lines, \$92,058; telephone property, \$144,726; tax levy for State purposes, 4½ mills; for schools, 3 mills; making a total of 7½ mills.

Beet Sugar.—The Utah County Factory, at Lehi, paid the farmers in 1899 for beets \$243,000. The average was 4,400, and the tons produced 52,625. The report for the year ending March 1, 1899, showed that 43,111 tons of beets were worked last year, 11.49 per cent. of sugar was extracted, and 9,999,950 pounds of sugar was produced. The sum of \$191,126.84 was paid for beets, \$38,421.20 was paid for labor, and \$58,318, or 25 per cent., was paid in dividends to the stockholders. The sale of sugar and pulp, including sugar on hand, amounted to \$516,437.90, an increase of \$95,000 over the previous year. The chief item of expense was in putting in the Osmore process for extracting the sugar from the low products. This yielded a profit of \$19,000.

On Oct. 26 the first branch sugar factory to be built in the United States was opened at Springville, 24 miles from Lehi. The juice is extracted from the beets at the Springville branch and piped to Lehi through a 5-inch pipe. The Ogden factory the past year paid to farmers about \$150,000 for beets delivered at the factory. About 3,000 acres were devoted to the raising of these beets, and the number of tons harvested was about 31,000. The pulp sells readily to the farmers at 50 cents a ton. Farmers report it as a very satisfactory fattening food for stock.

Bounties.—Summit County's clerk sent a verified claim against the State for reimbursement for half of the amount of \$1,234.02, paid in May and June for scalps of destructive wild animals. Deducting \$5.25 for bounty on 7 coyotes, the remainder represented the premium on 81,958 squirrels at 1½ cent each.

The claim of Utah County for bounty paid on muskrats, gophers, pelicans, fishhawks, loons, squaks, fish ducks, and English sparrows for the first six months of the year amounted to \$877.32.

Irrigation.—After ten years of labor, the Hill's Canal and Irrigation Company completed its task, in April, 1899, and about 10,000 acres of land, the most fertile in eastern Utah, will be reclaimed. A vast quantity of water is yearly permitted to flow into the Gulf of California by way of Price river, which this enterprise will employ in the upbuilding of Castle valley.

Crops.—The growing of alfalfa seed has become an important industry in Utah. Fifty dollars an acre is easily made in raising seed for the market. In 1898 125 car loads of seed were shipped out of the State, which, at 5 cents a pound, netted the farmers \$187,500. The demand came from all over the United States, and from France, Germany, and Australia. The value this year of the seed produced is \$200,000.

"Alfalfa honey" commands the highest price.

Sorghum is produced in Utah. The value of the output is about \$50,000. Wine, cider, and vinegar show an output of \$50,000 more. Dried apples, peaches, plums, and apricots are worth from \$50,000 to \$75,000 a year.

"Utah beats the world for potatoes," is an old saying that has never been successfully challenged. The annual production is about \$400,000.

The yield of wheat for Utah in 1899 was 3,736,454 bushels, the yield per acre being 20.7 bushels. The yield for 1898 was 5,105,184, valued at \$2,756,799, the yield per acre being 28 bushels.

The Utah factories canned 90,000 cases of tomatoes this year, a case containing 24 cans of 2½ pounds.

Utah oats averaged during the past six years 34.6 bushels an acre, worth \$12. The year 1898 shows the highest yield, also the highest average value, being 39.7 bushels, worth \$15.09.

Dairying.—In 1890 there were 3 factories in the State; to-day there are about 60 modern butter and cheese factories, representing an investment of \$200,000. The factory output in butter and cheese during the year was estimated at \$700,000, and the by-products of these factories—skim milk and whey—at between \$100,000 and \$150,000.

Fish and Game.—The Fish and Game Warden shipped 110,000 mountain graylings from Elk creek, Montana, to the fish hatchery near Murray, Utah, in June. In 1898 150 small bass fry and 200 spawning fish were taken from Utah lake to stock private ponds in the State. By a proclamation of Feb. 10 the President of the United States set aside a reserve of 75,000 acres of land known as Fish Lake plateau in Sevier County. After June 15, midnight, the law prohibiting angling for trout expires, but fishing in closed streams is unlawful. A new hatchery was located in June on 5½ acres of land in Big Cottonwood cañon. Elk, antelope, and mountain sheep are nearly extinct in the State. The feathered wild game, except the California quail and a few Eastern quail, are rapidly disappearing. The Dixie quail are found in large numbers in Washington and Kane Counties. The pheasant or ruffed grouse, the prairie chicken, and the sage hen are becoming scarce. There were 130 arrests for violations of fish and game laws, and 104 convictions, in 1897 and 1898, with \$457.70 fines reported.

Insane Asylum.—The number of patients in the asylum Sept. 30 was: males, 153; females, 148; total, 301. Admitted during month: males, 2; females, 3; total, 5. Under treatment: males, 155; females, 151; total, 306. Discharged during month: males, 3; females, 4; total, 7. Remaining Oct. 31: males, 152; females, 147; total, 299. Balance on hand Oct. 1, \$153.04; received during month, \$3,143.06; disbursed, \$3,097.45; balance on hand Nov. 1, \$385.58.

Land.—The amount received from the sale of land during 1898 was \$196,319.29; amount invested, \$419,688.35; on hand for investment Jan. 1, 1899, \$37,265.95; number of preferred claims filed, 1,936; number of acres offered and sold April 9, 636.11; number offered May 14, 5,000 acres, sold 1,880; number offered Dec. 1, in Iron County, 16,939 acres, sold 560; offered in Sanpete County, 16,649.95, sold 2,513.44; offered in San Juan County, 32,659.63 acres, sold 2,400; number of acres of school land appraised for the year, 102,655.19, value \$122,821.31. Eastern Utah is at last rid of its greatest plague spot, the notorious "strip" that lies between the Uintah and the Uncampahgre reservations, one and a half miles east of Fort Duchesne. When the surveys were made for these two reservations this strip of land was left out of both, and later became a kind of no-man's land. It is triangular, 3 miles long at its narrowest and 6 miles at the widest point. It contains vast deposits of asphaltum. During the year 106 applications to lease were filed, covering 127,846.33 acres of land, and from these 71 leases were executed, embracing 66,698.63 acres, the appraised value being \$86,458.85, and the annual rental \$1,742.56.

Militia.—The 250 men of the Utah artillery sailed from Manila for home on July 1, leaving

25 men behind, a majority of whom re-enlisted. By a proclamation of the Governor, Aug. 19, 1899, was made a legal holiday "for the purpose of general thanksgiving and rejoicing," and that all the people might join in welcoming home the brave men who volunteered to serve their country in time of war.

Mining.—Utah is third on the list of the silver-producing States, having an output of \$9,496,969 in 1899, and sixth among gold-producing States, having an output of \$3,369,509 in gold. Utah's output of copper in 1898 was 3,750,000 pounds, with an increase in 1899. Wolfram or tungstic ocher was found in the Deep Creek district, and as it is very scarce in the markets of the world it will become a valuable find when railroad facilities permit of its transportation. In 1898 more than 673,297 tons of coal were produced in the State. In the year there were 3 fatal and 14 nonfatal accidents in the coal mines. Utah's total production of coal in 1898 was 673,297 short tons; cash value, \$784,787.42.

Mothers' Congress.—The Mothers' Assembly of Utah, familiarly known as the "Mothers' Congress," began its second annual meeting in Assembly Hall, April 10. Kindergarten work, heredity and environment, and the relations between the mother, the child, and the state, engaged most of the attention of the ladies present for the first day's sessions. There was a large attendance, especially at the evening session, many delegates being present from various towns.

Education.—On Jan. 9, 1899, the State Superintendent apportioned the sum of \$246,014.48 for 83,113 children of school age, thus giving for each child \$2.96. On Dec. 31, 1899, there was \$250,245.87 from tax collections in the treasury available for apportionment among the 84,419 children of school age in the State. In Salt Lake County 87 per cent. of the children of school age attended school. The value of the property controlled by the trustees was \$183,961.65. Three new buildings were erected in 1899, at a cost of \$5,428.33. The average salary paid to teachers was \$65.73 for males and \$46.48 for females. There were 108 teachers employed, 50 males and 58 females. There were 7,310 children of school age in the county—3,713 boys and 3,592 girls. In Davis County \$8,271.78 were apportioned among 2,748 children of school age. In Tooele County there were 12 school districts with 1,685 children and 30 teachers. In Ogden County there were 5,390 children of school age.

The Auditor's report for July showed receipts on hand, \$898.66; loan due Treasurer, \$940.07; total disbursements, \$3,778.63; warrants paid, \$3,778.63. The Davis County Public School Library Association has in active operation the first free circulating library system that has been tried in the State.

The United States Government has granted to the State a 60-acre tract within the Fort Douglas military reservation, on the bench east of and overlooking the city for a university site, conditioned that the institution shall establish itself there before 1904. Four buildings are to be constructed, known as the library, the normal, the museum, and the physical science buildings. The regents of the university asked for \$84,200 for the general maintenance of the university proper; for special purposes, \$7,150; for State normal school, special, \$3,700, kindergarten, \$4,600; for branch normal, \$15,000. The biennial report of the university showed an attendance during the last two years of 733 students—331 males and 402 females; total number of graduates, 107; normal graduates, 376; registration for 1899, 585

—250 males and 335 females in the university proper; in normal school, 332; kindergarten department, 9; in preparatory school, 114; summer school, 50; grand total, 666. For the maintenance of the Agricultural College for the next two years the sum of \$48,605 was asked. The value of the buildings and real estate was \$165,800; of the college equipment, \$30,222.56; of the experiment station equipment, \$7,281.90; of the live stock, \$3,091.50.

Mormon Affairs.—In the semiannual conference of the Mormon Church, held at the tabernacle on Oct. 10, the secretary reported the number of schools represented as 1,019; male officers and teachers, 7,524; female officers and teachers, 52,624; grand total for 1898, 116,703; total collections, \$17,264.33; balance on hand, \$3,986.21. Every one of the 40 stakes of Zion, reaching from Canada to Mexico, was represented in the gathering.

The revenue from church tithing for June, July, August, September, and six days in October was shown to have been \$164,900; for the year 1899, the tithings amounted to \$700,000 in cash and \$800,000 in produce.

Legislative Session.—The Legislature was in session from Jan. 10 to March 17, and consisted of 2 Republicans and 16 Democrats in the Senate, with 15 Republicans, 26 Democrats, and 4 Cannon fusionists in the House.

The bills passed and approved by the Governor included the following:

Permitting the use of testimony given by witnesses in criminal cases at subsequent trials when such witnesses are dead or beyond the jurisdiction of the court.

Making the theft of any range or domestic animal, regardless of their value, the crime of grand larceny.

Providing that only property taxpayers who are qualified electors shall be eligible to petition for or vote upon propositions for town incorporations.

Providing for the creation of a State institute of art.

Establishing a branch of the experiment station, under the direction of the State Board of Horticulture, in southern Utah.

Providing for the erection of a hospital for the Utah State School for the Deaf and Dumb at Ogden, and carrying an appropriation of \$3,500.

Giving the State Board of Pardons authority to parole prisoners and to reduce the sentences of convicts for good behavior.

Exempting all the wages of a married man for a period of sixty days after date of rendition of judgment.

Making the lien of a docketed judgment subsist for eight instead of five years.

Repealing section 1,499 of the Revised Statutes, which required the doing of \$50 worth of work on a mining claim within ninety days from date of posting notice of location.

Providing for the removal of the University of Utah to the site granted by Congress on the western edge of the Fort Douglas military reservation, and providing for the construction of buildings therefor and improvement of grounds at a cost of \$200,000.

Political.—For two years Utah will have but one representative in the Senate of the United States. The joint session of the Legislature adjourned *sine die* a few minutes after midnight, March 17, without having elected a Senator; 165 ballots for Senator had been taken without any one of the 8 candidates having received the 32 votes necessary for election.

V

VENEZUELA, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 27 members, 3 from each State, elected for four years, and a House of Representatives numbering 63 members, 1 to 35,000 inhabitants, who are elected for four years by the votes of all adult male citizens. The Congress elects for four years a Council of Government, and for the same term the President of the republic. Gen. Ignacio Andrade was elected President for the term beginning March 4, 1898. The Cabinet in the beginning of 1899 was composed as follows: Minister of the Interior, Gen. Zoilo Bello Rodriguez; Minister of Foreign Affairs, Gen. Juan Calcaño Mathieu; Minister of War and Marine, Gen. A. Fernandez; Minister of the Treasury, M. A. Matos; Minister of Public Credit, C. V. Echeverria; Minister of Education, Dr. B. Mosquera; Minister of Posts and Telegraphs, Dr. J. L. Arismendi; Minister of Agriculture, Industry, and Commerce, Gen. N. Rolande; Minister of Public Works, Dr. Alberto R. Smith.

Finances.—The budget for 1899 makes the total revenue 34,542,000 bolivars or francs, of which 25,000,000 bolivars come from customs, 5,292,000 bolivars from internal revenue duties, and 4,250,000 bolivars from State revenues. The total expenditures are made to balance the revenue. The amount of the national debt on June 30, 1898, was 201,419,202 bolivars, of which 66,614,550 bolivars represent the external 3-per-cent. debt, 63,439,430 bolivars the internal consolidated 6-per-cent. debt of 1896, 49,250,000 the 5-per-cent. Venezuelan loan of 1896, 10,565,199 bolivars the 5-per-cent. aqueduct bonds, 7,774,893 bolivars the 3-per-cent. Spanish, French, and German loan, 3,605,773 bolivars warrants repayable at the rate of 1 per cent. a month, and the remainder the debt resulting from the revolution and unpaid balances of older debts.

Forces.—The permanent army in 1898, its strength being fixed by the reorganization law of July 30, 1895, consisted of 10 battalions, each composed of 6 companies of 60 men. The fleet comprised 3 steamers.

Commerce and Production.—On the alluvial lands of the coast and the delta of the Orinoco sugar cane, coffee, cacao, grain, and other agricultural products are grown, about a fifth of the total population of the country being employed in their cultivation. On the grassy plains at a higher elevation stock raising is carried on. The herds of cattle are estimated to number 5,000,000 head. The forest regions furnish rubber, copaiba, tonga beans, vanilla, and other commercial products. Gold mining is carried on in the Yuruari territory, half of which is in dispute between Venezuela and Great Britain. In 1897 43,500 ounces were exported. Silver is mined in Bermudes, Lara, and Los Andes. Copper is mined also. Iron is found in abundance, and coal, sulphur, lead, asphaltum, kaolin, and tin could be mined. There are deposits of salt in various places, and these are worked for the Government, which obtained from them a revenue of 1,727,490 bolivars in 1894. The total value of the exports in 1896 was 111,455,143 bolivars. The chief article of export is coffee, the shipments of which in 1897 amounted to 44,667 tons. Of cacao 4,047 tons were exported. Of hides and skins there were exported 3,440,109. The export of rubber was 339

tons; of quina bark, 31,044 kilogrammes. Minor exports were copaiba, tonga beans, fustic, divi-divi, feathers, and fish sounds. The value of the coffee exported in 1896 was 85,786,000 bolivars; of cacao, 10,091,000 bolivars; of gold, 11,792,000 bolivars; of hides, 2,957,000 bolivars; of animals, 1,552,000 bolivars. The export of bar gold was 1,353 kilogrammes. The chief imports were provisions, piece goods, hardware, coal, kerosene, timber, and machinery.

Navigation.—The number of vessels entered and cleared at the port of La Guayra in 1897 was 312, of 676,500 tons; at Maracaibo, 285, of 78,620 tons; at Ciudad Bolivar, 133, of 58,367 tons. The merchant fleet in 1898 consisted of 11 steamers, of 2,185 tons, and 17 sailing vessels, of 2,760 tons. The merchant marine in 1898 consisted of 17 sailing vessels, of 2,760 tons, and 11 steamers, of 2,185 tons.

Railroads and Telegraphs.—The length of railroads in operation in 1898 was 530 miles, and 1,000 miles more were projected.

The telegraphs in 1898 had a total length of 3,882 miles.

Revolution.—A revolution against the administration of President Andrade was started in the province of Los Andes in June, 1899, and in the course of the next two months it spread through the country. Gen. Manuel Hernandez, who headed the first rising, was defeated. He was captured and put in prison in the capital, and his followers were dispersed. Gen. Cipriano, Governor of Los Andes, then assembled an insurrectionary force, and by rapid marches through the passes of the mountains arrived before Barquisimeto, where the scattered forces of Gen. Hernandez joined his army. In August many politicians were arrested. In a battle near Barquisimeto on Aug. 23 the revolutionary forces made prisoners of several battalions of Government troops and captured a large quantity of ammunition. When the President left Caracas to take command of the troops in the field, a new Cabinet was appointed, symptoms of vacillation and defection having been observed among the ministers, one of whom, Zoilo Rodriguez, of the Department of the Interior, was arrested on Sept. 6. Gen. Juan Pietry and Ramon Ayala, members of Congress, after making an energetic protest against the dictatorial acts of President Andrade, fled to Curaçoa to prepare a filibustering expedition in aid of Castro's rebellion. Gen. Rangel Garviras raised the revolutionary standard, invaded the state of Tachira, and captured Colon, San Cristobal, and other important places. Gen. Francesco, with another body of insurgents, operated around San Antonio. Gen. Gutierrez raised a force to attack Guirra.

Gen. Castro had 10,000 men under his immediate command. On Sept. 15 he captured Valencia after a severe engagement with the garrison, which was unable to hold out until Gen. Andrade arrived with re-enforcements. The Government troops were afterward surprised in the plains near Valencia and were put to rout with a loss of more than 1,000 killed or wounded. The revolutionists next occupied Puerto Cabello and Maracay, and advanced on Caracas. The American, British, and French ministers asked their governments to send men-of-war to protect the interests of their citizens. Gen. Andrade conce

trated his forces for the defense of the capital, which was practically besieged by the insurgents advancing from Valencia and Victoria, while another division moved on La Guayra for the purpose of preventing the President's escape. President Andrade sent an envoy to the revolutionary leader, offering to resign so as to allow the peaceful election of Gen. Castro, thus averting a military dictatorship. Negotiations were suspended, then resumed, and after two weeks of parleying, Gen. Castro sent an ultimatum, which was accepted. Gen. Andrade did not wait to transfer the executive authority to Gen. Castro, but fled to La Guayra before the entry of the latter into Caracas on Oct. 21. Several members of his Cabinet and others of his adherents preceded him in his flight. Before departing the President disbanded the Government troops, except a selected force which he took with him to La Guayra, and embarked on the Government gunboats and transport. Gen. Castro as acting President requested the foreign diplomatic representatives to take measures to prevent Gen. Andrade from leaving La Guayra with naval vessels and a large supply of ammunition. The United States minister, to whom as dean of the diplomatic corps the request was preferred, declined to interfere. The fleet sailed for Maracaibo on the same day that the revolutionists entered Caracas.

Gen. Castro was invested with power as provisional President by Congress, and on Oct. 23 appointed a Cabinet as follows: Minister of the Interior, Francisco Castillo; Minister of Foreign Affairs, Anduego Palacio; Minister of Finance, Tello Mendoza; Minister of War, Gen. Ignacio Pulido; Minister of Agriculture, Industry, and Commerce, Manuel Hernandez; Minister of Public Works, Victor Rodriguez; Minister of Public Instruction, Clemente Urbaneja. Gen. de Barri arrived in Maracaibo on Dec. 1 to establish the authority of the provisional Government. The naval vessels demanded his surrender from the American steamer on which he came, but the captain refused to give him up. The adherents of the new Government rose in arms as soon as Gen. de Barri gave the signal, and attacked the customhouse. The opposing troops, strengthened with the crews of the gunboats, resisted through the night and the next morning, but finally surrendered the customhouse and threw down their arms.

Anglo-Venezuelan Boundary Arbitration.

—The tribunal appointed, under the treaty signed at Washington on Feb. 2, 1897, to arbitrate in the matter of the disputed boundary between Venezuela and British Guiana met formally in Paris on Jan. 25, 1899, and then separated, to resume its sittings on June 15. The arbitrators named in the treaty were Chief-Justice Melville W. Fuller and Justice David Brewer of the United States Supreme Court, and Lord Herschell and Justice Sir Richard Henn Collins, British jurists. The president of the tribunal was to be selected by these arbitrators or, in case of disagreement, by the King of Sweden and Norway. The jurist selected by the arbitrators was Prof. Frederick Martens, of the Russian Ministry of Foreign Affairs. Lord Herschell having died, Lord Russell of Killowen, the Lord Chief Justice of England, was chosen to take his place as a British arbitrator. The Venezuelan and British cases, with supporting documents and the counter-cases and printed arguments on both sides, were laid before the tribunal, filling 23 volumes. The oral arguments were presented by ex-President Benjamin Harrison, assisted by Benjamin F. Tracy, Severo Mallet Provost, and James Russell Soley in behalf of

Venezuela, and by Sir Richard Webster, Attorney-General of England, assisted by Sir Robert Reid and G. R. Askwith, as junior counsel for Great Britain.

The Venezuelan Government contended that an original title to the whole of Guiana, the region bounded by the Orinoco, the Amazon, and the Atlantic Ocean and Caribbean Sea was established by Spain by virtue of discovery, exploration, formal proclamation of sovereignty, and occupation and by the recognition of the Spanish claim to the New World in the papal bull of 1493. Columbus sighted the coast of Guiana near the mouth of the Orinoco in 1498, and subsequent explorers ascended the Amazon and the Orinoco and passed from one to the other through the channel of the Cassiquari connecting their upper waters, thus circumnavigating the region that came to be known as the island of Guiana. Settlements that Spaniards attempted to establish on the coast were destroyed by the Caribs until Berrio, in 1592, in search of El Dorado, the gold field of the Incas that was believed to exist in Guiana, penetrated from Granada to the Orinoco and descended it to Trinidad. On this island a Spanish post was established, and on the Orinoco the town of Santo Thome. The Dutch, who revolted from Spain in 1581, visited the Guiana coast for trading and employed the Caribs to war upon the Spanish settlements. In 1626 the Dutch West India Company was chartered, and it established a trading post at Kijkoveral, an island in the Essequibo river. In 1648 the treaty of Münster recognized the right of the Dutch to trade and to possess the places they then held in Guiana, which was only the station of Kijkoveral and nothing in the country to the west of the Essequibo, which was recognized as Spanish territory according to the Venezuelan version of the treaty.

The British view rejected this interpretation as well as the Spanish prior title founded on discovery, and claimed that the Dutch had the same right to extend from Kijkoveral that the Spaniards had to extend from Santo Thome. The Dutch did extend their occupation up the delta of the Essequibo as far as the falls of the Massaroony and the Cuyuni and westward along the coast to the Pomeroon and Maruka rivers. The Spanish Capuchin friars established missions south of the Orinoco, which were gradually extended until they approached the Cuyuni, on the bank of which the authorities of Santo Thome built a fort to protect these missions from the Caribs. Dutch traders penetrated the upper valley of the Cuyuni to buy horses from the mission Indians. They also made their way along an inland water way connecting the Essequibo with the rivers flowing into the estuary of the Orinoco. The Caribs were aided by the Dutch in their wars against the Spanish, and received subsidies for catching and returning runaway negro slaves from the Dutch plantations. Dutch slave raiders traversed the wild regions of the interior, and Dutch outlaws settled in the Barima district, which acquired importance in the Venezuelan controversy from the fact that it dominates the principal mouth of the Orinoco. The Spaniards sent expeditions to break up Dutch settlements on the Cuyuni and along the coast from Barima as far eastward as the mouth of the Maruka; otherwise, they exercised no authority nor did they make settlements in the country south of the Orinoco except in the open savanna, where the mission stations were. The Dutch authorities disclaimed jurisdiction beyond the Maruka. The Spanish authorities disavowed

likewise all responsibility for the Barima district, which became the Alsatia of Spanish and Dutch outlaws and runaway slaves, and the base of operations for French buccaners and Dutch expeditions designed to wrest from the Spaniards the gateway to El Dorado.

In 1810 the republic of Venezuela gained its independence and succeeded to the rights of Spain in Guiana, and in 1814 the Dutch colony of Essequibo, with Demerara and Berbice, was ceded to Great Britain. In 1841 Robert Schomburgk was employed by the British Government to survey the boundary. He drew a line based partly on certain old maps and certain ruins and other evidences of former white occupation which he assumed to have been Dutch, though the ruins at Point Barima were probably those of a French fort, partly on the geographical configuration of the country (see map in *Annual Cyclopædia* for 1895, page 740). In his report he extolled the value to Great Britain of Point Barima as controlling the only entrance to the Orinoco that was navigable by large vessels. He erected boundary marks at the mouths of the Barima and Amacura rivers, and British officials appeared at Point Barima, creating intense excitement in Venezuela, and drawing from the Venezuelan Government a remonstrance, in consequence of which the British Government caused the boundary posts to be removed, explaining that they were not intended to indicate possession. Schomburgk's revised map, completed after the survey, made the proposed boundary run along the crest of the Imataca mountains, giving to Great Britain the whole of the Cuyuni river and its tributaries, whereas his first line, the one that was communicated to the Venezuelan Government and made public, crossed the Barima, the Barama, the Cuyuni, and the Massaroony midway in their course.

The Venezuelan claim embraced all territory west of Essequibo river except the coast district from the Maruka to the Essequibo and the lands along the left bank of the Essequibo and on the lower course of the Cuyuni and the Massaroony which could be claimed by England by prescriptive right derived from Dutch settlement in the last century. The British extreme claim embraced the whole basin of the Essequibo and Cuyuni, reaching almost to the Orinoco and the Caroni, and the whole seacoast up to and including Point Barima, with the drainage basins of the Barima and Waini. This was the claim made by Lord Salisbury that led to the rupture of diplomatic relations by Venezuela when preparations were made to take possession of Barima in 1880. The British Government adhered to Schomburgk's capricious line, as the Venezuelans described it, the one published in 1841, except when Lord Aberdeen in 1844 and Lord Granville in 1881 offered slight concessions to Venezuela to end the dispute. In 1850 the two governments agreed mutually, in an interchange of notes, that they would not encroach on the disputed territory until the boundary should be settled. When the Venezuelan Government granted some forest lands to an American company, part of which Great Britain asserted lay within the disputed territory, the latter asserted that this was a breach of the agreement.

On the discovery of gold in the Yuruari and Yuruan districts of the upper Cuyuni valley, miners from British Guiana flocked into the country, and the British Government announced the intention of exercising jurisdiction up to the Imataca mountains and the Amacura river. Lord Salisbury brought forth a later boundary drawn by Schomburgk as the final result of his sur-

vey, which made the whole basin of the Cuyuni British territory. When informal negotiations were opened in 1876 Venezuela agreed to accept the line of the Maruka river and the upper Cuyuni proposed by Lord Aberdeen in 1844. Lord Granville claimed a large extent of territory to the north of it on the coast, and in 1881 offered a line starting not far from the mouth of the Waini. When Venezuela reopened the question of arbitration in 1887, after the discoveries of gold, Lord Salisbury refused to arbitrate anything east of the Schomburgk line. The second Schomburgk line, before that kept secret, was then communicated to the Venezuelan Government, and in 1889 the Barima was declared British territory, and British posts were established in the Yuruan and Yuruari gold fields. In 1895 President Cleveland announced that the traditional and established policy of the United States Government was opposed to extension of the possessions of any European power on the American continent. When the British Government, in reply, declined to accept the Monroe doctrine, he proposed to Congress in a message, and Congress agreed on Jan. 2, 1896, to appoint a commission to determine what the true boundary is between Venezuela and British Guiana. He declared in his message that it would be the duty of the United States to resist the appropriation by Great Britain of lands or the exercise of jurisdiction over territory which of right belongs to Venezuela, as a willful aggression upon its own rights. The American commission, consisting of Justice David J. Brewer, Richard H. Alvey, Andrew D. White, Frederic R. Coudert, and Daniel C. Gilman, took much testimony, but made no report, because the British Government in the meantime reconsidered its position and agreed to arbitrate.

The British claim presented to the tribunal did not include the whole region in the interior to which Lord Salisbury had laid claim, but was nearly the same as the one that Lord Palmerston advanced in 1850, following the earlier Schomburgk line. The Venezuelan Government adhered to its position that the Essequibo was the political boundary indicated in the treaty of Münster and never altered by any legal act. The territory in dispute had an extent of nearly 60,000 square miles.

The counsel for Venezuela were not prepared to prove any acts of sovereignty or evidence of occupation on the part of Venezuela within the disputed territory, because they understood that the fifty-year prescription reserved by Great Britain in the treaty of arbitration applied to the period antedating the cession of British Guiana to Great Britain, and that nothing that occurred subsequent to 1814 could be taken into account. The British counsel made it clear that the fifty years of continuous possession insisted upon in the correspondence and stipulated in the treaty were those running back from 1897, the date of the treaty. The American counsel being convinced of this, did not urge the point.

The unanimous award of the arbitrators was delivered on Oct. 3. The boundary line between the colony of British Guiana and the United States of Venezuela was determined as follows:

Starting from the coast at Point Playa, the line of boundary shall run in a straight line to the river Barima at its junction with the river Muruma, and thence along the midstream of the latter river to its source, and from that point to the junction of the river Haiowa with the Amacura, and thence along the midstream of the Amacura to its source in the Imataca ridge, and thence in a southwesterly direction along the

highest ridge of the spur of the Imataca mountains opposite to the source of the Barima, and thence along the summit of the main ridge of the Imataca mountains in a southeasterly direction to the source of the Acarabasi, and thence along the midstream of the Acarabasi to the Cuyuni, and thence along the northern bank of the river Cuyuni westward to its junction with the Wenamu, and thence following the midstream of the Wenamu to its westernmost source, and thence in a direct line to the summit of Mount Roraima, and from Mount Roraima to the source of the Cotinga and along the midstream of that river to its junction with the Takutu, and thence along the mid stream of the Takutu to its source, thence in a straight line to the westernmost point of the Akarai mountains, and thence along the ridge of the Akarai mountains to the source of the Corentin, called the Cutari river.

The provision was inserted in the award that the line of delimitation fixed by the arbitrators shall be subject and without prejudice to any questions now existing or which may arise to be determined between the Government of her Britannic Majesty and the republic of Brazil, or between the latter republic and the United States of Venezuela.

In fixing the above delimitation the arbitrators considered and decided that in times of peace the rivers Amacura and Barima shall be open to navigation by the merchant ships of all nations, subject to all just regulations and to the payment of light or other like dues; provided that the dues charged by the republic of Venezuela and the government of the colony of British Guiana in respect of the passage of vessels along the portions of such rivers respectively owned by them shall be charged at the same rates upon the vessels of Venezuela and Great Britain, such rates being no higher than those charged to any other nation, provided also that no customs duties shall be chargeable either by the republic of Venezuela or by the colony of British Guiana in respect of goods carried on board ships, vessels, or boats passing along the said rivers, but customs duties shall only be chargeable in respect of goods landed in the territory of Venezuela or Great Britain respectively.

VERMONT, a New England State, admitted to the Union March 4, 1791; area, 9,565 square miles. The population, according to each decennial census, was 154,465 in 1800; 217,895 in 1810; 235,966 in 1820; 280,652 in 1830; 281,948 in 1840; 314,120 in 1850; 315,098 in 1860; 350,551 in 1870; 332,286 in 1880; and 332,422 in 1890. Capital, Montpelier.

Government.—The State officers in 1899 were: Governor, Edward C. Smith; Lieutenant Governor, Henry C. Bates; Secretary of State, Frederick A. Howland; Treasurer, John L. Bacon; Auditor, Orion M. Barber; Adjutant General, T. S. Peck; Superintendent of Education, Mason S. Stone; Chief Justice of the Supreme Court, Jonathan Ross; Associate Justices, Loveland Munson, John W. Rowell, R. S. Taft, H. R. Start, L. H. Thompson, James M. Tyler; Clerk, M. E. Smilie. All the State officers are Republicans.

The State Senate, which has 30 members, is unanimously Republican. In the House there are 201 Republicans, 42 Democrats, 1 Prohibitionist, and 1 Independent.

Finances.—The State Treasurer's report for the fiscal year ended June 30, 1899, shows gross receipts, \$1,413,221.55; disbursements, \$1,280,288.04; leaving cash in treasury, \$133,632.91. Among the receipts is \$1,581.27 from 28 towns,

for excess of profit on liquor agency sales. Ludlow reports the largest sum, \$173.14; Highgate the smallest, 98 cents. The corporations paid \$403,535.99; the collateral inheritance tax, \$13,661.36.

The Auditor's orders paid amounted to \$635,994.59; debentures of the General Assembly, \$57,844.20; extra State pay, Spanish war, \$31,958.18; interest, \$31,034.36. The remaining items of expenditure were mostly for repayment of borrowed money and distribution of State, road, and school taxes.

The Treasurer estimated the revenues of the State, including cash on hand, at \$879,248.33; liabilities, \$530,737.47; balance available for the current fiscal year, \$348,510.86.

Railroads.—Under the charter granted by the Legislature of 1898 the Central Vermont Railway Company was reorganized at St. Albans in April. This reorganization was effected to carry out the agreement of the bondholders with the Grand Trunk Railway, and for the purpose of consolidating the various properties included in the recent sale of the road. The general manager of the Grand Trunk Railway said of it: "The organization of the Central Vermont property has been unique in that the relations between all interests have been adjusted satisfactorily and the property has been put on a sound financial basis without an assessment made on any class of security holders—the only instance of the kind known in modern railroad organizations."

In October a new arrangement was made with the conductors and brakemen, by which they are to receive pay according to the number of miles they run instead of by the month. It was said that this would increase their income.

Highways.—In May a meeting of road commissioners of Washington County was held in Montpelier to discuss the problem of permanent road building. The State Highway Commissioner, W. B. Viall, addressing the meeting, said that in five counties in which he had already held such meetings he had found only one man who had expanded the 5-per-cent. State tax according to law. Mr. Viall said he considered the macadamized road the best, and the so-called stone road next best. The State has insisted since the law was passed in 1894 that this 5-per-cent. tax shall be laid out for permanent roads, but this has not been done. J. P. Rice, of Northfield, explained his method of building permanent stone roads. Good drainage helps good roads. Slate gravel has been used by him with much success. The State money has been expended for gravel, and a separate account has been kept of it. Joseph Bartlett, of Plainfield, believed in the use of tile, and that it should be put in deep. Others gave the results of their experiments, and the subject was discussed thoroughly.

Forests.—A writer in the New England Homestead says: "One can but note with apprehension the gradual depletion of our Vermont forests, with no effort made to replace the annual output with young growth of the varieties most in demand, such as spruce and pine. The vast inroads made upon our young spruce and pine forests at the Christmas holidays' approach is especially destructive. Thousands upon thousands of young spruce trees from three to ten feet in height are annually shipped to the larger cities. The small pittance the farmer receives for them becomes a source of wonderment to those who have the preservation of our forests at heart. There are many acres in Vermont that could be set out to spruce and pine that would prove not

only a source of beauty but of added profit to the farmer."

Holidays.—The first Monday in September, known as Labor Day, became a legal holiday this year by legislative enactment. The weather was good, and celebration was general throughout the State.

Oct. 12 was observed as Dewey Day. Public-spirited citizens guaranteed the necessary funds for the arrangements, and special trains were run on all the railroads. It was estimated that 40,000 strangers were in Montpelier that day. At the reviewing stand the Governor presented the admiral with a gold medal. At Northfield, where Dewey received his early education, he laid the corner stone of a new building for the university which is to bear his name. Natives of Vermont no longer resident in the State have subscribed funds for a statue of the admiral, to be placed in the portico of the Capitol, at Montpelier.

Souvenir Guns.—The ordnance department of the United States navy has given to Montpelier two guns taken from the Spanish cruiser Castilla, which was sunk in Manila Bay by Admiral Dewey's fleet. The guns are 24 feet long and of 6½-inch caliber.

National Guard.—The Supreme Court of the State delivered in July an opinion concerning the status of the National Guard. The opinion holds that the First Regiment practically went into the United States army on leave of absence and, upon its return, resumed its old status; that all former members of the National Guard who went to the war are still members of the National Guard; that all former guardsmen who did not go are honorably discharged from service; and that citizen volunteers who enlisted to bring the companies up to a war strength upon their muster out returned to civil life and are not members of the National Guard.

VIRGINIA, a Southern State, one of the original thirteen, ratified the Constitution June 25, 1788; area, 42,450 square miles. The population, according to each decennial census, was 747,610 in 1790; 880,200 in 1800; 974,600 in 1810; 1,065,116 in 1820; 1,211,405 in 1830; 1,239,797 in 1840; 1,421,661 in 1850; 1,596,318 in 1860; 1,225,163 in 1870; 1,512,565 in 1880; and 1,655,980 in 1890. Capital, Richmond.

Government.—The following were the State officers in 1898: Governor, J. Hoge Tyler; Lieutenant Governor, Edward Echols; Secretary of State, Joseph T. Lawless; Attorney-General, A. J. Montague; First Auditor, Morton Marye; Second Auditor, Josiah Ryland, Jr.; Treasurer, A. W. Harman, Jr.; Adjutant General, W. Nalle; Superintendent of Public Instruction, Joseph W. Southall; Commissioner of Agriculture, George W. Koiner; Register of the Land Office, J. W. Richardson; President of the Supreme Court of Appeals, James Keith; Justices, John W. Riely, John A. Buchanan, George M. Harrison, and Richard H. Cardwell; Clerk, G. K. Taylor. All are Democrats.

Finances.—The Treasurer's report of the operations of the treasury for the fiscal year ending Sept. 30, 1899, has this synopsis:

On account of the Commonwealth: Balance on hand Oct. 1, 1898, \$236,881.73; received in the fiscal year 1898-'99, \$3,475,404.37; total, \$3,712,286.10. Disbursed in the fiscal year 1898-'99, \$3,106,343.65. Balance on hand Oct. 1, 1899, \$605,942.45.

On account of the literary fund: Balance on hand Oct. 1, 1898, \$205,626.55; received in the fiscal year 1898-'99, \$273,238.61; total, \$478,865.16. Disbursed in the fiscal year 1898-'99, \$274,584.62. Balance on hand Oct. 1, 1899, \$204,280.54.

On account of interest on the public debt: Balance on hand Oct. 1, 1898, \$5,177.07; received in the fiscal year 1898-'99, \$706,396.35; total, \$711,573.42. Disbursed in the fiscal year 1898-'99, \$707,568.03. Balance on hand Oct. 1, 1899, \$4,005.39.

On account of the sinking fund: Balance on hand Oct. 1, 1898, \$405,001.18; received in the fiscal year 1898-'99, \$133,904.63; total, \$538,905.81. Disbursed in the fiscal year 1898-'99, \$101,045.18. Balance on hand Oct. 1, 1899, \$437,860.63.

On account of the Miller fund: Balance on hand Oct. 1, 1898, \$5,398.18; received in the fiscal year 1898-'99, \$71,884.17; total, \$77,282.35. Disbursed in the fiscal year 1898-'99, \$67,011.35. Balance on hand Oct. 1, 1899, \$10,271.

The total balance in the treasury to the credit of the several funds Oct. 1, 1899, was \$1,262,360.01. In addition to this the United States direct tax fund had to its credit \$1,162.74.

The amount paid for pensions was \$106,235.

Education.—In the year ending July 31, 1899, the total population of school age was 665,865, of whom 397,162 were white and 268,703 colored. The number of schools was 8,806, of which 6,492 were for white pupils and 2,314 for colored. The number of pupils enrolled was 358,825, of whom 241,696 were white and 117,129 colored. The total average attendance was 203,136. The number of teachers was 8,836, of whom 6,671 were white and 2,165 colored. The average monthly salary was \$32.09 for men and \$26.39 for women. The cost per month for each pupil enrolled was 80 cents; for each pupil in attendance, \$1.41. The number of schoolhouses was 7,218; the total number of volumes in the school libraries, 17,660. The superintendent says in his report: "Among the encouraging indications of the growing influence of public education in Virginia is the increasing tendency to establish school libraries in the rural districts as well as in the towns and cities. During the last school year more books were purchased for this purpose than in any similar period of our history. In Roanoke County the school trustees have set aside a certain amount of their local tax fund to be spent for such books as they, in conjunction with the county superintendent, may select for the various schools. Other counties have similar provisions."

Penitentiary.—The superintendent of the Penitentiary says in his report: "For the first time in some years our report shows much decrease in our number from the year before. This is accounted for largely by the conditional pardon law. This law has worked well, but I renew the recommendations made in my last report as to amending the law in two particulars: First, that the law should not apply to those with sentences of less than two years; and, second, that those who have kept the prison rules two years continuously just prior to their time of application should be allowed the privileges of the law."

The average number of convicts in the Penitentiary in the year was 1,262, and the expense of keeping them was \$71,863.99. The per capita daily expense was 15 cents and 6 mills. Besides these, 281 were employed outside. The products of the State farm were valued at \$9,029.92.

State Hospitals.—In the Western State Hospital the number of patients cared for and treated during the year was 1,115, the largest in the history of the hospital, and there was a large increase in the number of applications for admission. It reached 286, of which 214 were approved and the applicants admitted. All the wards were occupied to their full capacity, and new patients were received by granting furloughs

to such patients as could be safely allowed to return home. The average per capita cost of maintenance was \$108.38, which is increased to \$112.36, if the cost of insuring the buildings and of the transportation of patients be included. Never in the history of the hospital has the cost been so small.

In the Eastern State Hospital the number treated was 659, the largest number in any year since it was established. On Sept. 30 the number was 564. The superintendent says in his report: "I have on file 18 applications for admission, with no hope of providing for their reception in the near future, except in the ordinary course of removal by death or discharge. It has been my purpose, since assuming charge of this hospital in February last, to give relief to as many of this unfortunate class as it was possible to do, by receiving all who applied, until the capacity of the institution is taxed to its highest degree." The per capita cost for the year was \$128.25.

In the Central State Hospital the number treated was 1,015, and the daily average was 860, the largest since it was established. At the close of the year the number of patients was 852. The per capita cost for the year was \$88.87.

In the Southwestern State Hospital the number of patients during the year was 489. The largest number at any one time was 410. The per capita cost for the year was \$129.62. The superintendent in his report says: "The most important need here is the early completion of the new building"; and again: "Of applicants, 122 have been admitted; some have gone to other hospitals, some have died in the jails or at their homes, and some are still waiting for want of room. Strenuous efforts have been made on the part of this hospital, and on the part of the other State hospitals also, to admit as many as possible, and especially to keep the county jails free from insane, as near as we could; but this has been impossible. Some remain in jail at this time. As said before, the number in jail varies often each day, as the friends often, when no room can be had at the State hospitals, come at once and take them out of jail on bond."

Agriculture.—The Commissioner of Agriculture says in his report: "This department is now chiefly a fertilizer bureau, and is giving to the farmers of the State valuable protection, in securing for them fertilizers up to their guarantee. Our farmers spend annually over \$4,000,000 for fertilizers. This is a large expenditure of money, and without careful protection they could be easily defrauded out of large sums. The commissioner in a neighboring State reports that the farmers in his State lost annually at least 25 per cent. in value in the fertilizers they bought, before the State required the fertilizers sold therein to be inspected by law. If such were true in this State, this department is saving our farmers over \$1,000,000 annually.

"Owing to the stringent pure-food laws which have been passed by other States, except Virginia, this State has become the dumping ground for much adulterated food and feeds. The extensive and increasing sale of oleomargarine and butter adulterations in this State, which is advertised

and sold here as Virginia butter, has ruined our home-made butter market. Jellies, preserves, molasses, canned goods, and other country-made articles of diet, also food made from cereals and flour, are so much adulterated that the health of many people is no doubt seriously impaired, while the market price for the pure articles is reduced below the cost of production by our farmers."

The commissioner says the State contains 15,000,000 acres of uncultivated arable land.

Military.—The Adjutant General says in his report for the two years 1898-'99: "The Virginia regiments went into the volunteer army of the United States with the desire and the expectation of seeing very much more active service than fell to their lot, and the fact that the names of no battles are inscribed upon their flags is no fault of theirs. They performed well the duties which were assigned to them, and endured as Virginia soldiers should the many privations and hardships incident to army life in the field in time of war. The total number of officers and enlisted men who served in the four Virginia regiments during all or a portion of the time those regiments were in the United States service is 198 officers and 5,128 enlisted men. The losses by death were 2 officers and 68 enlisted men."

Oysters.—The report of the State Board of Fisheries shows that \$54,320.69 was collected from the State oyster beds and fishing grounds, and paid into the State treasury in the year ending March 31, 1899. The net amount of revenue derived from the fish and oyster industries in that time was \$34,247.96. The State's revenue from fish and oysters for the fiscal year ending Sept. 30, 1898, was \$30,000, and the expense of enforcing the law that year was \$2,000 in excess of the total amount of the revenue from the industry.

Confederate Monument.—On June 6 a monument was unveiled in Stonewall cemetery, Winchester, in commemoration of 149 Confederate soldiers of South Carolina who are buried there. The shaft is of Italian marble, 18 feet high, shaped in imitation of Cleopatra's Needle.

Dismal Swamp Canal.—The Dismal Swamp Canal was formally opened on Oct. 14. The Talbot was the first war ship to pass through it.

Legislative Session.—At the session of the Legislature in January among the bills passed were these:

To incorporate the Big Sandy and Cumberland Railroad Company.

For the creation of the Norfolk, Portsmouth and Newport News Railway Company.

To incorporate the Independent Order of Galilean Fishermen.

Authorizing the Jefferson Davis Monument Association to transfer all its funds and property to the United Daughters of the Confederacy.

Requiring the teaching in the public schools of the effect of alcohol on the human system.

Several amendments to the game laws.

A bill to punish wife beaters caused a lively debate. It provided that the offender should be beaten with stripes.

Numerous bills of local interest and importance were passed.

W

WASHINGTON, a Pacific coast State, admitted to the Union Nov. 11, 1889; area, 69,180 square miles. Population, according to the census of 1890, 349,390. Capital, Olympia.

Government.—The State officers for the year were: Governor, John R. Rogers; Lieutenant Governor, Thurston Daniels; Secretary of State, Will D. Jenkins; Treasurer, C. W. Young; Auditor, Neal Cheatham; Commissioner of Public Lands, Robert Bridges; Superintendent of Public Instruction, Frank J. Browne; Attorney-General, Patrick H. Winston—all Populists except Winston, who is a Silver Republican. Chief Justice of the Supreme Court, Elmon Scott; Associate Justices, T. J. Anders, M. J. Gordon, R. O. Dunbar, James B. Reavis, and Mark A. Fullerton.

Finances.—The last report of the Treasurer was that which covers the period from Nov. 1, 1896, to Oct. 31, 1898. A summary of this, including all the important items, was published in the Annual Cyclopædia for 1898, page 825. The total receipts for the two years were \$3,984,049.30; the total disbursements, \$3,443,424.31.

The bonded indebtedness of the State, Nov. 1, 1896, was \$300,000; in each of the ensuing two years bonds to the amount of \$25,000 were redeemed, leaving the bonded indebtedness, Oct. 31, 1898, \$250,000. Besides this, there were warrants outstanding to the amount of \$1,455,969.25, making the total indebtedness of the State, Oct. 31, 1898, \$1,705,969.25. The estimate of receipts for the biennial term ending March 31, 1901, is \$1,663,000; and of expenditures, \$1,035,400.

Banks.—Thirty-two State banks reported to the Auditor in 1898. Their resources on May 31 of that year were as follow: Loans on real estate, \$316,015.35; loans on personal property, \$501,834.21; other loans and discounts, \$1,851,258.47; stocks and bonds, \$203,280.55; State, county, and city warrants, \$307,848.42; real estate, \$1,218,151.31; due from banks and bankers, \$1,235,137.50; furniture and fixtures, \$64,223.60; expenses, etc., \$101,360.05; overdrafts, \$92,297.97; other resources, \$348,293.30; cash on hand, \$924,634.37; total, \$7,164,335.16. Their liabilities were thus summarized: Capital stock paid in, \$1,836,390; surplus fund, \$149,652.69; undivided profits, \$233,308.77; certificate of deposit, \$1,015,824.70; individual deposits subject to check, \$3,047,245.05; due to banks and bankers, \$241,541.80; certified checks, \$9,808.54; savings and trust deposits, \$598,003.49; bills payable and debenture bonds, \$20,250; dividends unpaid, \$990; discounts, \$11,320.12; total, \$7,164,335.16.

Education.—The State Superintendent says in his report: "The last Legislature enacted a code for the government of the public schools, the provisions of which have brought the common schools and the several educational institutions in closest sympathy. One chapter has special reference to the better organization of the schools into a unified system. Under this provision, the normal schools receive the graduates from the eighth grade of the common school; the University and Agricultural College receive students with full credit for work done at the normal schools; the State board are brought in touch with the able leaders of State institutions, and are enabled to adopt such a policy as will lead through the common school course up through the higher institutions of learning. The members

of the faculties of these higher institutions are coming into closer touch with the common schools, and are making themselves felt by work done in county institutes and teachers' associations, and the teaching force of the State is looking to the institutions for inspiration and leadership. The masses of the public seem to be more sensitive to the efforts put forth by the State institutions, and a restored confidence has brought prosperity to such an extent that the haste to get out of the State for a higher education has ceased to manifest itself, and from present indications never will again do so."

No later school statistics are published than those given in the Annual Cyclopædia for 1898.

The experiment of school savings banks was instituted in the spring of 1898. The teacher receives money from the pupils in any sum, even as small as one cent, and gives him a card on which the account is kept. When a pupil's deposits amount to \$3 he receives a bank book, and the money then bears interest at 5 per cent. Money can be withdrawn only with the consent of the parent. In the first three months the number of depositors in the State was 2,039, and the amount deposited was \$2,940.07. This experiment has been tried in other States, and it is said that the school children have thus deposited about \$200,000.

Forestry.—Forestry is taught in some of the educational institutions of the State. In January, 1897, a Forestry Association was organized. Edmond S. Meany, president of the association, said in his address: "The State of Washington presents all the numerous and varied problems that challenge the attention and the interests of the scientific forester the world over. We have in western Washington vast forests to protect; in eastern Washington great treeless areas to be planted; and between these two natural divisions we have the sources of many rivers which the health and prosperity of the people demand to be protected by a generous cover of forest growth. Out of these three classes of general forestry problems will spring all the diversified problems that deserve your attention now, and if neglected will some day compel your attention in ways not pleasant to contemplate. . . . The protection of the western Washington forests from fire is the most pressing problem at this moment, as any one can testify who has lived here during any summer season. The clouds of smoke that dim your eyes, shut out the sun, and choke you with biting fumes speak a most forceful language of acres and acres of the finest timber on earth being wasted and destroyed by needless fires. You all know that if this is to go on long enough all our forests will be destroyed. My observation has suggested two remedies that would help to allay this evil in some degree. One is to enact a law forbidding settlers and farmers from setting fire to slashings in timbered districts, except between Nov. 1 and May 1. This would eliminate one source of these fires. The other is to enact a law requiring railroad companies to do one of two things—clear their rights of way of all inflammable rubbish for 50 feet or more on each side of the track or to provide a perfect spark arrester for each locomotive."

Insurance.—The latest published statistics of insurance in this State are those for 1897. In that

year 11 accident companies received premiums to the amount of \$53,183.48, paid losses to the amount of \$40,290.72, and were taxed \$641.44.

Five marine companies received premiums to the amount of \$42,208.79, paid losses to the amount of \$3,960.34, and were taxed \$105.17.

Six plate-glass companies received in premiums \$6,239.81, paid losses to the amount of \$1,585.99, and were taxed \$41.98.

Nine fidelity and casualty companies received \$30,687.33 in premiums, paid losses to the amount of \$9,358.96, and were taxed \$164.81.

Three steam boiler companies received \$3,300.50 in premiums, had no losses, and paid \$52 in taxes.

One sick benefit company received \$533.87 in premiums, paid losses to the amount of \$464.31, and was taxed \$1.38.

Sixty-four fire insurance companies received premiums to the amount of \$1,204,035.86, paid losses aggregating \$422,165.43, and were taxed \$16,665.53.

Nineteen legal-reserve life companies received \$508,578.54 in premiums, paid losses to the amount of \$176,054.56, and were taxed \$7,167.83.

Eleven assessment life companies received \$51,706.94 in premiums, paid losses to the amount of \$33,416, and were taxed \$412.35.

The fees and taxes collected by the Insurance Department in the two years 1897-'98 amounted to \$52,419.37, while its expenses were \$2,800.

Decisions.—A decision was rendered by the Supreme Court, in May, on the question whether, in an action to recover for bodily injuries, a court has power to compel the plaintiff to undergo an examination by medical experts appointed by the court for the purpose of ascertaining the character and extent of the alleged injuries. It was a case in which a woman sued a railroad company to recover damages for injuries she had received while a passenger on its road. The lower court held that it had no power to order such examination, but the Supreme Court decided that it had. The decision was written by Chief-Justice Gordon and was concurred in by Justices Dunbar and Anders. Justices Reavis and Fullerton dissented.

In June the Supreme Court made several decisions in habeas corpus cases, ruling that when such cases are pending bail is not admissible.

Coal.—In the spring coal was discovered at Bucoda, in Thurston County. It is said to be the finest bituminous coal that has been found in the Northwest, and that the quantity is abundant.

Fish.—The Legislature made liberal appropriations for the department of fisheries, and in April the commissioner began putting the money to the purpose for which it was intended. He began the erection of a new hatchery on Nooksack river, for which \$5,000 was appropriated. The Olympian said in March: "Hatcheries will also be built near Wenatchee, on the Columbia river, and on the Skokomish river and at Willapa harbor. For the Wenatchee hatchery \$5,000 was appropriated, for the Skokomish \$5,000, and for Willapa harbor \$4,000. The Samish hatchery has been bought for the State. A hatchery to cost \$2,000 will be built on Little Spokane river. Later in the season one will be built on the Snohomish, for which \$3,000 is appropriated—\$2,000 this year and \$1,000 next. In 1907 hatcheries will be built."

Legislative Session.—The Legislature met Jan. 9, and sat till March 15. Lieut.-Gov. Thurston Daniels presided over the Senate, and E. H. Guie was elected Speaker of the House.

The Governor, in his message, set forth the ne-

cessity of raising the standard of common-school education, and suggested increased taxation for the school fund; he opposed the maintenance of more than one normal school, and afterward vetoed the appropriations for all but one; he advocated increased taxation of corporations and incomes, and reduction of interest on State warrants; he asked for the establishment of a railway commission, and the creation of the office of bank examiner; he opposed the appropriation of money to complete the State Capitol, and suggested the purchase of Thurston County courthouse instead; he emphasized the desirability of concurrent legislation with Oregon for the government of Columbia river fisheries; he advocated a suitable appropriation for a State exhibit in Paris, also urged an appropriation for a permanent exhibit of the State's resources at Omaha; he recommended the repeal of the law permitting suit to be brought against the State in the court of Thurston County, and declared that the log-scaling law should be either amended to effectiveness in protecting the interests of loggers or repealed.

On the first day of the session the House passed unanimously this resolution:

"Be it resolved by the House of Representatives of the Legislature of the State of Washington, now in session, that greetings be sent to President William McKinley, notifying him that the people of the State of Washington, through their legislative session assembled at the State capital, appreciate and indorse his wise, patriotic, and statesmanlike policy, by which the war against Spain for humanity's sake was commenced, successfully prosecuted, and speedily terminated under the direction of the President of the United States as the commander in chief of the army and navy of the Union; and that we earnestly hope and sincerely trust that the treaty of peace recently agreed to in Paris and signed by the commissioners of the United States and Spain will be speedily ratified by the Senate of the United States. And we further express to the President our confidence in him, and our admiration for the dignified foreign policy which has been inaugurated, with respect to the conquered territory coming into possession of the United States through the gallant and efficient efforts of our military and naval forces, as a conquest of war, and we believe that it should be the policy of this Government to maintain the Stars and Stripes over all territory where they may have been raised."

The most important bill presented at the session was one appropriating \$600,000 to complete the State Capitol. This passed both houses, but was vetoed by the Governor, and it failed to pass over the veto. Other important bills were for constructing or improving State roads. Another was to establish an industrial home for the adult blind at Lake Samamish, in King County, appropriating \$14,000. There are 111 blind adults in the State. Among the other bills passed were these:

Authorizing cities of the first, second, and third classes to maintain bicycle paths.

Relating to maintenance of ferries by cities and counties.

To provide for a museum at the university.

To provide for the maintenance of cemetery associations.

To provide against injury to the public lands.

To require railroads to protect frogs, switches, and guard rails.

To remit delinquent taxes, penalty and interest.

Creating the office of State fruit inspector.

For promotion of fruit growing and horticultural interests of the State.

Relating to manufacture and sale of dairy products.

Requiring horseshoers to pass an examination.

Appropriating \$5,000 for the destruction of Canada and Russian thistles.

Creating the county of Wenatchee.

Reducing the interest on State warrants to 6 per cent.

A resolution to submit to the people a constitutional amendment empowering the Legislature to exempt \$300 in personal property from taxation.

Addison G. Foster, Republican, was elected United States Senator.

WEST AFRICA. European possessions on the western coast of Africa, north of the Congo, previous to the assumption by Germany in 1884 of a protectorate over Togoland and the Cameroons, consisted merely of the English trading posts at Bathurst, Lagos, and on the Gold Coast, the English colony of Sierra Leone, originally peopled by liberated slaves from the West Indies, and the French colony of Senegal. In this last alone was any activity or desire of expansion exhibited. The Spaniards in the Bight of Biafra and the Portuguese at Cape Verde had practically abandoned their settlements on the mainland, retaining only the islands. The English were inclined to contract their boundaries. Since the extinction of the slave trade commerce had steadily declined. Spirits were the chief article of import, and German potato spirits had supplanted the rum formerly supplied by New England and the West Indies. The new colonial projects of Germany reawakened the spirit of colonial enterprise in other nations and gave rise to a sharp rivalry, which was particularly intense in West Africa, the whole of which is now partitioned between France, Great Britain, and Germany, save territories left to the independent republic of Liberia, after the encroachments of the French and English and petty enclaves retained by Portugal and Spain on the shores of Senegambia and the French Congo. As the result of the struggle for spheres of influence in this part of Africa and in other previously unoccupied regions of the earth, the whole undeveloped interior has fallen to France, whose possessions hem in British Gambia, which is now confined to a narrow strip along the banks of the river, confine Sierra Leone and Liberia to the coast region controlled by the actual settlements, inclose the British Gold Coast colony and German Togoland, restrict the *Hinterland* of Cameroons to a conventional frontier, and shut in by treaty Nigeria from extension eastward into the central Soudan. However, in this region the British, who through the instrumentality of the Royal Niger Company developed the greatest activity here, have made good their claim to a wide and promising country traversed by the maritime Niger and the navigable part of the Benue.

The low import duties levied on spirits, 1s. a gallon in Togo and the neighboring British colonies, only 8d. in Dahomey, and not over 4s. 6d. in any part of the coast, have made drinking as easy and cheap as in almost any part of the world. Bishop Herbert Tugwell, of the Anglican West African diocese, in making a public plea for a duty of 10s. 6d. a gallon, the same as in the United Kingdom, called attention to the extraordinary consumption of spirits by the whites on the coast, estimated to average 12 gallons per annum a man, attributed 75 per cent. of the

deaths among Europeans to drinking at all hours and drunkenness. For this statement the Governor of Lagos instituted a prosecution for criminal libel at the demand of the white people; but the charge was withdrawn by the public prosecutor because it could not be legally sustained. In May, 1899, the import duty on spirits was increased 1s. a gallon in the Niger Coast protectorate. An international conference on the African liquor traffic was held at Brussels, at which it was agreed to raise for the period of six years the minimum import and excise duty on spirituous liquors throughout the zone where the general act of Brussels does not provide for total prohibition, from 15 francs a hectolitre at 50° centigrade (the rate fixed by that act) to 70 francs, except in Togo and Dahomey, where it may be exceptionally at the rate of 60 francs. The convention was signed by plenipotentiaries of Germany, Belgium, Spain, the Congo State, France, Great Britain, Italy, Netherlands, Portugal, Russia, Sweden and Norway, and Turkey. The Spanish and Turkish representatives only signed the treaty *ad referendum*. The German representative read a declaration protesting against the differential treatment accorded to certain spirituous liquors in some African colonies, and stating that the German Government on the occasion of a future revision of the convention would make its co-operation dependent on the general aspect which this differential treatment may at that time present. The British representative read a declaration protesting against the insufficiency of the duties, stating that his Government had agreed to the rate solely in order that the labors of the conference should not be without any result, and hoped that at the end of the six years the rate would be raised, and that even before that date, should the need of revision make itself apparent, the powers would not refuse to reconsider the matter at the invitation of the British Government. The convention provides for a new conference at the end of six years and a revision of the import duty, to be based on the results produced by the present rate. The powers retain the right of maintaining or increasing the duty beyond the minimum in the regions where they already possessed that right. The British plenipotentiary had pressed for a duty of 100 francs a hectolitre, equal to 4s. a gallon. The rate of duty had already been raised on the British Gold Coast to 4s. 6d. a gallon, on the French Ivory Coast to 3s. 9d., in Sierra Leone and in Cameroons to 3s. At Lagos and in the Niger territory it had recently been increased from 1s. to 2s. In the *Hinterland* of the Niger Coast protectorate absolute prohibition was proclaimed. In the Niger territories, inhabited to a great extent by Mohammedans and coming within the prohibition regions prescribed by the Brussels act, the prohibition was made general by a proclamation of Sir George Taubman Goldie before the transfer of the territories from the Niger Company to the British Government.

British Possessions.—The British and French spheres have by various agreements been so completely delimited that it is possible to make an approximate estimate of the extent of the British possessions. By the agreement of 1898 Great Britain relinquished 150,000 square miles previously claimed in the Niger region, reducing the area of the Niger territories to about 350,000 square miles, with a population between 15,000,000 and 25,000,000. The *Niger Coast protectorate* is about 3,000 square miles in extent. The Royal Niger Company, formed in 1882 with the main object of obtaining the Niger regions for

Great Britain, has by means of its trading monopoly driven French and German merchants as well as political agents from the field, and has paid dividends on its capital of £1,100,000. The trade of the Niger Coast protectorate has been carried on by a company of Liverpool merchants, who likewise have been excluded from the Niger river by the regulations of the chartered company. The protectorate has heretofore been administered by a commissioner under the direction of the Foreign Office in London. The revenue in 1898 was £153,181, of which £145,440 came from customs; expenditure, £121,900. The imports in 1898 were £639,698; exports, £750,223. The trade in palm oil and palm kernels gave the name of the Oil Rivers district to the country traversed by the Calabar, Brass, and other creeks. Besides these commodities, caoutchouc, ivory, ebony, camwood, indigo, gum, barwood, and hides are exported. Cacao is grown, and plantations have also been started in the *Niger territories* where the cultivation of coffee has been introduced also. The natural products are gums, caoutchouc, ivory, palm kernels, palm oil, vegetable butter, and skins. The military force of the Royal Niger Company, consisting of 1,000 Hausa troops, was supplemented in 1898 by 2,400 black troops raised by Col. F. D. Lugard, which were stationed in Borgu after the subsidence of the excitement caused by the French occupation of a port on the navigable Niger. A public debt of £250,000 was contracted by the Royal Niger Company while contending with France for the possession of Sokoto and Gandu on the middle Niger and with Germany for the countries on the Benue. Early in 1897, when the trial of strength with foreign governments was nearly ended, the Emir of Nupe denied the authority of the company over the country that he occupied with an army of 30,000 men. The Sultan of Ilorin was also defiant. Sir George Goldie, with a force of 800 men, defeated first one and then the other, and issued a decree abolishing the legal status of slavery under the judicial system of the company. The introduction of firearms and spirits into the interior was already prohibited.

Immediately after the ratifications of the Anglo-French convention of June 14, 1898, were exchanged the British Government arranged with Sir George Taubman Goldie, chairman of the Royal Niger Company, the terms of the transfer to the Imperial Government of the administrative authority and territorial rights of the company, together with lands and mineral rights that it was thought desirable to take over and the buildings, military stores, etc. The trading rights to be retained by the company were only such as all other traders possessed, not the virtual monopoly that the control of transport facilities and trading stations, the possession of both banks of the river, and the right to collect duties and tolls had previously preserved. The compensation that the Government agreed to pay was £865,000, representing the debts incurred and advances from profits for administrative expenses and the value of the lands, buildings, mineral rights, etc., acquired from the company. The treaties that the chartered company in its sovereign capacity had made with native rulers contained a clause binding them, when called upon to do so by the company, to place their territories under the protection of the British flag. The trading stations, river depots, wharves, rights of way, factories, and all the rest of its plant and trading assets are retained by the company. The 5-per-cent. debt of £250,000 the Government assumed with the right reserved of redeeming the bonds at any

time at 120. The Government agrees to impose a royalty on all minerals in the part of Northern Nigeria between the Niger and a line running from Yola to Zinder, and to pay half the receipts to the company for ninety-nine years. Of the total sum £820,000 were raised by a loan and £45,000 paid out of revenue, besides which £75,000 were voted for new buildings and the expense of starting the new administration. The entire sum paid to the chartered company was made a charge on the revenues of the new colony. The lands acquired by the Government from the company consisted of a narrow strip extending along both banks of the Niger, nowhere above 2,000 yards wide, but having a total area of 500 square miles. It was the possession of this strip that enabled the company to shut out completely any other traders from sharing the Niger trade. The customs frontiers between Lagos, the Niger Coast protectorate, and the Niger Company's territory were abolished and a common tariff established, except that the importation of spirits into Northern Nigeria was prohibited. In order to guard the better against their introduction into Northern Nigeria a neutral zone is established on the border of Southern Nigeria, within which spirits can be sold but not kept in store. The whole country was divided into the three colonies of Lagos, Southern Nigeria, and Northern Nigeria. Southern Nigeria, embraces the Niger Coast protectorate and the southern part of the Niger Company's territory. Col. Lugard was appointed Governor of Northern Nigeria. The Niger Company, whose charter was to be revoked on Jan. 1, 1900, decided to go on as a concern for trading, banking, the working of forests, the cultivation of indigo, tobacco, and other indigenous products, and generally for any financial and industrial objects. The capital was reduced to £319,760. The actual cash capital on which the company had been built up was said to have been about £160,000; but, in spite of deficit shown in the administrative account, the company had paid large dividends on the nominal capital every year.

The colonial loans bill passed by the British Parliament authorized a loan of £43,500 to the Niger Coast protectorate for harbor works at Old Calabar. This, as well as the rest of the English colonies, has made much progress lately in trade. The revenue for 1898 was £13,000 more than the previous average, which was £140,000.

There was severe fighting at the beginning of 1899. In an attack upon the Niger Company's forces, numbering 400, at Illah, several officers were wounded. After being re-enforced by a body of the West African frontier force, the troops attacked and destroyed Ibo, Kuka, and several other native towns and killed a great many natives. In April the troops of the protectorate marched against the chief Ologboshi, instigator of the Benin massacre in 1897, who was finally captured after the troops had burned six towns, and was executed early in July. In the territory of the Niger Company Capt. Carter was killed in April while attempting to scale the wall of Suntai, a town near the upper Benue, whose chief was committing depredations on his neighbors. A punitive expedition of Hausa troops with mountain guns captured Suntai and its chief in July, after inflicting heavy loss upon the defenders. In September there was prolonged fighting with the Fula tribes on the Benue, and a great many persons were killed and eight towns burned because there had been interference with the river traffic. In Northern Nigeria, which covers about 300,000 square miles, military operations under Col. J. Willcocks were directed to establishing fortified

posts along the western boundary, where the frontier was not yet demarcated, opposite similar posts held by French troops, and to occupying the Niger from Ilo northward. The forts were garrisoned with British troops, of which there were two battalions, three batteries, and a company of engineers, besides a large number of officers and noncommissioned officers for the native troops.

The *Gold Coast* colony proper has an area of about 15,000 square miles, with a population estimated at 1,473,882. There are about 500 whites. The protectorate behind the colony is the Kingdom of Ashantee, now controlled by the British resident commissioner at Kumassi. It has an area of about 31,000 square miles. There are 626 miles of telegraphs. The exports are caoutchouc, palm oil and kernels, and woods. The revenue of the colony in 1897 was £237,857; expenditure, £406,370; imports, £910,540; exports, £857,793. There are many gold mines, some of which are now worked by modern methods. A railroad from Secondee to the gold mines of Tarquah is being built, and this will probably be continued to Kumassi. Another line from Accra to the Volta has been authorized, and for these railroads and for an improved landing at Secondee and harbor works at Accra the Imperial Parliament has authorized loans amounting to £676,000. The Ashantees have been restless because they have no king. Capt. Donald Stewart, in exploring the back country about Wam with Hausa troops, had several encounters with the inhabitants, who objected to compulsory labor on telegraphs and to the house tax. The Ashantees, who formerly numbered 25,000 at Kumassi, all left when the English took the place, which now has only 2,000 inhabitants. Domestic slavery and slave dealing are common still, although slaves are sold by the British that they can leave their masters if they will. Searches for the buried gold of King Prempeh have proved fruitless, and the indications are that the hoards were stolen by the chiefs without the King's knowledge.

Sierra Leone, including the island of Sherbro and annexed territories back of the old colony, has an area of 30,000 square miles and about 250,000 inhabitants. The area of the colony proper is 4,000 square miles, with 74,835 inhabitants, including 224 whites. Freetown, which is the headquarters of the British troops in West Africa, has 30,033 inhabitants. The exports are palm kernels, caoutchouc, kola nuts, ginger, ground nuts, copal, benni seed, and hides. The revenue in 1897 was £106,008; expenditure, £111,667; imports, £457,389; exports, £400,748. The rebellion in 1898 disturbed the normal course of trade. The imports were £606,348 and exports £290,991 in value. The revenue was £117,682, the largest ever collected, in spite of the native rising, which affected some of the ordinary sources of revenue. The expenditure was £121,112, which was also unusually large on account of the insurrection. Of the imports, five sixths came from Great Britain, which took about half the exports. A railroad from Freetown to Moyamba, opened in May, 1899, for 30 miles to Songtown, and extended to Rotofunk before the end of the year, has been built with the aid of a loan of £310,000 guaranteed by the British Government. Columns of troops marched through the country that was the scene of the rebellion, to overawe the natives, who showed no disposition, however, to renew the disturbances in 1899. All the chiefs were brought down to the coast as prisoners. The people rebuilt their towns and planted crops. Sir David Chalmers, the special commissioner appointed to inquire into the causes of the rising and report on

the administration of the colony and of the protectorate, condemned the imposition of the hut tax in the protectorate, which was the cause of the rebellion, and recommended the restoration of the chiefs, who should be intrusted with the ordinary administration and police work under supervision, rather than the frontier police. The commissioner suggested that the subjects of a protectorate have rights, and it should be a work of forbearance and patience, rather than of overpowering force, to instruct them that they have duties and obligations toward the protecting power. By the encouragement of agriculture and industry and of missionary teaching, and by wise and sympathetic government on fixed principles of justice, he believed that the gradual raising of the level of civilization and the increase of population and industry would result in enough revenue for all needs, whereas endeavors to compel revenue by shortsighted and unsuitable means must result in failure. Sir Frederick Cardew, the Governor, defended his policy, and Mr. Chamberlain rejected the recommendations of the special commissioner. He decided to retain the house tax at the original amount of 5s. a house, giving the Governor power to remit it where he thinks it is excessive, and giving the poorer natives the option of paying it in labor. He commended the opinion of the Governor that "the exercise of force, peremptory, rapid, and inflexible, was the element to be relied on," and approved all the actions of the district commissioners and other European officers whom Sir David Chalmers, once Chief Justice of Sierra Leone, charged with acting with oppressive severity, with making arrests illegally, and with other breaches of the protectorate ordinance. Of the prisoners arrested after the suppression of the insurrection, 151 were condemned to death. Bai Bureh, the leader of the rebellion, was deported. The punitive expedition under Col. E. R. P. Woodgate, which marched through the Timani and Mendi country in five columns, not only destroyed 40 villages in the country that was lately in rebellion, but marched into unexplored regions of the hinterland after concentrating at Waïma, and in order to impress the ignorant natives, especially the powerful Gissi tribe, with the strength and mobility of the British forces, destroyed most of the stockaded towns, the natives having already destroyed their stores of rice and grain and cut all their bridges. The punitive operations were followed by a proclamation of amnesty throughout the provinces of the protectorate where the hut tax was confined. The Colonial Secretary decided to impose a hut tax in the colony too, in order to remove the inequality of which the people of the protectorate complained. A hut tax was formerly collected in Sierra Leone, but it was repealed by Sir John Pope Hennessy, whose policy was as popular among the Sierra Leoneans as that of Sir Frederick Cardew has been unpopular. The colony itself has been declining, owing to the competition of the French Government and people in their neighboring possessions. Since by agreement with France a hinterland containing 1,000,000 inhabitants has been secured, which produces rice, rubber, kola, gum, palm kernels and oil in abundance, the light railroad that has been built is expected to develop a considerable commerce, and already the trade is increasing. Simultaneously with the operations in the north one of the new West African regiments and the frontier police advanced into the Kissi country on the Liberian frontier. The chiefs resisted the invasion, finally making their submission after a great number of their people had been killed and 50 villages

burned down. The West African regiments have been recruited from the Mendis and Kimanis, the warlike tribes lately in revolt against the hut tax, and they receive higher pay than the West Indian regiments which have constituted the British military force on the coast hitherto. The British Government in 1899 renewed the demand for compensation from the French Government for the families of British officers killed in the collision with French troops at Waima in 1896. The French have protested that Waima is in Liberian, not in British, territory, while the English assert that it is several miles on their side of the border.

Lagos, the Gold Coast, Sierra Leone, and Gambia are Crown colonies. The island of *Lagos* and the protected territory on the coast have an area of about 1,500 square miles and a population estimated at 100,000. The country of Yoruba in the interior has an area of about 18,500 square miles, with 3,000,000 inhabitants. The revenue of Lagos in 1897 was £177,421, of which £159,819 came from customs; expenditure, £182,669. The value of imports was £770,511; exports, £810,975, of which £306,834 represent palm kernels, £283,184 caoutchouc, and £97,591 and the remainder ivory, gum copal, cotton, cacao, and coffee. There are about 200 Europeans in Lagos. The colonial loans bill included a loan of £792,000 to build a railroad from Lagos through Abeokuta to Ibadan, whence it is to be carried to the Niger. The line runs through a thickly peopled and productive district, the town of Abeokuta having a population estimated at 150,000 and Ibadan 200,000. The railroad was opened to Abeokuta early in 1899, and thousands of men were at work constructing the extension to Ibadan. The Egbas objected to the alienation of the lands through which the railroad runs, and only agreed to give a lease when a large force of Hausa troops was moved into their country.

Gambia has an area of 2,700 square miles, with about 50,000. The population in the settlement, covering 69 square miles, is 14,978, of whom 62 are whites. Ground nuts, caoutchouc, rice, cotton, and corn. The revenue in 1897 was £39,415; expenditure, £27,059; imports, £176,328; exports, £165,894.

French Possessions.—By the last two agreements with Great Britain the French have succeeded in uniting all their possessions in Africa in one continuous empire. The area and population of the chain of protectorates and spheres of influence extending from the Congo to Algeria and Tunis, and from Senegal to the watershed of the Nile, can be only vaguely estimated. The Sahara region south of Algeria is reckoned at 1,684,000 square miles, with a population of 2,500,000; the French Soudan at 250,190 square miles, with 4,900,000 population; Senegal at 115,800 square miles, with 2,000,000 population; the Ivory Coast and hinterland at 64,420 square miles, with 650,000 population; Dahomey at 14,140 square miles, with 600,000 population; Bagirmi, declared a French protectorate in 1897, at 65,650 square miles, with 1,000,000 population; the French Congo at 496,920 square miles, with 8,950,000 population. These make together a total area of 2,691,120 square miles, with an estimated population of 21,600,000. Algeria and Tunis, with the Algerian Sahara, bring up the total to 3,049,934 square miles, with 27,580,000 population. Included in the French sphere as now recognized by England are furthermore the Mohammedan countries of the central Soudan. Bornu has an area estimated at 50,000 square miles and a population estimated at 5,000,000,

while Wadai and Kanem have an area estimated at 107,000 square miles and a population of about 1,600,000. East of these are other territories falling within the French sphere, and on the north are the desert regions of the eastern Sahara, containing Tibesti, Borku, and other inhabited countries.

The *French Congo* and *Gabun* territories extend along the north bank of the Congo and the Mobangi eastward to the Anglo-Egyptian sphere on the Nile, and run northward behind the Cameroons and along the eastern bank of the Shari to Lake Chad. The whole region is mostly covered with forests. There are about 300 Europeans besides the military. The export of caoutchouc in 1897 was 518 tons; of ivory, 105 tons; of palm oil, 140 tons; of palm kernels, 806 tons; of ebony, 1,748 tons; of mahogany, 3,421 tons. Kola nuts, prassava, and other products are also exported, and coffee and cacao are cultivated. The local revenue in 1898 was 3,501,400 francs. The expenditure of France for 1899 was 2,491,165 francs.

Bagirmi is a marshy country on the shore of Lake Chad and the bank of the lower Shari. In accordance with a treaty made with the Sultan a French resident was appointed to Massenia, the capital. The people are Mohammedans, who hold in subjection pagan tribes in the south and hunt slaves in the territories beyond.

Senegal is a French colony, consisting of the port of St. Louis and chains of stations on the river Senegal and along the coast between Gambia and Cape Verde, each with a district around it defined by fixed boundaries. The total population of these settlements is about 135,000. The Governor General is assisted by a Colonial Council. The colony is represented by one Deputy in the French Chamber. The troops, French and native, number 2,508, with 66 officers. The railroads have a length of 248 miles. There are 574 miles of telegraph line, with 1,022 miles of wire. The trade is almost exclusively with France, from which merchandise of the value of 23,524,534 francs was imported in 1897, of which 14,242,351 francs represent imports for consumption within the colony, while native produce of the value of 13,532,087 francs was exported to France. The exports are ground nuts, gums, caoutchouc, palm kernels, palm oil, hides, mats, and gold. The revenue collected in 1898 was 3,929,367 francs. The contribution of France for 1899 was 6,106,942 francs.

The settlements of *French Guinea*, formerly united to Senegal, were made a separate colony in 1890 and called originally the *Rivières du Sud*. The capital is Conakry, on the island of Tombo. The population of the colony proper is 47,541. The value of the imports in 1896 was 4,634,000 francs, of which 525,000 francs came from France; the exports were 5,787,000 francs, of which 864,000 francs went to France.

The *French Soudan* embraces the territory on the upper Senegal, and districts some distance beyond that have been annexed by France and are under the direct administration of the military commandant residing at Kayes and also the Mohammedan countries on the upper and middle Niger and in the rear of the Ivory Coast and Liberia, including Samory's and Tieba's kingdoms. The annexed territory has an estimated area of 54,000 square miles and a population of 360,000; the protectorates are estimated to have an area of 300,000 square miles and 2,500,000 inhabitants. The military commandant acts under the instructions of the Governor of Senegal. A railroad, 94 miles in length, runs from Kayes toward the Niger as far as Bafoulabe. The ex-

ports are mainly earth nuts, but gum, caoutchouc, and rice are also exported. Iron is abundant for native use, and some gold is obtained. The imports in 1897 were valued at 8,551,805 francs and exports at 4,777,282 francs. The local revenue in 1897 was 2,725,500 francs. The expenditure of France for 1899 was 6,873,000 francs.

The *Ivory Coast* colony, east of Liberia and west of the British Gold Coast, consists of the settlements of Grand Bassam, Assinie, Grand Lahou, and Jackeville. Attached to it are the kingdom of Kong and other protected territories in the interior. The imports in 1896 were 4,638,000 francs in value, of which 800,000 francs came from France; exports, 4,400,000 francs, of which 2,236,000 francs were exports to France.

Dahomey, having a coast line extending from German Togoland to British Lagos, embraces the coast district, which has long been French, with settlements at Porto Novo, Kotonu, Grand Popo, and Whydah, and also the negro kingdom from which the colony takes its name—the capital of the protectorate, Abomey, being 70 miles inland. The people of the protectorate are fetich worshippers, but are industrious and skillful, furnishing the best palm oil shipped from the Guinea coast, cultivating corn, and rearing cattle. The exports of palm oil are about 10,000 tons per annum, and of kernels 20,000 tons. The expenditure of France on this colony in 1898 was 1,885,000 francs. The total value of imports in 1896 was 9,729,000 francs, of which 3,741,000 francs came from France; exports, 9,100,000 francs, of which 3,896,000 francs went to France. A railroad is projected from Porto Novo through Abomey, Carnotville, and Nikki to Madicale on the Niger, and the first section to Abomey has been undertaken by a company. A head tax of 2 francs 25 centimes on the coast and 1 franc 25 centimes in the interior has been imposed, and the chiefs are intrusted with its collection, retaining 25 centimes for themselves.

The exploration of the part of the French Soudan between Say and Lake Chad north of the boundary fixed by the Anglo-French agreement of 1898 was committed to Capt. Voulet and Capt. Chanoine after the assassination of Capt. Casemajoux at Sinder, in May, 1898. The new expedition reached Sansanne Hausa, above Say, on Jan. 2, Capt. Chanoine having marched with 360 *travailleurs* through the mountainous country of Bandiagary, the country of the Samos, and Mossi, while Capt. Voulet with the rest of the expedition and the stores and ammunition proceeded by the river. In March the expedition set out for Lake Chad. Lieut. Peteau, who was sent back to the coast, made charges of abuse of authority and gross cruelty to the natives against the leaders of the expedition. Lieut.-Col. Grave, commandant of the eastern Soudan and the French resident at Say, held an inquiry, the result of which was that the Government ordered Lieut.-Col. Klobb, commanding the northern district of the Soudan, to pursue the Voulet-Chanoine expedition, take over the command, and investigate the charges. Proceeding from Kayes, Lieut.-Col. Klobb, accompanied by Lieut. Meynier and an escort of 45 native sharpshooters, found Voulet at Damangara, near Sinder, on July 14. Capt. Voulet replied to his message that he had 600 rifles, and would receive him as an enemy. Lieut.-Col. Klobb, directing his men not to fire if fired upon, advanced, paying no heed to Capt. Voulet's summons to halt and threat to open fire if the party came nearer. When Lieut.-Col. Klobb's party still advanced three volleys were fired by order of Capt. Voulet, killing Lieut.-Col. Klobb,

severely wounding Lieut. Meynier, and killing or wounding 19 of their escort. Voulet and Chanoine had attempted to escape by forced marches through English territory when they first heard of Lieut.-Col. Klobb's approach, but afterward Capt. Voulet with 100 men had come to Damangara to meet him, and had first appealed to his men before ordering them to fire, saying that Col. Klobb would take away the slaves he had given them. The mutinous officers, who had under them 2 lieutenants, 1 French sergeant major, 2 sergeants, 1 surgeon, 20 spahis, 50 Sudanese sharpshooters, and 1,000 irregulars armed with rifles and lances, were proclaimed as outlaws, and messages to that effect were sent to French commands in that part of Africa. Lieut.-Col. Klobb, who had courageously accepted the task of arresting the two madmen, saying that a soldier should never decline a responsibility, found everywhere along the route of his rapid march evidences of the truth of the accusations against them. They had massacred and burned without any apparent motive except to spread terror, and dragged along with them a horde of captives like those that Samory collected in his devastating raids, among whom they had formed an auxiliary force which they supplied with rifles, fearing that the sharpshooters would not follow them to the end. Capt. Voulet, returning to the mission after the murder of his superior officer, informed the Europeans of what he had done, and said that he had revolted against France and that he would take the sharpshooters and his auxiliaries with him in order to create an independent state in Africa. Those who would not join him might return to the Soudan. Chanoine agreed to join him, and they went off to a neighboring village with two noncommissioned officers, the sharpshooters, and the guns and ammunition. One of the sergeants came back, and a day or two afterward the sharpshooters killed Voulet and Chanoine and returned to the mission, of which Lieut. Pallier had taken command. The mission occupied Sinder on July 20, putting to flight the chief who had murdered Capt. Casemajoux. Leaving Lieut. Toalland there with 200 men, he returned to Dosso, discharged 300 of his men, and made preparations to join the Foureaux-Lamy mission in order to place himself under the orders of Major Lamy. The mission of M. Foureaux and Major Lamy had for its object the opening of communication between Algeria and Lake Chad. It arrived at the oasis of Air in May, after some slight encounters with the Tuaregs, who afterward showed themselves friendly and supplied food and transport. The way to Agades was blocked by other Tuaregs, who were also repelled. The caravan reached the southern border of the desert late in the year, but did not venture to approach Lake Chad. Besides the Voulet-Chanoine and the Foureaux-Lamy expeditions a third one was dispatched from the south to join the others in the neighborhood of Lake Chad, and possibly with their aid strike a blow at the power of the Sultan Rabah, whose capital is near the southern end of Lake Chad. The force coming from the French Congo was the Gentil-Bretonnet mission. The advance guard under M. Bretonnet was attacked near the Shari by Rabah himself at the head of a large force. With three small guns the explorer and his little band held out for several hours and killed a considerable number of the enemy. In the end the three Europeans, together with 2 Arabs and 27 Senegalese, were killed, while 3 got away and brought the news to M. Gentil. Another French party under M. de Béhagle, sent out by a commercial syndi-

cate, had been crushed by Rabah, who held its leader a prisoner. The main body of the Gentil expedition had already reached the borders of Wadai and Bagirmi, where its mission was to spread French influence. On learning of the disaster that had befallen his companion's detachment, M. Gentil did not then proceed farther into the regions where Rabah and Zobeir Pasha rule. A more powerful force was organized in French Congo, with which he advanced later in the year to the border of Dikka, the seat of Rabah's power, on the Shari river, near the point where it enters Lake Chad. M. Gentil found Rabah's army of 12,000 men, with 2,500 rifles and 3 guns, entrenched at Kouna. The guns were quickly destroyed by the French field pieces, and after a long and stubborn fight Rabah's forces were put to flight after more than 2,000 were killed, and he himself was wounded. Gentil was unable to follow up the victory, as only half his own force was left, 43 of the Senegalese sharpshooters having been killed and 4 Europeans and 103 of the men wounded. He waited at Kouna until M. de Lamothe, Governor of the French Congo, could send him re-enforcements. Meanwhile the Sultan of Bagirmi, over whom Rabah had tyrannized, offered to join the French in overthrowing his power. The military expenditures in 1898 were so great, exceeding the credits voted for the Soudan by 4,000,000 francs, that the French Government decided to change the system of administration by placing the military authorities under the control of the civil power, as in Indo-China. A decree was signed on Oct. 17 by which the French Soudan ceased to be a distinct dependency, its territories being divided and apportioned to Senegal, French Guinea, the Ivory Coast, and Dahomey, all of which possessions are placed under the Governor General of West Africa, whose seat is at St. Louis.

German Possessions.—The German protectorates of Togoland and Cameroons have an estimated extent, the former of 33,000 square miles, with 2,500,000 inhabitants, the latter of 191,130 square miles, with 3,500,000 inhabitants. *Togoland* is on the Slave Coast, between Dahomey and the British Gold Coast colony. The European residents numbered 110 in 1898, all except 8 of them Germans. Lome, Little Popo, Porto Seguro, and Bagida are the seaports. The military force consists of 150 native soldiers under 7 Germans and 100 police. The exports are gum, cacao, palm oil and kernels, caoutchouc, and dyewoods. Corn, yams, tapioca, ginger, and bananas are cultivated. The cultivation of coffee has been introduced. The revenue, which is mainly derived from import duties, was 382,020 marks in 1896; expenditure, 388,180 marks. The imports in 1897 were of the value of 1,975,940 marks, against 1,886,840 marks in 1896; exports, 771,025 marks, against 1,651,416 marks. By the Anglo-German agreement of November, 1899, the neutral zone back of Togoland and the British Gold Coast was divided on terms more favorable to Great Britain than Germany had before been willing to concede, in consideration of the renunciation of British rights in Samoa. The district that was left neutral because Germany and Great Britain could not agree on a line of division in 1888 was the only large territory in West Africa as to which there was still a dispute between European powers. In previous negotiations regarding the division England proposed to draw the line so that of the two large trading centers Salaga should be British and Yendi German. Germany was willing to consent on condition that the corner of the Gold Coast lying east of the Volta river,

having an area of about 2,000 square miles and a population of 600,000, should become German territory. This the British Government would not agree to, because the district had long been British and was very valuable. Germany has withdrawn this claim, and has further conceded to Great Britain the province of Mamprusi, north of the neutral zone, with the important trade center of Gambaga for its capital, while the neighboring province of Chakosi, of which the capital is Sansane Mango, is recognized by Great Britain as German.

Cameroons is inhabited by Bantu negroes in the coast region and Soudan negroes in the interior. The protectorate extends northward to Lake Chad. The Europeans residing in the country in 1897 numbered 253, of whom 181 were Germans. The military force consists of 28 Germans and 341 native soldiers. Coffee, cacao, and tobacco plantations have been started near the coast, where the soil, being of volcanic origin, is very fertile. The cultivation of caoutchouc has been attempted, and cloves, vanilla, ginger, and pepper are grown experimentally. The revenue, which is mainly derived from import duties, was 546,560 marks, which the German Government supplemented with a contribution of 620,000 marks; expenditure, 1,383,400 marks. Gold and iron exist. The value of the imports in 1897 was 5,340,000 marks; of exports, 3,706,000 marks, the principal articles being palm kernels for 1,320,000 marks, palm oil for 980,000 marks, caoutchouc for 1,000,000 marks, ivory for 370,000 marks, ebony for 111,000 marks, and cacao for 44,000 marks. The German authorities early in 1899 began a campaign for the suppression of slave raiding and the establishment of their power in the hinterland sufficiently to enable expeditions to explore the country up to Lake Chad. Capt. von Kamptz, with 375 men, marched against the chief of the Wute tribe. The Sultan of Tibati, whose troops were well armed and mounted, came to the assistance of his vassal, and this necessitated a campaign against him, which was undertaken in the autumn. This was so successful that the Sultan was taken prisoner.

WEST INDIES. With the exception of Hayti-Santo Domingo, Cuba, and Porto Rico, all the West Indian islands are dependencies of European powers. In speaking of the West Indian colonies it is usual to include British Guiana, French Guiana, and Dutch Guiana on the mainland of South America, and British Honduras in Central America. Reciprocity treaties were concluded in 1899 between the United States and 5 of the principal British colonies in the West Indies. In consideration of certain reductions of the colonial import duties upon American products, British Guiana, Jamaica, and Trinidad obtain a reduction of 12½ per cent. in the duty upon sugar entering an American port; Jamaica, a reduction of 20 per cent. on citrus fruits; pineapples, and vegetables; Trinidad, 12½ per cent. on asphalt; Barbadoes, 12 per cent. on sugar. The reduction of the duty on sugar, in connection with the advantage given in the United States by discriminating duties on the bounty-fed beet sugar of Europe, is calculated to be worth at least \$4.25 a ton to the West Indian planters, and to be as advantageous as if they had prevailed upon the British Government to impose countervailing duties for their benefit. Three quarters of the 200,000 tons exported by the 4 colonies that have obtained reciprocity already goes to the United States, and under the new treaties the remaining 50,000 tons are likely to go there. Most of the crop of 50,000 tons produced by the other

British West Indian islands is also consumed in the United States. These British colonies have suffered more than any others from the depression in the price of sugar, especially those that are not adapted by Nature for the production of other crops, such as Barbadoes, Antigua, St. Kitt's, and Nevis, and the lowlands of British Guiana. Except in British Guiana and Trinidad, the product is the coarse muscovado, obtained by antiquated processes. The development of improved varieties by selection and cross fertilization is only in its infancy, and yet a variety has been obtained in Barbadoes that contains 25 per cent. more saccharine matter than ordinary cane.

British Colonies.—The British West Indian possessions, including British Guiana and British Honduras, consist of 8 colonies, each administered by a Governor, assisted by a legislative body, which in some of the colonies is nominated by the Crown, in others elected by the people. The largest of the British West India islands is Jamaica, which has an area of 4,424 square miles, inclusive of Turk's and Caicos islands, the Caymans, and the Morant and Pedro keys. Jamaica itself has an area of 4,193 square miles, with a population estimated at 706,394. The white population was only 14,692 in 1891, and has dwindled since, while the negro and colored population has grown at the rate of 1.6 per cent. a year. There were 14,118 East Indians in 1896, of whom 1,562 were indentured to planters. The area cultivated in 1897 was 663,560 acres, of which 164,644 acres were tilled lands, while 498,916 acres were pasture. The area under sugar cane was 28,764 acres; under coffee, 22,387 acres; under bananas, 19,760 acres; under cocoanut palm, 10,799 acres; under ground provisions, 80,656 acres. The imports declined from £2,288,946 in 1895 to £1,660,667 in 1897; exports from £1,873,105 to £1,448,443. The imports of cotton goods were £208,318; fish, £110,240; flour, £162,378; rice, £40,432. The exports of sugar were valued at £120,959; of rum, £92,053; of coffee, £165,494. The imports in 1898 were £1,674,381 and exports £1,448,443 in total value. Of the imports 43 per cent. were from the United States and 47.2 per cent. from Great Britain; of the exports 62.3 per cent. went to the United States and 22.6 per cent. to Great Britain. The aggregate tonnage of vessels entered and cleared in the foreign trade during 1897 was 1,560,944 tons. The shipping belonging to the colony comprised 124 sailing vessels, of 6,694 tons, and 1 steamer, of 459 tons. There are 9 railroad lines, having a total length of 185 miles. The receipts in 1898 were £102,170; expenses, £74,592. The number of passengers carried was 356,949. The number of letters and postal cards sent through the post office in 1897 was 4,955,712. The telegraphs have a length of 937 miles; telephones, 831 miles. The number of telegrams in 1898 was 87,545; receipts were £5,086, and expenses £7,686. The military force is mainly composed of colored troops, numbering 1,790 of all ranks on Jan. 1, 1898. The revenue of the colony in 1897 was £677,064, having declined from £818,687 in 1895; expenditure, £766,534. Of the revenue £283,042 came from customs. The public debt amounted to £1,994,184. The chief expenditures were £112,651 for debt, £62,410 for police, and £40,982 for public works. In 1898 the revenue fell to £540,509, while the expenditure was £627,422. The decrease in revenue was due to a decline in imports and in the consumption of rum, caused by the general business depression. The total debt at the end of 1898 was £1,992,284, most of it paying 4 per cent. On March 31, 1899, there was a deficit of £154,784,

the expenditure having for several years exceeded the revenue. To cover it the Imperial Parliament authorized a guaranteed loan of £150,000. The Jamaica Railroad Company has failed to meet its obligations, and its line will have to be taken over by the Government, which was authorized to borrow £88,000 to settle arrears of interest, and £110,000 to complete and equip the railroad. Another loan of £40,000 has been raised to complete the waterworks and irrigation service, and one of £65,000 for sewerage and street pavements in Kingston. The economic prospects of Jamaica are more hopeful than those of the islands that are still entirely dependent on sugar. In 1882 sugar formed 77 per cent. of the total exports, in 1898 15 per cent. The other articles are coffee, logwood, bananas, oranges, pimento, ginger, cacao, cocoanuts, and tobacco. The coffee grown on the Blue mountains at elevations of 3,000 to 5,000 feet commands the highest price in the London market, and that grown in plantations on the lower levels is of good quality, but the Liberian coffee raised by negro settlers does not sell well because it is badly cured. Logwood and pimento grow wild. The low prices of coffee and logwood and a poor yield of pimento caused a serious falling off in the value of these exports in 1898. Cacao is grown in combination with bananas, which shade the young trees until they come into bearing. Ginger is a product for which Jamaica is famous, but the cultivation is rapidly diminishing. Tobacco of good quality has been grown of late years by immigrants from Cuba, and the export of cigars increased from £2,126 in 1887 to £13,984 in 1898. The further expansion of this trade is likely to be retarded by an export tax that the Government now levies on cigars and cigarettes. Sir David Barbour, who as a special commissioner examined into the finances of Jamaica, attributed the excessive expenditure to the division of responsibility between the Government and the elected members of the Legislative Council, and thought the Governor should have greater power by always keeping up the full number of nominated members. The elected members, in a memorial to the Colonial Office, complained of the desire of the Imperial Government to protect British manufactures, which had thus far stood in the way of reciprocity with the United States; complained of the high salaries paid to English officials when capable colonists would work for less; charged the colonial executive with incompetence and neglect; and laid all the blame for the disordered finances upon the Government, which had increased the expenditure despite their protests. Mr. Chamberlain, in reply, placed the responsibility for the deplorable financial position of the island at their door, saying that they had failed to exercise the powers of control with which they had been invested. The salaries of the higher officials he considered none too high, as it was necessary to maintain a scale of salaries for the highest posts that will attract competent men, but in the lower ranks of the public service there might be superfluous offices that should be abolished. When the Legislative Council opened, on March 14, Sir Augustus Hemming, the Governor, announced a new tariff bill, a change in the land tax and minor revenue measures. The elected members refused to pass the tariff measure. They demanded retrenchment, not increased tariff duties that would aggravate the trade depression. The provisions of the new tariff applied specially to such imports as came from the United States. By Mr. Chamberlain's directions, the Governor added 4 nominated members. This made the people very indignant, but the 4 new members were

not enough to turn the scale, and so a deadlock resulted. On March 24 the Council was adjourned for a month. The elected members were unanimous in their opposition to the Governor's bill, and the Constitution provides that their unanimous vote shall be conclusive on financial questions. Another clause in the Constitution gives the Government power to override the vote of the Council in matters of paramount importance. Declaring this to be such, Sir Augustus Hemming announced the intention to promulgate the tariff act without the concurrence of the Council. Public meetings called for the removal of the Governor, and passed resolutions in favor of annexation to the United States. The Governor thereupon surrendered and allowed the elected members the free use of their constitutional privilege. The bill was finally passed by the Legislature in May, Mr. Chamberlain having agreed to reopen negotiations for reciprocity with the United States.

Turk's Island, which is attached to Jamaica administratively, though belonging geographically to the Bahamas, raised a revenue of £9,477 in 1897 and expended £8,384. The imports of Turk's and Caicos islands were valued at £33,239; exports, £43,303. On these keys the best of salt is produced, about 2,000,000 bushels being raked and shipped annually to the United States, Newfoundland, and Canada. From the Caymans turtles and coconuts are exported. The tonnage entered and cleared at Turk's island in 1897 was 328,374 tons.

The Bahamas have an area of 4,465 square miles, and a population of 43,521 in 1891, of whom 11,000 were whites. In 1897 it was estimated at more than 52,000. The number of births was 2,141; of deaths, 1,178. The population of Nassau, the capital, is about 6,000. The sea products are especially valuable, as sponges of the value of £90,111 in 1897, shells, pearls, and ambergris. The cultivation of sisal has been very profitable. The raising of fruits for American cities and for preserving is likewise a growing industry. The pineapples exported in 1897 were valued at £24,581; oranges at £3,398. The total value of imports was £186,010 in 1897; of exports, £149,085. The revenue of the colony was £62,754; expenditure, £63,405. The chief expenses were £18,218 for salaries, £7,219 for public works, £5,549 for police, and £8,385 for debt. The amount of the public debt is £119,026. The customs receipts were £53,456.

The Leeward Islands comprise Antigua, with Barbuda and Redonda; St. Kitt's, Nevis, and Anguilla; Dominica, Montserrat, and the Virgin Islands. They have a total area of 701 square miles, with a population in 1891 of 127,723, of whom 5,070 were white, 23,320 colored, and 99,333 pure negroes. Antigua, which is the seat of government, produces sugar and pineapples; Montserrat, bottled lime juice from groves covering 1,000 acres, also sugar, coffee, cacao, and arrowroot; St. Kitt's and Nevis, sugar and rum; Anguilla, vegetables and salt; the Virgin Islands, sugar and cotton on small plots owned by the negro cultivators; Dominica, coffee of the Liberian variety, fruits, cacao, limes, and sugar; also phosphate of lime from the island of Sombbrero. The total value of imports of Antigua for 1897 was £110,188, having declined from £144,864 in 1895, and of exports £117,202, having increased from £87,125; imports of St. Kitt's and Nevis £135,921, having declined from £172,281, and exports £149,204, having increased from £140,542; imports of Montserrat £22,269, and exports £22,063, having increased from £17,189; imports of

Dominica £54,074, having declined from £69,789, and exports £47,416, having increased from £39,471; imports of the Virgin Islands £3,301, and exports £4,033. The total exports of sugar from the Leeward Islands were £236,209 in value. The imports of cotton goods were £42,828; of flour, £17,756. The revenue of Antigua for 1897 was £46,329, of which £23,800 came from customs; expenditure, £53,417; amount of public debt, £150,671. The revenue of St. Kitt's, Nevis, and Anguilla was £45,247, of which £24,720 came from customs; expenditure, £51,795; debt, £89,450. The revenue of Dominica, £23,610, of which £10,652 came from customs; expenditure, £24,061; debt, £70,900. The revenue of Montserrat was £7,906; expenditure, £9,895; debt, £24,600. The revenue of the Virgin Islands was £1,675; expenditure, £1,776. Barbuda, although 62 square miles in extent, has been kept for three centuries as a game preserve. Besides the European fallow deer, goats, horses, and cattle run wild over the island, and the African guinea fowl is abundant. A settlement of interloping negroes is there also, and they have reverted to African conditions, with a resultant improvement in physique.

The sugar crisis has affected some of the islands of the Leeward and Windward groups more seriously than any other part of the West Indies. The members of the Legislature and citizens of St. Kitt's petitioned the British Government in March to transfer their island to the United States, failing the abolition of the sugar bounties. On Aug. 7 the Leeward Islands were swept by a hurricane as destructive as the one that devastated the Windward Islands and Barbadoes in August, 1898. Not a house nor a church in Montserrat or Nevis escaped destruction or serious damage. Three quarters of the population of Montserrat were left homeless, and the valuable lime tree orchards were demolished, as well as all the sugar cane and the growing crops of all kinds. On this island 84 persons were killed and 1,250 wounded. In Nevis 2,000 persons were left without shelter; 27 were killed. Antigua and St. Kitt's also sustained much damage. The storm afterward passed over Santa Cruz and Porto Rico.

The Windward Islands are Grenada, St. Vincent, the Grenadines, and St. Lucia. In Grenada, the seat of Government, which has an area of 133 square miles and a population in 1897 of 61,229, cacao is the chief product, occupying 11,115 acres of the total of 20,418. Spices are cultivated on an increasing scale, supplanting the sugar cane. The total value of imports in 1897 was £164,356, having decreased from £175,712 in 1895; exports, £154,439, of which £132,642 represent cacao and £13,503 spices. In St. Vincent the cultivated lands, 13,000 acres, belong to 3 firms. Sugar and rum, cacao, spices, and arrowroot are the chief products. Valuable timber is obtained from the forests. The revenue in 1897 was £25,396; expenditure, £26,520; debt, £19,100. The area of St. Vincent is 132 square miles; population, 41,054, of whom 2,445 were white, 554 colored, and 31,005 black. St. Lucia exports sugar and rum, cacao, and logwood. The area is 233 square miles, and the population in 1897 was 47,332. The value of imports was £245,253, having increased from £154,945 in 1895; of exports, £154,267. The revenue was £60,639; expenditure, £56,743; debt, £191,980. To enable the planters of St. Vincent to repair the damages caused to their estates and buildings by the hurricane of 1898 the British Government raised a loan of £50,000 and advanced the money to the colonial government, to be advanced in turn to the planters. The

greater part of the cultivable land of St. Vincent has passed into the hands of money-lending merchants. The Government has adopted a scheme for creating a peasant proprietary out of the present rack-rented tenants.

Barbadoes has an area of 166 square miles, with a population of about 190,000. Nearly the whole surface of the island is planted to sugar cane. The product of raw sugar in 1897 was 58,600 hogsheds. The exports of manjak or glance pitch, a bituminous mineral used as fuel, were 1,880 tons, valued at £3,760. The annual catch of fish is about £17,000 in value. The merchant shipping of the colony consists of 48 sailing vessels and 2 steamers, having an aggregate burden of 7,105 tons. Barbadoes is the headquarters of the British troops in the West Indies, numbering 32 officers and 815 men. There are 24 miles of railroad and telegraph line, and 635 miles of telephone line. The total value of imports in 1897 was £1,008,699; exports, £736,163. The exports of sugar were £447,430; of molasses, £86,094. The imports of flour were £57,843; of rice, £50,664; of fish, £82,457; of cotton cloth, £131,562. The tonnage entered and cleared during 1897 was 1,335,962 tons. The revenue for 1897 was £184,606; expenditure, £172,551; debt, £409,150. The revenue from customs was £106,880. The expenditure for salaries was £78,406; for debt, £31,561; for police, £23,370. No island in the world is more densely populated than Barbadoes, and no soil is better adapted to the production of sugar cane; but this is the only crop for which the soil is suitable. The great damage caused by the hurricane that swept this island in 1898 has been in part repaired by means of a loan of £50,000 obtained from the British Government. The chief agricultural station created in accordance with the recommendations of the West Indian commission has been established here under the supervision of Dr. Morris, and under the auspices of the new Imperial Department of Agriculture in the West Indies a conference was held in January to devise a co-operative policy for the promotion of the economic interests of the colonies.

Trinidad has an area of 1,754 square miles, with a population estimated in 1897 at 254,518. Of the total area of 1,120,000 acres, 442,924 acres have been sold to private owners. There are 57,000 acres planted to sugar cane, 99,500 acres to cacao and coffee, 13,500 acres to ground provisions, and 14,000 acres to cocoanuts. From the pitch lake 124,672 tons of asphalt were taken in 1897. The total value of imports in 1897 was £2,161,231, of which £309,611 were for textile goods, £127,383 for flour, and £148,777 for rice. The total value of exports was £1,994,926, of which £537,107 were sugar exports, £605,053 cacao, and £165,494 coffee. Ships of 1,296,902 tons were entered and cleared during the year. The revenue for 1897 was £567,158; expenditure, £579,027; debt, £516,518. Tobago is a dependency of Trinidad. The area is 114 square miles; population, 20,785. Cacao, cotton, and tobacco are cultivated. The imports in 1897 were £11,655; exports, £4,681. The revenue was £8,107; expenditure, £8,387; debt, £9,500. Sugar, molasses, and rum are important products in Trinidad, though no longer the mainstay of agriculture. There are 83,000 coolie immigrants, who are brought over from India and returned to their homes by the Government, as in British Guiana also, the only other colony that still employs them on a large scale. The Imperial Government has guaranteed a loan of £110,000 for harbor improvements at Port-of-Spain and the extension of the Government railroad.

British Guiana has an area of 76,000 square miles, not including 33,000 square miles between the formerly accepted limits and the Schomburgk line claimed in the dispute with Venezuela. The population in 1891 was 278,328, comprising 2,533 Europeans, 99,615 negroes and colored, 105,465 East Indian coolies, and 3,714 Chinese. In 1898 there were 4,500 Europeans, not counting 12,000 Portuguese laborers from the Atlantic islands. The numbers of Indian coolies had risen to 116,000. Georgetown, the capital, had 53,176 inhabitants. There were 79,278 acres under cultivation, of which 69,814 acres were under sugar cane. The number of sugar estates was 74. Gold mining has been carried on in the disputed territory since 1886. The total value of gold obtained in the ten years ending with 1896 was £2,796,300. The yield of the mines in 1897 was 126,702 ounces; in 1898, 125,080 ounces. The total value of imports in 1898 was £1,282,976; of exports, £1,783,764. The imports of textiles were £156,120; of flour, £139,107; of rice, £95,933; of machinery, £73,381; of fertilizers, £72,597; of fish, £45,859; of coal, £36,451; of hardware, £28,336. The exports of sugar were £1,023,523; of molasses, £9,821; of rum, £132,586; of balata, £30,957; of rice, £21,385; of gold, 125,080 ounces, value £456,436. During 1898 vessels of a total of 621,198 tons visited the ports. The shipping of the colony consisted of 116 sailing vessels, of 5,065 tons, and 16 steamers, of 1,238 tons. There are 40 miles of railroad. The telegraphs and cables, which belong to the Government, have a total length of 546 miles; telephones, 610 miles. The revenue in 1898 was £505,369, of which £294,671 came from customs, £49,780 from the duty on rum, £108,859 from licenses, and £23,902 from the royalty on gold. The chief expenditures were £156,718 for civil, £22,586 for ecclesiastical, and £37,854 for judicial purposes, £31,431 for education, and £23,800 for public works. The public debt is £949,402. The area of British Guiana is fifteen times greater than that of all the island colonies put together, and its population is as thin as that of the islands is dense, being only 2.5 to the square mile. Of the population it has less than 2 per cent. are Europeans proper. The area under cultivation is confined to the heavy, rich soil near the coast, where sugar is grown at great expense for drainage and for labor, but still with profit on the best cultivated estates. This has been the only industry of the colony, and the sugar planters who control the Government on account of the labor problem have prevented the settlement of the elevated lands of the interior. The discoveries of gold have encouraged migration of labor to the diggings, the intermittent activity of which is the only life and enterprise in this promising region. The colony has drifted almost into a state of insolvency. The deficits for the three years ending with 1898 amounted to \$469,307, and the floating debt to \$787,000. Sir Walter Sendall, the Governor, while speaking of the desirability of retrenchment, yet presented a budget for 1900 that was \$90,000 in excess of the estimates for the previous year, to which the representative section of the Legislature demanded that the expenditure should be limited. The importation of 5,000 additional Indian coolies entails an expense to the Government of \$66,000 and an obligation to provide nearly the same amount to restore them to their own country when the term of their indentures is over.

British Honduras has an area of 7,562 square miles, with a population estimated at 34,277, comprising 462 whites and 33,815 negroes and colored. The chief products are mahogany and logwood.

Cultivated products are coffee, sugar, bananas, and cocoanuts; and articles brought down for export from the neighboring countries are India rubber, coffee, and sarsaparilla. In the upland district cattle are reared. The value of the imports in 1897 was \$1,422,097; exports, \$1,404,387. The export of mahogany was 6,777,382 feet. In the year 641 vessels, of 194,144 tons, were entered, and 633, of 196,189 tons, cleared. The shipping of the colony comprised 220 sailing vessels, of 4,906 tons, and 5 steamers, of 748 tons. The revenue for 1897 was \$314,017. Duties on imports yielded \$166,618. Other sources are excise, licenses, a land tax, and sales and leases of public lands. The expenditures amounted to \$322,990. The debt was \$168,815.

French Colonies.—The French colony of *Guadeloupe* has an area of 583 square miles, with the dependent islands of Marie Galante, Les Saintes, Désirade, St. Barthélemy, and St. Martin, 688 square miles, with 167,000 inhabitants. It is represented by a Senator and two Deputies in the French Chambers. The sugar estates, 502 in number, embrace 25,400 hectares. Coffee plantations cover 3,500 hectares, and cacao is grown on 1,634 hectares. Bananas, sweet potatoes, yams, manioc, corn, tobacco, and vegetables are cultivated for domestic consumption. The trade is largely with France, whence 13,085,051 francs of imports were brought in 1897, while exports to France amounted to 11,287,915 francs. On the plantations 15,000 coolies are employed in addition to native labor. The local revenue in 1898 was 5,774,564 francs, and expenditure the same. The debt is 1,000,000 francs. The contribution of the French Government in 1899 was 1,627,037 francs. The cyclone of August, 1899, ruined the coffee and cacao crops, half demolished the town of Le Mourle, which has 10,000 inhabitants, and blew down several villages.

Martinique has an area of 381 square miles, with a population in 1895 of 187,692, divided into 90,373 males and 97,319 females. The number of French-born residents was 1,307. The number of marriages in 1895 was 624; of births, 6,026; of deaths, 5,007. St. Pierre, the capital, has 25,382 population. The products are sugar, coffee, cacao, tobacco, and cotton, besides yams, corn, and other food crops, to which 15,067 hectares were devoted. The exports of sugar in 1896 were 34,429 tons; of rum and arrack, 3,765,000 gallons. The imports from France in 1896 were valued at 18,997,565 francs, the exports to France at 12,965,952 francs. The revenue raised in the colony in 1898 was 5,096,048 francs. The contribution of France for 1899 was 2,581,848 francs. The public debt consists of an annuity of 95,000 francs.

French Guiana has an area of 46,850, including a zone on which gold has been discovered, which has been in dispute between France and Brazil. The population is 22,714, not including savage tribes in the mountainous districts. Cayenne, the capital, has 12,351 inhabitants. The country has been used as a convict colony, and agriculture and industry are backward. Gold is the chief product, and of this 101,938 ounces were shipped in 1896, of which 58 per cent. came from the disputed territory. The imports from France in 1897 amounted to 11,648,848 francs; exports to France, 10,849,482 francs. The local revenue in 1898 was 2,453,261 francs. The expenditure of France in 1899 was 6,368,139 francs, including 4,915,000 francs for the penal establishment.

Dutch Colonies.—The island colony of *Curaçao*, with the dependent islands of Bonaire, Aruba, St. Eustache, Saba, and the Dutch part of St. Martin, has an area of 403 square miles, that of

Curaçao alone being 210 square miles. The total population is 49,599, that of *Curaçao* being 28,884. The chief products are corn, beans, cattle, salt, and lime. The number of vessels entered at the ports in 1896 was 2,569, of 526,148 tons.

Dutch Guiana has an area of 46,060 square miles, with a population of 64,372, exclusive of forest negroes. Paramaribo, the capital, has about 30,000 inhabitants. The production of sugar in 1896 was 10,390,747 kilogrammes; of cacao, 3,088,194 kilogrammes; of bananas, 562,949 bunches; of coffee, 280,875 kilogrammes; of rum, 1,000,747 litres. The output of the gold mines was 874,897 grammes, valued at 1,198,600 guilders. The total production from the discovery of the gold fields in 1876 was 20,694,380 guilders. Stamp mills have recently been erected for treating quartz, the mining hitherto having been alluvial. The total value of imports in 1897 was 5,635,161 guilders; of exports, 5,241,671 guilders. The local revenue for 1897 was 2,348,000 guilders, and the expenditures were 2,348,000 guilders, the difference being made up by a contribution from the Dutch Government.

Danish Colonies.—The islands of *Santa Cruz*, *St. Thomas*, and *St. John* belong to Denmark. Their area is 138 square miles, and their population 114,229, mostly negroes, who raise sugar and make rum for export. The imports of Denmark from these islands in 1897 were valued at 2,959,000 kroner, and exports to the islands at 4,130,000 kroner. The imports from them into Great Britain were £20,122, mainly sugar, and British exports to them were £55,086. *Santa Cruz* was visited on Aug. 8 by a cyclone that nearly destroyed the town of Frederiksted as well as most of the sugar estates.

WEST VIRGINIA, a Southern State, admitted to the Union June 19, 1863; area, 24,780 square miles. The population, according to each decennial census, was 442,014 in 1870; 618,547 in 1880; and 762,749 in 1890. Capital, Charleston.

Government.—The following were the State officers during the year: Governor, G. W. Atkinson; Secretary of State, William M. O. Dawson; State Superintendent of Free Schools, J. R. Trotter; Auditor, L. M. Lafollette; Treasurer, M. A. Kendall; Attorney-General, Edgar P. Rucker; Librarian, P. S. Shirkey; State Bank Examiner, O. B. Wetzel; Adjutant General, J. W. M. Appleton; Commissioner of Labor, I. V. Barton; Chief Mine Inspector, J. W. Paul; Game and Fish Warden, Frank Lively—all Republicans; Presiding Judge of the Supreme Court of Appeals, Marquand H. Dent; Associate Judges, Henry Brannon and H. C. McWhorter; Clerk, J. A. Holley—all Democrats except McWhorter, Republican.

Finances.—As an official statement of the finances is issued only once in two years, there is nothing new to report this year. The Annual Cyclopædia for 1898 contains a statement covering the biennial period ending Sept. 30, 1898. The estimated receipts of the treasury during the fiscal year ending Sept. 30, 1899, according to the State Auditor's report, included the following items: State tax for 1898, \$375,000 from the State and \$250,000 from the general school fund; license tax, 1899, \$90,000; license tax, 1898 and previous years, \$80,000; interest on deposits of public funds, \$12,500 from the State and \$12,500 from the general school fund; tax on gross receipts of insurance, express and telegraph companies, \$22,000; license tax on charters, \$90,000; dividends on stock held by the Board of the School Fund, \$11,000. The total estimated receipts for the fiscal year ending Sept. 30, 1899,

were as follow: State, \$722,000; general school fund, \$349,500; school fund, \$32,000. The total estimated expenditures for the same period, \$599,235, include the following: West Virginia School for the Deaf and Blind, \$34,600; West Virginia Reform School, \$18,600; Hospital for the Insane at Weston, \$127,500; Second Hospital for the Insane at Spencer, \$41,800; State Board of Agriculture, \$5,000.

Railroads.—An official statement as to the assessed value of railway property, based on returns for the year ending Dec. 31, 1898, and subject to levy for 1899, shows 51 lines operating within the State. The grand total of all taxable property belonging to the most important lines is as follows: Chesapeake and Ohio, \$4,554,260.50; Baltimore and Ohio (main line), \$5,167,804.80; Norfolk and Western, \$3,133,883; Ohio River, \$1,459,337.38.

Agriculture.—The latest official report of the State Board of Agriculture says: "Of our estimated 825,000 population, fully 473,000 are found upon our 75,000 or more farms, and are sustaining themselves, with much to spare, in some sections, at least, to feed the remaining 352,000 who are engaged in the other callings and professions. Farming in West Virginia is much more profitable than in many of the Western and Northwestern States. The State is well adapted to general agriculture, including fruit growing and stock raising. According to recent figures the percentage of incumbered farms in one of the Western States was more than 55 per cent., and nearly as much in 8 other States—the so-called great agricultural States—and the average for the United States is more than 28 per cent. In West Virginia it was less than 13 per cent. of the whole, there being probably not more than 7,000 incumbered farms in the State. . . . Nearly half of our total area is cleared and in use for farming and grazing, while the remainder is covered with valuable timber, underlaid with beds of coal, oil, or gas. A very considerable area of the forest lands is untouched by the woodman's axe, and only a beginning has been made upon our coal and oil area."

The acreage and yield of the principal crops, Sept. 30, 1898, was as follows: Corn, 624,037 acres, yielding 17,293,210 bushels; wheat, 376,420 acres, yielding 4,525,045 bushels; oats, 188,087 acres, yielding 4,707,755 bushels; Irish potatoes, 20,283 acres, yielding 2,632,780 bushels; hay (all kinds), 569,962 acres, yielding 753,700 tons.

At the same date the number and value of farm animals were as follow: Horses, mules, asses, and jennets, 169,106, valued at \$6,003,055; cattle, all ages, 579,002, valued at \$14,326,550; sheep, all ages, 785,763, valued at \$2,802,409; hogs, all ages, 390,839, valued at \$1,789,040.

Mining.—From the latest available report of the Chief Mine Inspector, showing conditions for the year ending June 30, 1897, the following facts appear: Counties in which coal is mined on a commercial scale, 20; firms operating coal mines on a commercial scale, 215; openings of all kinds subject to the mining law, 350; tons (2,240 pounds) of pick-mined coal from commercial mines, 10,791,482; tons of machine-mined coal from commercial mines, 600,418; estimated tons of coal from small mines, 133,929; tons of coal converted into coke, 2,090,304; tons of coke manufactured (2,000 pounds), 1,374,497; value of coal at the mines, \$8,229,198; value of coke at the ovens, \$1,718,121.25; value of a ton of coal at the mines (2,240 pounds), 70.3 cents; value of a ton of coke at the ovens (2,000 pounds), \$1.25; mining machines in use, 55; coke ovens in use, 8,046; pick miners em-

ployed in commercial mines, 13,218; machine operators and miners employed in commercial coal mines, 652; other underground employees in commercial coal mines, 3,199; outside employees connected with the commercial coal mines, 2,047; number of coke employees, 2,306; total number of men employed at the commercial mines and ovens, 21,422.

Political.—The Democratic caucus of the Legislature on Jan. 18 nominated John T. McGraw for United States Senator, the ballot being: McGraw, 35; Watts, 5; Anderson, 2; Wilson and Bennett, each 1. The nomination of McGraw was made unanimous. The Republican caucus was held on Jan. 19. On the first ballot Nathan B. Scott received 18 votes; Gov. Atkinson, 14; Goff, 5; Poffenbarger, 6; Caldwell, 2; Gaines, 1. On the fourth ballot Scott received 24 votes, a majority of the caucus, but not of all the Republican members of the Legislature. Eighteen ballots were taken, the final result giving Scott 28, Goff 15, and Atkinson 3. The House and Senate took a ballot on Jan. 24, with this result: Scott, 46; McGraw, 46; Goff, 1; Blizzard (Republican), 1. The joint ballot was taken on the following day, resulting in the election of Scott, the vote being: Scott, 48; McGraw, 46. The Democrats filed protests against the votes of Senators Getzendanner and Pierson, declaring that they had forfeited their seats by accepting commissions in the army, which they resigned before the Legislature convened.

WISCONSIN, a Western State, admitted to the Union May 29, 1848; area, 56,040 square miles. The population, according to each decennial census since admission, was 305,391 in 1850; 775,881 in 1860; 1,054,670 in 1870; 1,315,497 in 1880; and 1,688,880 in 1890. By the State census of 1895 it was 1,937,915. Capital, Madison.

Government.—The following were the State officers in 1899: Governor, Edward Scofield; Lieutenant Governor, Jesse Stone; Secretary of State, William H. Froehlich; Treasurer, James O. Davidson; Attorney-General, Emmett R. Hicks; Superintendent of Education, L. D. Harvey; Railroad Commissioner, Graham L. Rice; Insurance Commissioner, Emil Giljohann; Adjutant General, C. R. Boardman; Dairy and Food Commissioner, H. C. Adams; Labor Commissioner, Halford Erickson; Bank Examiner, E. I. Kidd; Health Commissioner, F. M. Schultz; Fish and Game Warden, J. T. Ellarson; Tax Commissioners, Michael Griffin, George Curtis, and Norman S. Gilson; Chief Justice of the Supreme Court, J. B. Cassoday, Republican; Associate Justices, John B. Winslow and Joshua E. Dodge, Democrats, and Charles V. Bardeen and Roujet D. Marshall, Republicans; Clerk, Clarence Kellogg. With the exceptions mentioned, all the elected officials are Republicans.

Finances.—The estimate of expenses for the biennial period 1899–1900, as given in the message in January, was, not including any special appropriations, \$6,877,372; and the estimated income \$6,830,850. The measures taken to increase the revenue and the decisions in regard to special appropriations will be found under Legislative Session. The Board of Equalization raised the total valuation of the property in the State for assessment from \$600,000,000 to \$625,000,000. Under the new insurance law, the additional taxes paid by the stock life companies were estimated at \$167,396.19 for 1899, of which \$152,739.21 was from the Northwestern Mutual Life of Milwaukee. The law taxing express, sleeping car, freight line, and equipment companies also makes a considerable addition to the income. The debt

of the State, which is in certificates to the trust funds of the educational interests, amounts to \$2251,000.

Education.—The school population in 1898 was 708,535; the enrollment in public schools, 430,827; of these, 306,000 were in schools under county superintendents, which cost \$3,171,000, and were taught by 9,800 of the 13,465 public-school teachers in the State. There were 72 county superintendents. The number of high schools has increased to 220, and the Legislature increased the appropriation for them from \$50,000 to \$100,000.

A committee appointed by the Teachers' Association to investigate and report on the advisability of shortening the time for the grade school work now requiring eight years, reported against any change in the length of the course, though in favor of other changes—more study of language as one. The school fund distribution in December was on a basis of \$1.102 to each person of school age.

The enrollment at the university in 1898 was 1,767, the number of instructors 125. The receipts were \$447,434.66; the expenses, \$449,330.16. A summer session of six weeks was decided upon for the present year—a new departure. The short course in agriculture in winter was attended by 249 students.

The enrollment in the 7 normal schools was 2,797, and the expenses for two years were \$662,304.13.

There are 16 day schools for the deaf, 4 in Milwaukee. The State aid is limited to \$150 per capita for nine months' instruction. A bill to furnish them with a superintendent was defeated. They have an enrollment of 160 pupils. The State school is at Delavan, and has nearly 200 pupils enrolled. The School for the Blind, at Janesville, has more than 100 pupils, with an average of 83, and costs about \$36,000.

State Institutions.—The secretary of the Board of Control gives a table showing the cost for the year of subsistence at the State institutions, excepting the Reformatory, reports for which were not in. The average was \$63.62 for each of the 2,617 inmates; but as this includes also the subsistence of the 597 officers and employees of the same institutions, the actual average for the inmates themselves is a little more than 20 per cent. less. The total amount is \$166,505.11. There are altogether 597 officers, employees, and teachers in these institutions.

The cost of care of the chronic insane in county asylums for the year ending Sept. 30 was \$354,479.29.

The new reformatory at Green Bay for first offenders from sixteen to thirty had in February 30 inmates, with 25 more to be admitted. When the buildings are complete there will be accommodations for 600. The site comprises 200 acres 3 miles from the city.

Railroads.—There are 46 lines of road reporting to the commissioner, in 42 systems. The value of railroad property is about \$300,000,000. The taxes paid this year amounted to about \$100,000 more than in 1898.

The Kickapoo Valley road was sold in October, under a mortgage foreclosure, for \$500,000. The mortgage was for \$600,000. The line was in operation from Wauzeka to La Farge, about 54 miles, and is completed to Readstown, a total of 84 miles.

Banks.—The report of the condition of the banks on Sept. 7 shows resources and liabilities of \$63,302,388.98. Compared with their condition April 5, the changes are as follow: Increase in

resources and liabilities, \$2,773,634.78; increase in loans and discounts, \$2,401,182.32; increase in bonds, stocks, and securities, \$649,666.44; increase in surplus and profits, \$79,807.74; increase in deposits, \$2,803,230.75; decrease in capital, \$153,430.80; decrease in available cash, \$268,286.67.

Insurance.—The receipts of the insurance department for 1899 show an increase over the previous year of \$149,673.76. The total receipts for the past year were \$388,448.19. These came from the following sources: Taxes, \$312,078.79; license fees, \$28,600; agents' certificates, \$28,091; filing annual statements, \$8,140; interest, \$9,713.40; copies of statement, \$933.05; filing charters, \$700; certificates and seals, \$149.95; service of summons, \$42. Of the \$28,600 collected for license fees in 1899, \$19,200 was for back taxes. There are now 325 licensed insurance companies doing business in the State, an increase of 18 in the year.

Political.—At the election, April 4, two justices of the Supreme Court were chosen. John B. Cassoday was elected for the full term, to succeed himself, and Joshua Eric Dodge to fill the unexpired term which he was appointed to fill temporarily upon the resignation of Judge Pinney.

New Richmond.—This little city, in St. Croix County, in the extreme western part of the State, was almost totally destroyed by a cyclone, June 12. The loss of life was very great; estimates placed it at 150 to 200; and one fourth to one half the population of about 2,000 were said to be injured. Aid was sent from other parts of the State and from neighboring States, notably from Minnesota, and the rebuilding of the town was begun within a week. The same storm caused damage in Barron, Clear Lake, and other places.

Legislative Session.—The session of the Legislature began Jan. 11 and ended May 4. L. W. Thayer was President *pro tempore* of the Senate and George H. Ray was Speaker of the House.

The term of John L. Mitchell as United States Senator ended this year, and the Legislature balloted several days for a successor, the Republican candidates being Joseph V. Quarles, Joseph W. Babcock, Isaac Stephenson, Samuel A. Cook, and Charles M. Webb. T. E. Ryan was the candidate of the Democratic members. On Jan. 30 Mr. Quarles was nominated in the Republican caucus, and he was elected in joint convention, Jan. 31, by a vote of 110 to 18 for Mr. Ryan.

Many important measures became law. Among them was the so-called antilobby bill, designed to prevent secret lobby influence. It requires agents of those interested in legislation to register in dockets kept by the Secretary of State for that purpose. They must enter opposite their names the number and title of every measure concerning which they are employed, also the name, occupation, and address of the employer; and they must file written authority from him. Thirty days after adjournment the employer must file a sworn statement of all moneys expended. Severe penalties are prescribed for a violation of any of these provisions, and lobbyists may be shut out from legislative privileges. Another measure, designed to protect weak legislators and officials, was the antipass bill. This forbids the giving or offering of any free pass or frank, or any privilege withheld from any person, for the traveling accommodation or transportation of any person or property, or the transmission of any message of communication, to any "political committee, or any member or employee thereof, to any candidate for or incumbent of any office or position under the Constitution or laws, or under any ordinance of any town or municipality, of this State, or to any person at the request or for the advantage of

all or any of them," and forbids the acceptance of such privileges by such committees, candidates, or incumbents. Any violation of the law is to be punished by imprisonment in the State Prison not more than five years nor less than one year, or by fine not exceeding \$1,000 nor less than \$200. An amendment to the Constitution, which was referred to the next Legislature, provides that the giving or accepting of a free pass or frank shall be deemed bribery. Other constitutional amendments proposed and referred to the next Legislature authorize State highway taxes and give the Legislative power to pass a general banking law. Instead, of repassing the amendment referred by the Legislature of 1897, fixing the term of the State School Superintendent at two years, this Legislature passed and referred to that of 1901 an amendment fixing it at four years. The other amendment of 1897, authorizing the Legislature to limit taxation in cities and towns, was not repassed. A tax commission appointed by the preceding Legislature to gather and submit information relating to taxation in this State and elsewhere made its report this year, and an act was passed providing for a commissioner of taxation and first and second assistant commissioners. The term of office is ten years. An act concerning life insurance companies provides for the stipulated premium plan and largely increases the income from these companies. Another revenue measure is for assessment of sleeping car, express, freight line, and equipment companies on the basis of their property in the State, at the average rate of taxation, State and local together, in the State. A direct inheritance tax is to be collected (1 per cent.) and a collateral tax of 5 per cent., on personal property exceeding \$10,000. The general act relating to negotiable instruments, which was recommended by the conference of commissioners on uniform legislation and has been adopted by many of the States, was enacted into law. Provision was made for reorganization of the militia on the system of the regular army. The marriage license law was amended; county clerks must give the license five days before the ceremony takes place, and may not grant to minors without the written consent of parents or guardians. The caucus law of 1897 was amended by the omission of the requirement for the preliminary meeting. Some minor amendments to the election laws were made. The game law was amended; the close season for aquatic wild fowl begins Jan. 1, instead of May 1. Hunters must be provided with licenses, excepting that a resident of the State may hunt any kind of game in the open season, except aquatic fowl or deer, provided he does not use a dog. Thirty special deputy game wardens are authorized. The law governing the State Reformatory was generally amended. The State Board of Control is to inspect twice a year the sanitary arrangements and fire equipment of county asylums, poorhouses, and jails, and is authorized to visit charitable institutions under corporations. The limit of the total tax of a city was raised from 3 to 3½ per cent. of the total valuation. Cities may levy a poll tax of \$1.50. Land sold for city taxes may be redeemed in three years with interest at 15 per cent. Electric railway, light, and power companies have their license fees increased. It was provided that before the salary of a circuit judge is allowed he must swear that no case submitted to him has remained undecided for ninety days, exclusive of time when he has been disabled by illness. Besides the new law for taxation of life insurance companies already referred to, there were other regulations of insurance busi-

ness. College graduates may be authorized to teach on filing evidence that they have given the required amount of study to pedagogy and psychology, and college or normal graduates may receive unlimited certificates after experience—one year for home graduates and two for foreign. County boards may establish training schools except in counties having State normals. Adjoining districts, towns, etc., may unite to establish high schools. The limit of State aid to high schools is raised from \$50,000 to \$100,000, of which not more than \$75,000 may be paid to graded districts. A special commissioner is to investigate the subject of manual training and the study of agriculture.

Acts to assist in forming and circulating libraries were passed.

Among other enactments were the following:

Providing for the branding and sale of renovated butter.

Requiring employers of labor to provide seats for the use of women employees when they are not on active duty.

Regulating the manufacture of cigars.

Prohibiting discrimination by employers against union labor.

Regulating employment agencies.

Making it a misdemeanor to threaten an employee or promise higher wages in order to influence his vote; and providing that when an employer requires notice from an employee intending to quit work on penalty of forfeiture of wages, he shall be liable to the same amount for discharging without notice.

To regulate child labor.

To regulate the manufacture of clothing and tobacco goods in dwellings.

Continuing the geological survey, and appropriating \$10,000 annually for two years.

Continuing the Board of Immigration.

Creating fire and police pension funds in cities of 150,000 inhabitants.

Authorizing mutual bicycle insurance companies, also companies to insure against losses by burglary and mail robbery, and against loss of hogs by disease.

Authorizing incorporation of canal and stream improvement companies.

To prevent forest fires.

Providing that the State, counties, and municipalities shall have no preference over other creditors of insolvent banks.

Admitting destitute army nurses and mothers of Union soldiers to the Soldiers' Home.

Raising the age of consent from fourteen to eighteen years.

Reducing the bounty on wolves from \$5 to \$3, and on wildcats and lynxes from \$3 to \$1, to be paid by the county, with an equal sum from the State.

Providing for inspection of nursery stock.

To prevent adulteration of linseed oil.

Providing that license may be refused to an exhibition employing acrobats under fifteen years of age.

Making it a misdemeanor to advertise an indecent play.

The act of 1897 for licensing plumbers was this year declared partly void. In providing that in the case of a firm or company the licensing of one member is sufficient it is held to discriminate against plumbers doing business alone, and therefore to violate the constitutional requirement of equal protection.

Some of the appropriations were as follow: To the State University, \$268,000; \$30,000 to the Agricultural College, and \$15,000 to the College of Mechanics and Engineering; to the State Fire

men's Association, \$1,000; for sufferers by forest fires in Barron County in 1898, \$10,000; for improvements at the Veterans' Home, \$35,000; additional for use of Fish Commissioners, \$6,000 annually; to normal schools, for buildings, \$75,000; to the reformatory at Green Bay, \$100,000 for maintenance for two years and \$150,000 for buildings; to the Girls' Industrial School, \$16,000 for buildings and repairs; for the Institution for Feeble-minded at Chippewa Falls, \$158,000; for exhibit at the Pan-American Exposition, \$25,000; to the Wisconsin Battle Ship Commission, to buy a silver service and a bronze badger for the ship, \$10,000.

WYOMING, a Northwestern State, admitted to the Union July 10, 1890; area, 97,890 square miles. Population in 1890, 60,705. Capital, Cheyenne.

Government.—The following were the State officers during the year: Governor, De Forest Richards; Secretary of State, F. Chatterton; Treasurer, G. E. Abbott; Auditor, Leroy Grant; Adjutant General, Frank A. Stitzer; Attorney-General, J. A. Van Orsdel; Superintendent of Education, T. T. Tynan; Supreme Court: Chief Justice, C. N. Potter, Republican; Associate Justices, Samuel T. Corn, Democrat, and Jesse Knight, Republican; Clerk, R. C. Morris.

Finances.—The report of the State Board of Equalization shows an assessed valuation of \$35,578,806.32, an increase of \$4,789,514.58 over that of 1898. The year 1899 shows a gain of \$107,322.97 in the value of railroad property over 1898, a gain of \$1,050,909 in the value of cattle, a gain of \$1,467,516.70 in the value of sheep, and a gain of \$230,197 in the value of horses.

The report of the State Board of Charities and Reform for the year ending Sept 30, 1899, included the following items: Expense of State prisoners, \$22,303.96; juvenile delinquents, \$1,769.11;

deaf and blind, \$1,612.45; insane, \$14,235.39; Soldiers' and Sailors' Home, \$5,523.23; Wyoming General Hospital, \$16,281.10.

The earnings of State institutions as paid into the treasury during the year were as follows: Penitentiary, care of United States prisoners, \$1,817.80; Hospital for Insane, care of private patients, \$714; General Hospital, care and treatment of patients, \$13,766.97; Soldiers' and Sailors' Home (national aid, \$1,898.12; pensions retained, \$409), \$2,307.12; total, \$18,605.89.

Taxation.—The tax levies for State purposes were placed at the following rates upon each dollar of assessed valuation: For general fund, $3\frac{1}{2}$ mills; university income fund, $\frac{1}{4}$ mill; fund for insane, $\frac{1}{4}$ mill; State bond tax fund, $\frac{1}{4}$ mill; Capital tax fund, $\frac{1}{4}$ mill; State Hospital maintenance fund, $\frac{1}{4}$ mill; university building fund, $\frac{1}{8}$ mill; Big Horn Hot Springs fund, $\frac{1}{8}$ mill; Hospital for Insane building fund, $\frac{1}{8}$ mill; General Hospital building fund, $\frac{1}{8}$ mill; total, 6 $\frac{1}{2}$ mills.

Sheep.—The sheep industry assumed gigantic proportions in 1899. In 1898 Wyoming ranked third among the wool-producing States, with a total clip of 17,000,000 pounds, Montana and Oregon occupying first and second places respectively. It is estimated that the wool clip for 1899 will aggregate 20,000,000 pounds.

Mining.—In 1898 the coal mines of the State produced 3,046,846 tons more than in the previous year. During the fiscal year ending Sept. 30, 1899, the output was 3,727,325 tons, an increase over 1898 of 680,479 tons.

There are now 20 coal mines, employing 5 men or more, in active operation in Wyoming.

Political.—The Legislature, 1899, consisted of 6 Democrats in the Senate and 3 in the House, 13 Republicans in the Senate and 35 in the House. On Jan. 25 Clarence D. Clark, Republican, was re-elected United States Senator.

Y

YUKON DISTRICT, THE CANADIAN.

Government.—This great gold-bearing region was the subject of a very wide political discussion in 1899, as well as of continued interest because of its mineral wealth. In 1898 the central topic of controversy had been the question of a railway from the coast; in 1899 it was one of general administration. On March 20 Sir Hibbert Tupper introduced into Parliament a long resolution preceded by an elaborate speech denouncing the Dominion Government for maladministration, and even corruption, in the Yukon territory. He was replied to by the Hon. Charles Sifton, and after a heated and prolonged debate the motion of censure was thrown out by a strict party vote—82 to 32—with the exception of 3 western Liberal members, who supported Sir Hibbert.

The political point of the whole controversy was Sir Hibbert Tupper's demand for a royal commission of inquiry to take evidence under oath and to be composed of impartial men. This was refused by the Government, although Sir Hibbert offered to retire from public life if he could not prove his principal charges. The exact truth will perhaps never be known. There is no doubt that the administration of the region is now on a perfectly fair and honest basis. On July 7 Mr. Ogilvie's report on the personal inquiry made by him as commissioner concluded with the following words: "How did these rumors get started and become so generally cred-

ited? In reply, I may state that there is a large percentage of population here who are watching for the chance to make something. If they are forestalled by some one else, they immediately jump to the conclusion that there has been something crooked between that some one else and the officials by whom the transaction was consummated. It has not been necessary to do more than insinuate that some official or officials have been guilty of corrupt acts to have it within a few hours generally so reported, and, I regret to say, generally so believed, notwithstanding that there may not be a tittle of evidence in support of the charge. Transactions that have been actuated by the purest and highest motives have been attributed to the very worst. Of this I have personal knowledge and experience. In concluding, I may say that with such a class there can not exist (in their minds at least) any honest government at all, for reasons that are obvious enough not to need mention."

In September, 1899, A. B. Perry, superintendent of the Northwest mounted police, and E. C. Steele, Gold Commissioner, were placed upon the Yukon Executive Council.

Mines.—On April 8, 1899, the Klondike Nugget declared that the output for the coming season would be more than double that of the last, and royalty would be paid on more than \$8,000,000, while evasions and exemptions would bring up the total production to twice that figure.

This statement illustrates the difficulties of giving detailed facts regarding the gold output of the Yukon. The value of the chief creeks is now well known, and any that fail to reach the mark have been compensated for in the past by new discoveries. The correspondent of the *Toronto Globe*, commenting on the spot upon this estimate of \$16,000,000 as a result of the ensuing "wash-up," declared that the result would be nearer \$25,000,000, and mentioned rich mines that had been omitted from the calculation. Early in January two Ottawa geological experts—R. G. McConnell and J. B. Tyrrell—reported briefly to the Interior Department regarding the general situation, and the following is a summary of their report: They declared that the productive part of the Klondike gold district, as at present known, covers an area of 1,000 square miles, and is between the Klondike and Indian river tributaries of the Yukon and east of the latter river. The region is traversed by a multitude of streams flowing in deep, troughlike valleys. The larger creeks are separated by long ridges, gashed by the smaller streams, and terminating upward in even slopes or lines of rounded hills. The forest growth, which generally covers the district, consists principally of black and white spruce, with some birch and poplar. The approximate area of 1,000 square miles of known gold fields refers to the district traversed by the gold-bearing creeks, and not to the actual area of pay gravels. The latter are confined to the bottoms of a few of the valleys and the lower slopes of the adjoining ridges, and occupy a much smaller area. The rich creeks, so far, are only four—Eldorado, Bonanza, Hunker, and Dominion—and the greater portion of the yield of the past two years has come from the Eldorado and Bonanza. The proved portions of the four producing creeks have an aggregate length of about 30 miles. A number of tributaries of the producing creeks and other streams—such as Bear, Sulphur, Too Much Gold, and All Gold—have yielded small amounts. The gold occurs in the gravels flooring the bottom of the valleys, and in a remarkable moraine or glacial deposit which forms a southern slope of Eldorado and Bonanza creeks for some miles, and which was also found north of the latter creek for some distance above its junction with Eldorado. The stream gravels have a thickness of 2 to 8 feet, and a width along the most productive portions of Eldorado and Bonanza creeks of 100 to 400 feet. They extend across the valley bottoms and increase in width with the gradual enlargement of the latter toward their mouths. The gravels are everywhere auriferous, but the concentration is irregular, and the gold increases in quantity toward the

bottom of the section. The greater part of the pay is usually found within a foot and a half of the bed rock. A considerable portion of the gold is also found in the soft, decomposed, and shattered country rock, on which the gravels rest, into which it has sunk often to a depth of two feet. The beach gravels are of less importance than the stream gravels, and, so far, are worked to a considerable extent only along Bonanza and the lower part of Eldorado creek. The hillsides on the lower portions of the creeks could be washed down by strong streams. Attention is called to the necessity of wagon roads, which could easily be built through the whole country.

The final official announcement of gold production in the Yukon for 1899 was \$7,000,000, and this sum must have been doubled in fact through evasion of the authorities and the tax.

Telegraphic Communication.—On Oct. 5, 1899, a *Toronto* newspaper received the first dispatch by wire from Dawson City to Skagway. Thence the message went to the coast—a six days' voyage—and then it was telegraphed from New Westminster to Toronto. This was the result of a charter granted in 1898 to an English company, with which the late Sir John Pender was connected, and the removal of the almost complete isolation of the country quickly had a beneficial effect upon general conditions.

Dawson City.—D. C. Fraser, M. P., on Oct. 13, 1899, gave the following description of the Yukon capital, which he had just visited: "In the city of Dawson, which has from 8,000 to 10,000 inhabitants, better order prevails, and greater security for life and property, than there is in any other Canadian town with the same or a smaller population; and this is all the more surprising when the cosmopolitan character of the people there is considered. Although there are an enormous number of men of sterling character in and about Dawson, yet there is quite an element that needs watching, and to the Northwest mounted police alone is due the satisfactory condition of affairs at present existing there. A few mounted police in Dawson without any effort—through the knowledge the lawless element has of how they will be dealt with if they transgress—keep the town in most excellent order. Such as come for trial before those charged with the administration of the law are summarily dealt with. No lecturing or moral suasion is attempted by the presiding official. If the prisoner is found guilty he is either fined or, as is usually the case, sent to jail with hard labor on the wood pile, the latter punishment being one that every criminal in Dawson dreads. Dawson has several fine blocks, with plate-glass fronts, and the premises in every respect are modern."

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